Proceedings of the
National Level Workshop
on
OUTCOME BASED EDUCATION (OBE)
POSSIBILITIES AND CHALLENGES
(Under Assistance of UGC Autonomous Grant)

ज्ञान-विज्ञान विमुक्तये

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Organised by:

INTERNAL QUALITY ASSURANCE CELL
Akkineni Nageswara Rao College
Autonomous & Affiliated to Krishna University
Gudivada-521301, Krishna District, Andhra Pradesh

National Level Workshop

on

OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES

(Under Assistance of UGC Autonomous Grant)

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ANDHRA PRADESH STATE COUNCIL OF HIGHER EDUCATION

(A Statutory Body of the Govt. of A.P.)

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Prof. K. Hemachandra Reddy
Chairman

Message

I am happy to know that Akkineni Nageswara Rao College, Gudivada is organising a National level Workshop on Outcome Based Education- Possibilities and Challenges on 22nd November 2019. The Education system in India is designed, from ages, keeping in mind the outcomes of the education at different levels. However, they are not explicitly and clearly defined and described and communicated. All the stakeholders of the education system had their own assumptions on the outcomes which are often not in consistence and many times became conflicting to each other. The absence of clearly defined learning outcomes created confusions in the system and as a result the gap between expectations of the industry and the competencies of the students coming out of the education institutions is widening.

The University Grants Commission has rightly identified the gap and working on developing Learning Outcome Based Curriculum Framework for all the higher education programmes. This approach makes the system more focussed with absolute clarity on what kind of education is imparted and why and how it is being given to the students. I am happy to inform that APSCHE has already taken the initiative of designing Outcome Based Curriculum in all under graduate programmes and a Committee is working hard to introduce the new curriculum from the academic year 2020-21.

The theme chosen for the workshop is timely and relevant. I congratulate the organizers and extend my warm greetings. I wish the workshop will generate valuable outcomes.

Professor K. Hemachandra Reddy

Chairman

Andhra Pradesh State Council of Higher Education

Prof. K. Rama Mohana Rao
Vice Chairman

Dt: 26.12.2019

Message

I am extremely happy to know that ANR College, Gudiwada is organizing a National workshop on Outcome Based Education. The higher education system in India has not adapted to the modern systems of learning and in a way lost its focus. Majority of the graduates are unable to rise to the expectations of the business, industry and other sectors of the economy due to the reason that there is a mismatch between what is expected by the industry and what is learned at the education institutions. It is the time to realize the gaps and find the ways to fill them with an objective of developing global level competencies among students. Outcome based education is a wonderful strategy to train the human resource in such a way that can make them face challenges in future. It helps in eliminating irrelevant and helps in focusing on relevant areas of learning.

I congratulate the Management and the organizers of the workshop for choosing the right theme. I wish the workshop a grand success.

Best wishes

(K. RAMA MOHANA RAO)

Prof. Y.K. Sundara Krishna
Vice-Chancellor (i/c)

MESSAGE

I am elated to learn that Akkineni Nageswara Rao College (Autonomous), Gudivada is organising a National Level Workshop on **Outcome Based Education (OBE) – Possibilities and Challenges** (Under Assistance of UGC Autonomous Grant) on 22nd November 2019. Krishna University, right from its inception has a good working relation with A.N.R. College. I also recall how A.N.R. College successfully organized a Workshop on **Standardizing Question Paper Setting under CBCS Pattern** in August 2015 in association with RUSA and Krishna University.

Though the college is functioning in a rural setting it has been providing relevant programs in tune with the changing needs of our state. UGC said *"A high priority task in the context of future education development agenda in India is fostering quality higher education."* Along with APSCHE, Krishna University has been taking initiatives in our state to see that the directions of the UGC are taken up by Colleges in Andhra Pradesh.

I believe that such workshops like this will bring academics together and serve the cause of education. I congratulate the organizers of this workshop and extend my warm wishes. I am sure that Akkineni Nageswara Rao College will continue to maintain its excellence and character with great distinction.

Prof. Y. K. Sundara Krishna
Vice-Chancellor
Krishna University

<u>Message</u>

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I am glad to know that Akkineni Nageswara Rao College, Gudivada is conducting a National Level Workshop on *Outcome Based Education (OBE) Possibilities and Challenges* under the assistance of UGC Autonomous Grant. This is a pioneering workshop which comes under the ambit of UGC's LOCF. We at K.L. University organised such an event mainly for faculty and students of Engineering Colleges. It is heartening to say that A.N.R. College, though situated mainly in a rural locale, has taken up this task of organising a workshop on OBE. I hope that there will be elaborate discussions on Course Outcomes, Program Outcomes and Program Specific Outcomes. The theme chosen for the workshop is of a topical nature and since I am invited to be Chief Guest for the Valedictory Session, I wish to see first-hand the participants and their experiences. I wish the organisers the very best in this endeavour.

KONIJETI RAMA KRISHNA

Parvataneni Nageswara Rao

President

ఫలిత ఆధారిత విద్య (OBE)

1950లో ప్రారంభించిన ఈ కళాశాల కాలానుగుణంగా అనేక రకాల కొత్త కోర్సులను ప్రారంభిస్తూ విద్యా వ్యాప్తికి కృషి చేస్తున్నది. ఈ 69 సంవత్సరాల ప్రయాణంలో ఎటువంటి ఒడిదుడుకులు ఎదురైనా పట్టుదలతో యాజమాన్యం, సిబ్బంది, విద్యార్థులు ఈ కళాశాల ప్రాభవాన్ని పెంచటానికి కృషి చేస్తున్నారు. దీనిలో భాగంగానే అనేక దేశస్థాయి, రాష్ట్రస్థాయి సదస్సులను ఈ కళాశాలలో నిర్వహించాము. మేము నిర్వహించిన సదస్సులకు పలు రాష్ట్రాల నుంచి అధ్యాపకులు, యు.జి.సి. అధికారులు నాక్ అధికారులు విచ్చేశారు.

ఫలిత-ఆధారిత విద్య అనేది ఒక విద్యా సిద్ధాంతం. ఇది విద్యా వ్యవస్థ యొక్క ప్రతి భాగాన్ని లక్ష్యాల (ఫలితాల) చుట్టూ ఉంచుతుంది. విద్యా అనుభవం ముగిసేనాటికి, ప్రతి విద్యార్థి లక్ష్యాన్ని సాధించి ఉండాలి. ఇటువంటి సదస్సులు అధ్యాపకులలో విస్తృతమైన చర్చలు జరగటానికి విద్యా బోధన ప్రమాణాల్ని పెంచటానికి ఉపయోగపడతాయని నమ్ముతున్నాను.

Parvataneni Nageswara Rao
President
A.N.R. College Committee

AKKINENI NAGESWARA RAO COLLEGE
(with Post - Graduate Courses)
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K. S. APPA RAO   91-8674-242145, 245737, 243950
SECRETARY & CORRESPONDENT   Mobile - 9849047592

MESSAGE

The Akkineni Nageswara Rao College, started as "The Gudivada College" in 1950 is the result of the munificence and zeal for higher education of the people of Gudivada Taluk and of the neighbouring taluks in Krishna District.

The mission of the College is to provide education to the youth from agrarian background and to cater to the societal needs by shaping them to be leaders in their chosen fields. The college is a pioneer in the rural setting and has been striving to provide quality education to the students. Over a period of seven decades the College has introduced several courses on need basis. The Management is well aware that in the era of globalization, traditional education system is losing its relevance and everything has been changing rapidly and continuously.

The student of today requires more skills to work with the very fast developing technology. The educational institutions in our country should produce graduates to cope with technological development. As UGC has been exhorting, it is mandatory to shift from traditional education system to Outcome Based Education (OBE), which includes Program Outcomes (PO), Program Specific Outcomes (PSO), and Course Outcomes (CO). In consonance with this requirement our college has come forward to organise a **National Level Workshop on Outcome Based Education (OBE) – Possibilities and Challenges** on 22nd November 2019. I convey my best wishes to the organisers and to the participants.

K. S. APPA RAO
SECRETARY & CORRESPONDENT

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Dr. S. Sankar, M.A., M.Phil., Ph.D.   9440860444
Advisor   anrcadvisor@gmail.com

MESSAGE

The University Grants Commission (UGC), the National Assessment and Accreditation Council (NAAC) have been laying emphasis on fostering quality in Higher Education. The UGC feels that a student entering a programme should be in a position to know the main objectives or the learning outcomes of the programme.

It is the responsibility of the institutions of higher education to take up the exercise of preparing programme outcomes for all the programmes offered by them and place them on their web. The UGC has come up with programme outcomes for some of the programmes offered in higher educational instititutions at the national level. It is expected that the colleges and the universities would use these models for guidance and prepare course outcomes, programme outcomes and programme specific outcomes for all the programmes offered by them.

The objectives of the Outcomes Based Education (OBE) is to help the students know in clear terms what programmeme and course learning outcomes are expected to be demonstrated by the holder of a degree / qualification. OBE would also enable students, parents, employers and others to understand the nature and level of learning outcomes. The ultimate aim of this exercise is to make students capable of demonstrating the outcomes for each course on the one hand and prepare them for further study, employment, and citizenship roles. It is with this objective that A.N.R. College has taken up the task of organising a One-Day National Level Workshop on Outcomes Based Education. I wish the organisers success in their endeavour.

Dr. S. Sankar
ADVISOR

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U. Surya Kumar
  Principal

MESSAGE

The University Grants Commission (UGC) is the apex body of the Indian Higher Education system. It has been encouraging educational institutions to train graduates to deal with the changes in the 21st Century. UGC believes that initiatives are required for restructuring the present educational scenario to an outcome-oriented higher education system. It has come up with a curriculum reform based on a Learning Outcomes-based Curriculum Framework (LOCF). To meet the changing requirements, it is mandatory for academic institutions to shift from traditional education system to Outcome Based Education (OBE), with clearly defined sets of Program Outcomes (PO), Program Specific Outcomes (PSO), and Course Outcomes (CO).

It is in this context that A.N.R. College is organising a National Level Workshop on **Outcome Based Education (OBE) - Possibilities and Challenges** (Under Assistance of UGC Autonomous Grant) on 22nd November. I believe that the workshop will enable the stakeholders to understand the nature and level of learning outcomes. Further it may provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and also for periodic review of programmes and academic standards.

U. Surya Kumar
PRINCIPAL

NATIONAL LEVEL WORKSHOP on

OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES

Background Note

Dr. S. Sankar,
Advisor,
A.N.R. College.

There have been many calls for change in higher education. University Grants Commission's *Learning Outcomes-based Curriculum Framework* (LOCF) is said to be associated with Bloom's Taxonomy (https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/) created in 1956 and modified in 2001 by Lorin Anderson and David Krathwohl.

In the original version of the taxonomy, the cognitive (rational) domain is broken into the following six levels of objectives:

1. Knowledge (of specifics)
2. Comprehension (understanding of facts)
3. Application (using acquired knowledge)
4. Analysis (involves examining and breaking information)
5. Synthesis (putting parts together to form a whole)
6. Evaluation (making judgments about information)

In the 2001 revised edition of Bloom's taxonomy, the levels are slightly different:

Knowledge (of specifics):
1. Remember
2. Understand
3. Apply
4. Analyze
5. Evaluate
6. Create (rather than Synthesize)

The UGC in its note, https://www.ugc.ac.in/pdfnews/_4598476_LOCF-UG.pdf pointed out that:

> *"The fundamental premise underlying the learning outcomes-based approach to curriculum planning and development is that higher education qualifications such as a Bachelor's Degree programmes are awarded on the basis of demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes and values) and academic standards expected*

> *of graduates of a programme of study. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study."*

Outcome-Based Education aims at clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for students to be able to do, then organizing curriculum, instruction, and assessment to make sure this learning ultimately happens.

A few questions with and answers relating to OBE are given below:

1. How does "outcome-based education" work?

Outcome-Based Education (OBE) works by giving a clear picture of what is important for students to be able to do. In OBE, <u>curriculum</u>, <u>instruction</u>, and <u>assessment</u> are organized in such a manner to make sure this learning ultimately happens. There is no single specified style of teaching or assessment in OBE; instead, classes, opportunities, and assessments should all help students achieve the specified outcomes.

In OBE the role of the faculty adjusts into instructor, trainer, facilitator, and/or mentor based on the outcomes targeted. In OBE a clear set of learning outcomes viz. COs, POs, PEOs are developed, around which all of the system's components can be focused. The conditions and opportunities within the system are established to encourage all students to achieve those essential outcomes.

Program Outcomes (POs) are statements about the knowledge, skills and attitudes (qualities) the graduate of a formal education program should have.

The Course Outcomes (Cos) are stated in such a way that they can be actually measured. COs are set by the institution, in consultation with the department heads, faculty, students and other stakeholders.

Program Educational Objectives (PEO) are statements that describe the career and professional accomplishments that the program is preparing the graduates to achieve. PEO's may be measured after graduation.

2. What exactly are outcomes?

Outcomes are clear learning results that we want students to demonstrate at the end of significant learning experiences.

When defining and developing outcomes, educators must use observable action verbs like describe, explain, design, or produce rather than vague or hidden non-demonstration processes like know, understand, believe, and think.

To recognizing a well-defined outcome, look for the example verb or verbs that define which processes the learner is expected to carry out at the end. Because outcomes occur at or after the end of a learning experience, it is useful to think of them as the ultimate result required from the learning.

3. Who should have a voice in determining outcomes?

In the advanced models of exit outcome design, the academic community and its stakeholders should carry out the responsibility.

4. What does it mean to base education on outcomes?

A system based on outcomes gives top priority to ends, purposes, learning, accomplishments, and results.

5. How is OBE different from the existing models?

In OBE, standards are clearly defined, known, and "criterion-based" for all students. All students can work to reach and receive full credit for achieving any performance standard in the system. In the traditional system, Time defines most system features; it is an inflexible constraint (limitation) for teachers and students. The schedule and the calendar control student learning and success. Outcome-based systems focus on increasing students' awareness, learning and ultimate performance abilities to the highest possible levels before they leave educational institution.

6. What are OBE's purposes?

   a. Ensuring that all students are equipped with the knowledge, competence and qualities needed to be successful after they exit the educational system.

   b. Structuring and operating educational institutions so that those outcomes can be achieved and maximized for all students.

7. What are OBE's assumptions?

   a. All students can learn and succeed, but not on the same day or in the same way.

   b. Successful learning promotes even more successful learning.

   c. Educational institutions control the conditions that directly affect successful learning

8. What does UGC Say?

UGC says, initiatives are required for outcome-oriented higher education and enhancing employability of graduates through curriculum reform, based on a Learning Outcomes-based Curriculum Framework (LOCF).

National Level Workshop on OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES (Under Assistance of UGC Autonomous Grant), 22nd November 2019, Akkineni Nageswara Rao College, (with Post-Graduate Courses), Gudivada-521301, Krishna Dt., A.P., India. -- Background.

Through this Workshop we wish to bring **graduate and post-graduate faculty** together to share their experiences about the issues significant to understanding and implementing Outcome Based Education.

- ➢ The participants of this Workshop will discuss matters related to the meaning of the term "outcome-based education" with reference to the subject they have been dealing with.

- ➢ They will also analyse the key terms and concepts related to OBE and the outcome-based approaches that they have been following in their institutions and the results that they have seen.

- ➢ They will look at the socio-economic changes at the regional, national and global level to formulate the OBE teaching models / methodologies accordingly.

- ➢ Any trends followed or changes made in classroom interaction, program alignment, external accountability, and system / syllabus transformation will also be touched upon in the workshop.

- ➢ The challenges in implementation of OBE and any viable directions formulated for future will also be highlighted.

The sub-groups may interact on the different aspects of the Outcome Based Education subject wise. It is hoped that the workshop will enable the stakeholders to understand the nature and level of learning outcomes and provides higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and also for periodic review of programmes and academic standards.

To conclude:

Outcomes are more like signboards and roadmaps. They help the learners reach where they're supposed to reach, and contribute to progress. When outcomes have been established, educators will be able to design curriculum to give students the knowledge and skills they need to demonstrate the outcomes. In some cases the outcomes may be such that they can be assessed only with performance assessment, not conventional tests. So, education focused on rote learning and scorecards are to be changed to OBE.

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B.SC. DEGREE IN CHEMISTRY

Program Outcomes, Program Specific Outcomes and Course Outcomes

The learning outcomes-based curriculum framework for a B.Sc. degree in Chemistry is intended to provide a broad framework within which chemistry programmes that respond to the needs of students and to the evolving nature of chemistry as a subject could be developed.

The framework is expected to assist in the maintenance of the standard of chemistry degrees/programmes across the country and periodic programme review within a broad framework of agreed expected graduate attributes, qualification descriptors, programme learning outcomes and course-level learning outcomes.

The framework, however, does not seek to bring about uniformity in syllabi for a programme of study in chemistry, or in teaching-learning process and learning assessment procedures. Instead, the framework is intended to allow for flexibility and innovation in programme design and syllabi development, teaching-learning process, assessment of student learning levels.

Chemistry is normally referred to as the science that studies systematically the composition, properties, and reactivity of matter at the atomic and molecular level. The scope of chemistry as a subject is very broad. The key areas of study within the disciplinary/subject area of chemistry comprise: organic chemistry, inorganic chemistry, physical chemistry and analytical chemistry.

The overall aims of bachelor's degree programme in chemistry are to:

- Provide students with learning experiences.
- Help instill deep interests in learning chemistry.
- Develop broad and balanced knowledge and understanding.
- Introduce key chemical concepts, principles, and theories related to chemistry.
- Equip students with appropriate tools of analysis.
- Enable them to tackle issues and problems in the field of chemistry.

The program outcomes and program specific outcomes are measured by conducting class tests after the completion of each unit, and by conducting 2 or more Internal Assessment exams in a semester. The attainment of students is also measured by keeping surprise test and asking spontaneous questions during the lecture.

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Department of Chemistry UG Programme Outcomes

B. Sc – Chemistry Semester – I - Paper Code-18CHE1 – Paper – I
INORGANIC CHEMISTRY & ORGANIC CHEMISTRY

At the end of the Semester the student is able to:
- Define p-block elements – I – 13, 14, 15, 16, 17 Groups – preparations and application Chemical properties.
- Describe organo-metallic Chemistry - nomenclature, preparation, properties and applications of alkyls of Li and Mg.
- Explain structural theory in Organic Chemistry.
- Compute acyclic Hydrocarbons.
- Analyze benzene and its reactivity.

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B. Sc. Chemistry Semester – II – Paper Code – 18CHE2 – Paper – II
PHYSICAL & GENERAL CHEMISTRY

At the end of the Semester the student is able to:
- Explain solid state - Symmetry - The law of rationality of indices.
- Describe gaseous state - Compression factors - Law of corresponding states.
- Show Structural differences between solids, liquids and gases. - Application of liquid crystals as LCD devices.
- Define Solutions.
- Analyze surface chemistry.
- Interpret chemical Bonding.
- Outline stereochemistry of carbon compounds.

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B. Sc. Chemistry – Semester – III Paper Code – 18CHE3 – Paper III
INORGANIC & ORGANIC   CHEMISTRY

At the end of the Semester the student is able to:
- Define D- Block Elements Characteristics
- Employ theories of bonding in metals:
- Outline metal carbonyls Chemistry of f-block elements,
- Summarize Halogen Compounds Hydroxyl compounds
- Explain carbonyl Compounds
- Compute nomenclature and classification of Chemical Properties
- Evaluate Carboxylic acids and derivatives Preparations and Chemical

Properties
- State Active Methylene Compounds
- Analyze Acetoacetic ester
- Illustrate Malonic ester
- Interpret Synthetic applications

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B. Sc Chemistry - Semester IV – Paper code - 18CHE4, Paper IV
SPECTROSCOPY & PHYSICAL CHEMISTRY

At the end of the Semester the student is able to:
- Describe Spectroscopy
- Compute Beer-Lambert's law, Application of Beer-Lambert law
- State Electronic spectroscopy
- Define Infra red spectroscopy
- Explain Proton magnetic resonance spectroscopy (H^1-NMR)
- Outline Physical chemistry
- Evaluate Dilute solutions
- Summarize Electrochemistry-I
- Analyze Electrochemistry-II
- Formulate Phase rule
- Apply Laboratory course

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SEMESTER-V
B. Sc Chemistry – Semester V – Paper Code – 5003CHE15A - Paper - V
INORGANIC & ORGANIC PHYSICAL CHEMISTRY-1

At the end of the Semester the student is able to:
- Define Coordination Chemistry
- Explain Spectral and magnetic properties of metal complexes
- Compute Stability of metal complexes
- Employ Organic chemistry
- Outline Nitro hydrocarbons
- Demonstrate Nitrogen compounds
- Describe Physical chemistry
- Assess Thermodynamics

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SEMESTER-V
B. Sc Chemistry – Semester – V Paper Code – 5003CHE15B
INORGANIC, ORGANIC & PHYSICAL CHEMISTRY-II

At the end of the Semester the student is able to:
➢ Compute Reactivity of metal complexes
➢ Define Bioinorganic chemistry
➢ Outline Physical chemistry
➢ Explain Chemical kinetics
➢ Describe Photochemistry
➢ Evaluate Organic chemistry
➢ Summarize Heterocyclic Compounds
➢ State Carbohydrates
➢ Interpret Amino acids and proteins

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SEMESTER-VI - Electives
B. Sc Chemistry - Semester VI Paper Code – 6003CHE15A Elective Paper – VII-(A)
ANALYTICAL METHODS IN CHEMISTRY

At the end of the Semester the student is able to:
➢ Describe errors in Quantitative analysis, significant figures separation techniques in chemical analysis.
➢ Categorize solvent extraction.
➢ Define ion exchange.
➢ Explain Chromatography.
➢ State Thin layer Chromatography (TLC).
➢ Outline HPLC.

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Cluster Elective – III
B. Sc Chemistry – Semester – VI – Paper Code – 6003CHE15A1 - PAPER – VIII-C-1: ORGANIC SPECTROSCOPIC TECHNIQUES

At the end of the Semester the student is able to:
➢ Define Nuclear magnetic resonance spectroscopy
➢ Describe UV & visible spectroscopy
➢ Compute Electronic spectra of polyatomic molecules. Electron Spin Resonance Spectroscopy

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Cluster – II

B. Sc Chemistry – Semester VI – Paper Code – 6003CHE15A2 Paper – VIII-C-2 <u>ADVANCED ORGANIC REACTIONS</u>

At the end of the Semester the student is able to:

- ➤ Explain Organic photochemistry
- ➤ State Photochemical reactions
- ➤ Compute Photo reduction, mechanism,
- ➤ Define Organic photochemistry
- ➤ Describe Protecting groups and organic reactions
- ➤ Evaluate Synthetic reactions
- ➤ Outline New synthetic reactions

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Cluster – III

B. Sc - Chemistry – Semester - VI Paper Code - 6003CHE15AP - PAPER – VIII-C-3 <u>PHARMACEUTICAL AND MEDICINAL CHEMISTRY</u>

At the end of the Semester the student is able to:

- ➤ Define Pharmaceutical chemistry Terminology
- ➤ Explain Drugs
- ➤ Give examples Nomenclature: Chemical name, Generic name
- ➤ Describe Synthesis and therapeutic activity of the compounds
- ➤ Speak about Chemotheraputic Drugs
- ➤ State the action of Sulphadrugs (Sulphamethoxazole) – Antibiotics - Anti pyretics (Paracetamol), Hypnotics, Tranquilizers(Diazepam), Levodopa
- ➤ Expalin Pharmacodynamic Drugs - Antiasthma Drugs
- ➤ Define HIV-AIDS.

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Practicals
B. Sc. Chemistry – Semester - 1 – Practical - Paper Code – 18CHE1P – Paper - 1

After the completion of the practicals a student is able to:

> ➢ Summarize simple Salt Analysis.

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B. Sc. Chemistry Semester – II – Practical Paper Code – 18CHE2P – Paper 2

After the completion of the practicals a student is able to:

> ➢ Identify Mixture Salt Analysis

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B. Sc. Chemistry Laboratory Course– III, Paper Code 18CHE3P - Paper-III
TITRIMETRIC ANALYSIS AND ORGANIC FUNCTIONAL GROUP REACTIONS

After the completion of the practical a student is able to:

> ➢ Define Titrimetric analysis.

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B. Sc. Chemistry Practical - Paper Code – 18CHE4P Paper - IV
PHYSICAL CHEMISTRY AND IR SPECTRAL ANALYSIS

After the completion of the practicals a student is able to:

> ➢ Estimate HCL, CH3COOH Using NaOH.
> ➢ Identify IR Spectral Analysis.

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LABORATORY COURSE – V
B.Sc. Chemistry – Semester – V Paper Code 5003CHE15AP – Paper- V
ORGANIC CHEMISTRY (AT THE END OF SEMESTER V)

After the completion of the practicals a student is able to:
> ➢ Complete Organic Compound Analysis

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LABORATORY COURSE – VI
B. Sc Chemistry – Semester – V Paper Code – 500CHE15 BP – Paper – VI
<u>PRACTICAL PAPER – VI PHYSICAL CHEMISTRY</u>

After the completion of the practicals a student is able to:

➢ Estimate Compounds as part of Physical Chemistry

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B. Sc Chemistry – Semester – VI Paper Code – 6003CHE15AP Practical Paper – VII-(A)
<u>LABORATORY COURSE – VI</u>

After the completion of the practicals a student is able to:
➢ Estimate Complexo Metric titritation
➢ Analyse Choromotography

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LABORATORY COURSE (At the end of the semester)
B. Sc. Chemistry - Semester VI – Paper Code - 6003CHE15A1P – Practical Paper VIIIB2

After the completion of the practical a student is able to:

➢ Prepare Green Synthesis

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LABORATORY COURSE – VIII
B. Sc Chemistry – Semester VI Paper Code – 6003CHE15A2P Practical Paper – VIII-B-1:
<u>(At the end of semester VI)</u>

At the end of the Semester the student is able to:

➢   Prepare Organic compounds.

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B. Sc Chemistry - Semester VI Paper Code 6003CHE15A3P
<u>Project Work / Intern Ship</u>

After the completion of the project work the student is able to:
➢ Perform several types of analyses.

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Student Learning Outcomes B.A. in Economics

The Learning Outcomes-based Curriculum Framework (LOCF) for the program in Economics is intended to provide a broad framework to create an academic base that responds to the need of the students to understand the basics of Economics and its ever evolving nature of applications. The qualification descriptors for a B.A. Degree in Economics Program include the following:

The student of B.A. Economics would be able to:

➢ Demonstrate core micro-economic terms, concepts, and theories.

➢ Differentiate between positive and normative statements.

➢ Analyze data to solve complex economic problems.

➢ Explain general economic concepts (supply & demand, comparative advantage, opportunity cost, etc.).

➢ Understand concepts like elasticity, monopoly, price discrimination, etc.

➢ Students will understand and demonstrate core macro-economic terms, concepts, and theories like GDP, unemployment, aggregate demand/supply, etc.

Graduates of B.A. Economics will be able to:

➢ Apply economic theories and describe how economic trade-offs and social values impact public/private policy.

➢ Explain the function of markets and prices as allocative mechanisms.

➢ Clarify how fiscal and monetary policies can be used to promote equity.

➢ Identify key macroeconomics indicators, and measures of economic change, growth, and development.

➢ Identify and explain the key concepts underlying comparative advantage and market failure.

Graduates in Economics will have well developed critical thinking skills to:

➢ Identify appropriate tools to make an economic evaluation.

➢ Assess an economic situation using appropriate analytical tools to arrive at defendable choices.

➢ Identify alternative solutions to problems.

➢ Demonstrate ability to analyze an economic situation involving an issue of social responsibility, and defend or critique a course of action.

➢ Use economic theory to analyze situations and alternative courses of action.

➢ Identify the sources of comparative advantage for a country in its external and internal environment, and formulate or critique a countries strategy.

➢ Formulate and defend a monetary or fiscal strategy that would produce desired outcomes.

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Department of Economics UG - Programme Outcomes

I Year B. A. Programme – Under CBCS Semester – I - Paper – I (Core Paper)
MICRO ECONOMICS – CONSUMER BEHAVIOR

Students undergoing this course will be able to:

- ➤ Define nature, definitions and scope of Economics.
- ➤ Describe methodologies in Economics
- ➤ Analyze partial and general Equilibrium.
- ➤ Explain Cardinal and Ordinal utility approach.
- ➤ Summarize Demand analysis.

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I Year B. A. Programme – Under CBCS Semester – II - Paper – II (Core Paper)
MICRO ECONOMICS - PRODUCTION AND PRICE THEORY

At the end of the Semester, the student is able to:

- ➤ Explain production theory.
- ➤ Define concepts of Costs and Revenue.
- ➤ Describe different types of Market structure.
- ➤ Illustrate price determination.
- ➤ Evaluate equilibrium of firm and industry.
- ➤ Compute imperfect competition - Price determination.
- ➤ Outline Marginal Productivity theory of distribution.

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II Year B. A. Programme – Under CBCS Semester – III - Paper – III (Core Paper)
MACRO ECONOMICS - NATIONAL INCOME, EMPLOYMENT AND MONEY

At the end of the Semester, the student will be able to:

- ➤ Define Macro Economics.
- ➤ Explain differences between Micro and Macro Economics.
- ➤ Describe National Income.
- ➤ Analyze Circular flow of Income.
- ➤ Categorize theories of Employment.
- ➤ Outline Consumption and Investment functions.

- ➢ Summarize Marginal Efficiency of Capital (MEC).
- ➢ Employ Multiplier and Accelerator.
- ➢ Critique Money Functions.

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II Year B. A. Programme – Under CBCS Semester – IV - Paper – IV (Core Paper)
BANKING AND INTERNATIONAL TRADE

At the end of the Semester, the student will be able to:
- ➢ Describe Trade Cycles.
- ➢ Explain Inflation.
- ➢ Evaluate Commercial Banks.
- ➢ Define RBI.
- ➢ Outline recent developments in banking.
- ➢ Interpret Non-Bank Financial Institutions.
- ➢ Express Money market.
- ➢ Categorize Shares, debentures, Stock Market - SEBI.
- ➢ Interpret Insurance.
- ➢ Outline Banking - Economic Policies.
- ➢ Define Exchange rate.
- ➢ Evaluate National and International Trade.
- ➢ Give details Balance of Trade.

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III Year B. A. Programme – Under CBCS Semester – V - Paper – V (Core Paper)
CONTEMPORARY INDIAN ECONOMY

At the end of the Semester, the student will be able to:
- ➢ Explain India as a developing economy.
- ➢ Analyze Demographic features of India and Andhra Pradesh.
- ➢ Describe Trends in urbanization.
- ➢ State Trends of the India's national income.
- ➢ Define Poverty in India and Andhra Pradesh.
- ➢ Describe Occupational structure.
- ➢ Explain Unemployment and its dimensions.
- ➢ Show Planning in India - NITI Ayog.
- ➢ Summarize Major schemes of rural and urban - reference to Andhra Pradesh.
- ➢ Describe Balanced Regional Development.

- ➢ Evaluate Land use and cropping pattern in India and A.P.
- ➢ Demonstrate Land Ceiling Act and its implementation in India & AP.
- ➢ Summarize Green revolution.
- ➢ Illustrate Watershed development, Drip irrigation, Organic farming.
- ➢ Outline Agricultural price policy and minimum support prices.
- ➢ State the concepts of food security – Micro-finance - Agricultural Insurance.
- ➢ Describe Industrial Policies, Industrial corridors and SEZs.
- ➢ Explain Sarva Shiksha Abhiyan - Skill Development Mission.
- ➢ Analyze Social security schemes – women empowerment – DWACRA.
- ➢ Define Tourism.
- ➢ Present Andhra Pradesh Economy – Solar Contribution.
- ➢ Interpret IT – small scale industry.
- ➢ Evaluate Health and Education.

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III Year B. A. Programme – Under CBCS Semester – V - Paper – VI (Core Paper)

PUBLIC FINANCE

At the end of the Semester, the student is able to:

- ➢ Explain Public Finance and private finance.
- ➢ Compute Principles of maximum social advantage.
- ➢ Describe Public Revenue - commercial revenue.
- ➢ Define Taxation.
- ➢ Develop Public Expenditure.
- ➢ Evaluate Public Debt.
- ➢ Employ Budget state and union.

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III Year B. A. Programme – Under CBCS Semester – V - Paper – VI (Core Paper)

Paper – VII-(A) (Elective Paper VII-(A)

AGRICUTURAL ECONOMICS

At the end of the Semester, the student is able to:

- ➢ Define Agricultural Economics - Factors affecting agricultural development.
- ➢ Outline Interdependence between agriculture and industry.
- ➢ Compute Concept of production function - Input-output and product relationship in farm production.

- ➢ Analyze Indian agriculture - special reference to Andhra Pradesh - Agrarian reforms
- ➢ Describe Green revolution.
- ➢ Appraise Policy controls with specific reference to agro-industries.

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Department of English

PO (Program Outcomes) and CO (Course Outcomes)

Program Outcomes:

For every degree program, expectations are listed out by the institution under the Program Outcomes. This enables the students and stakeholders to identify and analyze complex problems. They also learn to design solutions for problems that meet the specified needs with appropriate consideration for the cultural, societal and environmental well being. They learn to use research based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

Course Outcomes:

The course outcomes help the students to manage the resources effectively to the maximum extent. This creates path to improve the processes continually.

The Course and Program outcomes in English may be summarized through the following key attributes: understanding, use, communication, expansion, and application of subject knowledge.

    (i)   The teaching of English as a subject.

    (ii) Imparting subject knowledge.

    (iii) Life skills.

    (iv) Awareness of human values.

    (v) Translation of skills into demonstrable outcomes in communication. social engagement, personal growth and ability enhancement.

    (vi) Application and use of English also through digital knowledge platforms.

    (vii) Ability to recognize the professional and social utility of the subject.

The specific objectives of the General English study helps to develop in the student the ability to demonstrate the following outcomes:

1. Disciplinary Knowledge of English Literature and Literary Studies.
2. Communication Skills.
3. Critical Thinking.
4. Analytical Reasoning.
5. Problem Solving.
6. Research-Related Skills.
7. Self-Directing Learning.
8. Multicultural Competence.
9. Values: Moral and Ethical, Literary and Human.
10. Digital Literacy.

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Department of English UG - Program Outcomes
General English

After the completion of this course a student will be able to:

➢ Attempt questions on comprehension – write paragraph, short note, and single sentence answers on the lessons covered.

➢ Attempt questions on vocabulary, syntax, and pronunciation.

➢ Deal with language exercises including paraphrasing, note-making and report writing.

➢ Grasp what pre-reading and post-reading activities.

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I Year - Semester – I - Paper – I – Code 18ENG1 (Core Paper)
GENERAL ENGLISH – I

After the completion of this course a student will be able to:

➢ Grasp the thought process of people from India & Africa like A.P. J. Abdul Kalam Ngugi WaThiong'o.

➢ Appreciate the profound ideas presented in simple language as in the poems of Robert Frost & Nissim Ezekiel.

➢ Be engrossed in the depiction of the changing vicissitudes of a child as presented by Mulk Raj Anand or in noting the Henry Lawson's narrative of aboriginal life.

➢ Enjoy the dramaturgy of William Shakespeare and the knowledgeable presentation of court room intricacies presented.

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I Year - Semester – II - Paper – II - Code 18ENG2 (Core Paper)
GENERAL ENGLISH – II

After the completion of this Semester a student will be able to:

➢ Distinguish between science and emotional outlook according to J.B.S. Haldane.

➢ Have a critical view on western practice of shaking hands.

- ➢ Appreciate the use of sensuous imagery in poetry as in the Ode to Autumn by John Keats.
- ➢ Understand the Gender bias in Pakistan.
- ➢ Explore how easily and quickly rumors can spread through community.
- ➢ Recognize how greed for money loses lives.
- ➢ Understand Chekhov's concerns with social issues and human nature.
- ➢ Able to transform the sentences.
- ➢ Present written and oral communication.

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II Year - Semester – III - Paper – III - Code - 18ENG3 - (Core Paper)
GENERAL ENGLISH – III

By the end of the course a student will be able to:

- ➢ Recognize how even great men struggled to improve public speaking skills.
- ➢ Identify the technology in the modern world.
- ➢ Grasp how artificial politeness is replacing genuineness and warmth.
- ➢ Support and maintain legacies left behind by older generations.
- ➢ Discriminate between cultural and personal differences.
- ➢ Relate to the changes in outlook of a mother and daughter.
- ➢ Grasp effects of child marriage - plight of dancing girls - practice of bride price as presented by Gurajada.
- ➢ Develop writing skills and language activity.

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Communication and Soft Skills

I Year – Communication and Soft Skills - I - Semester – II - Paper Code - 18CS12
COMMUNICATION AND SOFT SKILLS - I

At the end of the course a student will be able to:

- ➢ Know the different aspects of vocabulary.
- ➢ Use LSRW skills.

➢ Make use of Articles and Prepositions.

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II Year – Communication and Soft Skills - II - Semester – III – Paper Code – 18CS23
COMMUNICATION AND SOFT SKILLS - II

By the end of the course a student will be able to:

➢ Improve his/her speaking skills.

➢ Learn accurate pronunciation or word accent.

➢ Use appropriate intonation.

➢ Improve his/her interview and Presentation Skills

➢ Grasp the rules of Spelling and punctuation.

➢ Transfer Information into pictorial modes.

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II Year – Communication and Soft Skills - III - Semester – IV – Paper Code – 18CS34
COMMUNICATION AND SOFT SKILLS – III

At the end of this course a student will be able to:

➢ Develop the Soft Skills needed in the global job market.

➢ Improve academic / formal writing through Letter Writing and E-correspondence.

➢ Prepare Resume and CV.

➢ Communicate effectively and appropriately in real life situations.

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DEPARTMENT OF HINDI UG - PROGRAMME OUTCOMES
हिन्दी विभाग - स्नातक परिणाम कार्यक्रम

डा. के.जानकी देवी
प्राध्यापिका
ए.एन.आर कालेज, गुडिवाडा

इस कोर्स पूरा होने के बाद सभी छात्र ऐसा कर पाएंगे।

1 Year UG Programme - Under CBCS Semester - I

SEM - I

1. ''साहित्य की सर्वांर्गींण'' महत्ता पर डा. महावीर प्रसाद द्विवेदी जी चर्चा करते है। श्रेष्ट साहित्य की विशेषता और कमजोरियों का विश्लेषण करने की योग्यता।

2. उदात्त आदर्श का पालन करने वाला व्यक्ति सच्चा वीर पुरूष हैं इस विषय को समझने की योग्यता।

3. आचार्य रामचंन्द्रशक्ल जी इस निबंध में साहित्य के साथ-साथ मित्रता जीवन को प्रभावित करते हैं। इस विषय को जानने समझने की योग्यता ।

4. मानवीय मूल्यों के प्रति मानव व्यवहार की उदारता को समझने की योग्यता।

5. धार्मिक साहित्य को जानने की योग्यता ।

6. मानवीय चरित्रों की अवतारणा तथा उनमें सहज व्यक्तित्व की प्रतिष्ठा का सुन्दरतम उदाहरण है इस कहानी। इस विषय को समझने की योग्यता।

7. हिन्दी साहित्य और व्याकरण के अध्ययन के माध्यम से विद्यार्थी में स्वाध्याय करने की और समझने की योग्यता।

SEM - II

1. हिन्दी साहित्य के अध्ययन के द्वारा संस्कृति, साहित्य, और समाज का परस्पर संबंध और एक दूसरे के पूरक। इस विषय को समझने की योग्यता।

2. साहित्य में ऐतिहासिक, सांस्कृतिक एंव राष्ट्रीय चेतना को समझने की और बहुसांस्कृतिकता को आत्मसात करने की योग्यता।

3. नैतिक मूल्य के प्रति जागरूकता और उनेक प्रचार प्रसार के लिए रूचि उत्पन्न होने की योग्यता।

4. समाज में व्याप्त स्वार्थ प्रकृति तथा अपनी पहचान के लिए तडपती नारी का चित्रण चित्रा मुद्गल ने वर्णन किया है। इस विषय को समझने की योग्यता।

5. वर्तमान समाज के प्रति संवेदनशील दृष्टी का विकास करने की योग्यता।

6. साहित्य के माध्यम से वर्तमान समाज में फैले भ्रष्टाचारों को जानने की याग्यता।

7. हिन्दी साहित्य और व्याकरण के अध्ययन के माध्यम से विद्यार्थी में मूल भूत कौशल का विकास करने की योग्यता।

SEM - III

1. साहित्य के विभिन्न रूपों, बिधाओं, कालखंडों और आंदोलनों की पहचान करना, उनके बारे में चर्चा करना तथा आलेख लिखने की योग्यता।

2. पद्यों को गंभीरता पूर्वक पढ़ने की योग्यता।

3. भाषा संबंधी कौशल का विकास करने की योग्यता।

4. उच्चारण, वर्तनी और लिपि का सही-सही ज्ञान कराने की योग्यता।

5. समाज और समुदाय के प्रति संवेदनशील दृष्टी का विकास करने की योग्यता।

6. योग और आध्यात्म का प्रशिक्षण ताकि विद्यार्थी का शारीरक और मानसिक विकास करने की योग्यता।

7. साहित्य के विभिन्न कालखंड़ों को समझने की योग्यता तथा संक्रमण काल के मध्य की स्थितियों को समझने की योग्यता।

8. सामाजिक, धार्मिक, क्षेत्रीय, लैंगिक, राजनैतिक और आर्थिक संदर्भो में साहित्य को जानने की योग्यता।

9. अनुवाद के माध्यम से पारस्परिक संबंधों को खोज करने योग्यता।

10. शोध-पत्र हेतु योजना बनाना और शोध-पत्र लिखने की योग्यता।

11. व्यक्तिगत शोध के साथ-साथ प्रश्न निर्माण और उत्तर देने की योग्यता का विकास।

12. सूचना (Notice) परिपत्र (Circular Letter) एवं तकनीकी कौशल से परिचय करने की

Department of History UG Programme Outcomes

1. Student Understand the Importance of our Glorious Past.

2. They Understand the Meaning of Nationalism and they Respect toward Great National Personality.

3. They understand Nature & Scope of History.

4. They Understand World history and its impact on India.

5. Students will understand how history is studied and written by analyzing inter-related political, social, economic and cultural process.

6. Students will be able to apply techniques and methods like analytical operation for identifying the primary and secondary sources.

7. Students will also get exposure to research methodology and presentation.

8. Students will be able to analyse and evaluate historical information from multiple sources.

9. Students will develop critical thinking and understand how historians have interpreted it.

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.**Department of History UG – Programme & Course Outcomes**

I B.A – History - Semester – I – Core Paper – I – Paper Code - 18HIS - 1

ANCIENT INDIAN HISTORY AND CULTURE FROM THE EARLIEST TIMES TO 600 AD

Students undergoing this course will be able to:

1. Know the importance of Sources of History.

2. Take interest to read historical maps, biographies, and novels related to Ancient period.

3. Visit Museums, Archives historical place and understand ancient India through caves, Temple, Art Architecture.

4. Collect Art, coins, other material related to Ancient History.

6. To make a report of their study tour.

7. Know the pre-Historical period and Indus valley civilization – origin extent and features.

8. Know Buddhism and Jainism - causes and main principles of these two religions and Results

9. Speak about Mauryan dynasty, Genealogy of the Mauryas - the greatness of Ashoka – Kalinga War – its results, Ashoka's contributions to Buddhism and his Dhamma, Mauryas administration – causes for the decline of empire.

10. Comprehend the greatness of Kanishka, Gandhara Art, His Contribution to Buddhism,

11. Communicate about the age of the Satavahanas the greatness of Gauthamiputra Satakarni – His Conquests, Socio Economic and Cultural conditions during the Satavahanas.

12. Give details of Gupta's Empire – genealogy of the Gupta's – Golden Age of the

Gupta's, Socio - Economic and Cultural conditions during the Gupta's Science and Technology during this period – visit of Fahien, Nalanda University decline of the Empire.

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I B.A – History - Semester – II – Core Paper – II – Paper Code - 18HIS - 2
EARLY MEDIEVAL INDIAN HISTORY AND CULTURE FROM 600 AD TO 1526 AD

Students in this semester will be able to understand the:

1. Times of Harsha – his Administration - Religion – Hiuen Tsang and his impressions of Indian Polity, Society, Economy and Culture

2. Reign of the Chalukyas, Pallavas, Cholas – their Rise and their contribution to development and Art & Architecture, Cholas Local Self Government

3. Conditions in India on the eve of Turkish Invasions – Factors leading to the Arab Invasion, Ghazni & Ghori - Delhi Sultanate.

4. Rule of Khiljis – their Administrative & Economic Reforms - The Tughlaqs - Decline & Disintegration

5. Administration, Society, Economy, Technology, Religion, Art under these rulers

6. Cultural Development in India between 13th & 15th Centuries A. D.: Impact of Islam on Indian Society and Culture – Bhakti and Sufi Movements – Emergence of composite culture.

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II B.A – History - Semester – III – Core Paper – III – Paper Code - 18HIS - 3
LATE MEDIEVAL AND COLONIAL HISTORY OF INDIA FROM AD 1526 TO AD 1857

Students in this semester will be able to:

1. Differentiate between Local history, National history.

2. Speak about the genealogy of the Mughal's – Mughal History – Shershah administrations, Maratha History and modern Indian History.

3. Read historical maps, biographies, novels, related to medieval period.

4. Visit historical places like forts, monuments, & watching historical movies with a critical perception.

5. Understand the causes for the 1857 revolt and debate on it, its results, Nature and Scope of the revolt.

6. Talk about European settlements, Anglo French war's (Carnatic Wars), Policies of

Expansion – Treaty of Subsidiary alliance of Lord Wellesley and Doctrine of Lapse of Lord Dalhousie and it's Impacts.

7.   Describe the Land Revenue Settlements of the British - Permanent Land Revenue Settlement, Raitwari Land Revenue Settlement and Mahalvari Land Revenue Settlements, Commercialization of Agriculture, Impact of Industrial revolution on Indian Society and Economy – Decline of Native Industries.

8.   Outline the Spread of Modern Education the role of Lord Macaulay – Downward filtration theory, Sir Charles Woods dispatch.

9.   Give out the causes for the 1857 Revolt and results, Nature and Scope of the revolt.

10.   Proved information relating to Tribal Movements and Peasant Movements.

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II B.A – History - Semester – IV – Core Paper – IV – Paper Code - 18HIS-4

SOCIAL REFORM MOVEMENT AND FREEDOM STRUGGLE FROM AD 1820s TO 1947

Students in this semester will be able to:

1. Give the causes for the Socio, Religious reform movements, and will be able to talk about the contributions made by Social Reformers.

2. Narrate the causes for the rise of the Nationalism and Establishment of Indian National Congress – Safety Valve Theory.

3. Outline Stages of Indian National Congress – Moderates period - Extremists period and Gandhian period and their ideology.

4. Speak about the various Movements like Vandemataram Movement, Home rule Movement, khilafath Movement, Non-co-operation Movement, Simon Commission go back Movement, Dandi Satyagraha Movement (Salt Satyagraha Movement) and Quit India Movement, the role of Indian National (Azad Hind Fauz) – Role of Netaji Subhash Chandra Bose, Partition of India

5. Describe the conditions leading to unification of Princely States - Role of Sardhar Vallabhai Patel, Statue of Unity and Run for Unity

6. Become familiar with makers of Modern India.

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III B.A – History - Semester – V – Core Paper – V – Paper Code - 18HIS - 5A

AGE OF RATIONALISM AND HUMANISM

THE WORLD BETWEEN15th AND 18th CENTURIES

Students in this semester will be able to speak about:

1. The concepts of Feudalism, effect of Geographical Discoveries use of Compass & Maps.

2. The factors for the Growth of Renaissance – Transformation from Medieval to Modern World; Reformation & Counter Reformation Movements - Effects.

3. The emergence of Nation States - Origin of Parliament.

4. Factors leading to Revolutions – The Glorious Revolution – Bill of rights The American Revolution.

5. French Revolution Causes and the consequences – Teachings of Philosophers

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III B.A – History - Semester – V – Core Paper – VI – Paper Code - 18HIS - 5B

HISTORY & CULTURE OF ANDHRA DESA (12th CENTURY TO 19th CENTURY)

Students pursuing the course will be able to know and speak about:

➢ Andhras under Kakatiyas – Vijayanagara Empire - Sri Krishna Devaraya – Qutub Shahis of Golkonda – East India Company's Authority over Andhra – Three Carnatic Wars - Early Uprisings – Peasants and Tribal Revolts - Administration – Social & Economic Life – Industries & Trade and Commerce - Promotion of Literature and Culture – Architecture & Sculpture – Factors leading to their Decline;

➢ Impact of Company Rule on Andhra – Administration – Land Revenue Settlements – Society – Education - Religion – Impact of Industrial Revolution on Economy – Peasantry & Famines – Contribution of Sir Thomas Munroe, C. P. Brown & Sir Arthur Cotton – Impact of 1857 Revolt in Andhra and Nizam state.

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III B.A – History - Semester –VI –Elective – 1 Paper – VII A– Paper Code - 18HIS - 6A

<u>HISTORY OF MODERN EUROPE (FROM 19TH CENTURY TO 1945) (ELECTIVE1)</u>

In the Electives they are 6 Electives namely:

1). Paper VII-A. History of Modern Europe (From 19th century to 1945 AD)

2). Paper VII-B History of East Asia (From 19th century to 1945 AD)

3). Paper VII-C Contemporary History of the world (1945 AD to 2000 AD)

4). Paper VII – D - Basics of journalism

5). Paper VII – E - Historical Application in Tourism

6). Paper VII – F - Modern Techniques in Archaeology

Out of 6 Electives the Department of History has Chosen Paper VII – A -- i.e.

<u>History of Modern Europe</u>

Students will be able to:

1. Comprehend the process of colonialism in different parts of world

2. Visualize the problems of contemporary world in the light of its background history.

3. Speak about the factors behind the necessity of Universal-Brotherhood.

4. Analyze the causes of Industrial Revolution Origin - Nature and Impact

5. Envisage the Impact of Unification of Germany and Italy - role of Bismarck, Garibaldi Mazzini.

6. Talk about Russian Revolution - Impact on the world order.

7. Explain the causes of First World War – Results – League of Nations.

8. Outline the conditions leading to Second World War - Causes and results – United Nations and Organisations.

In the 6th Semester IIIBA there are three Cluster electives namely:

1). Paper - VIII A – 1, Project on Cultural Tourism in Andhra Pradesh

2). Paper – VIII A – 2 Popular Movements in Andhra Desa (AD 1848 to AD 1956)

3). Paper – VIII A – 3 Contemporary History of Andhra Pradesh (AD 1956 to AD 2014)

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PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes)

Program Outcomes of all the programs are identified at the National Level by UGC or a concerned accrediting agency. But before this process, the educational institution inculcates certain qualities among the students.

Course Outcomes:

The course outcomes help the students to manage the resources effectively to the maximum extent. This creates path to improve the processes continually.

Program Outcomes:

➢ Human Values and Ethics define the quality of a person or an Organisation or society at large.
➢ Practitioners of values and ethics learn these lessons through self-initiated endeavours, through the life experience that is the greatest laboratory of learning, and through the educational institutions, those they attend.
➢ Hence, the educational institutions themselves need to be values and ethics personified.
➢ It is needless to emphasize that education is the most important pillar of a civilized and dignified society.

Course Outcomes:

The first and foremost outcome of this endeavour is to create institutions with the atmosphere of values and ethics. Each of the physical infrastructure, psychological infrastructure, knowledge infrastructure and financial infrastructure needs to be glowing with values and ethical practices. It is crucial to have the big things at place but it is also important to have the smallest things at the place. To create such an environment, following five systems need to be created:

(1) The learning process for holistic development

(2) Impeccable governance

(3) Effective institutional management

(4) Well laid system of rewards and chastisement

(5) Institutional climate where 'rights' enjoy and 'wrongs' are discouraged.

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Human Values & Professional Ethics
UG - Programme Outcomes

I Year Semester – I - Paper – I (Core Paper)

ఒక విద్యార్థి 'మానవ విలువలు-వృత్తి ధర్మాలు' అనే మొదటి సెమిస్టర్ కోర్స్ ని చదవటం వల్ల :

❖ ఒక మానవ సమాజంలో మనిషికి ఉండాల్సిన ప్రాథమిక విలువలు

❖ విలువలతో కూడిన విద్య ప్రాముఖ్యత,ఆవశ్యకత

❖ వ్యక్తి నైతిక విలువలు,ధర్మాలు

❖ కుటుంబ విలువలు,బంధాలు,బాధ్యతలు

❖ సామాజిక విలువలు,విధులు

❖ ప్రకృతి సమతుల్యత పట్ల బాధ్యత

❖ వృత్తి విలువల్లో ఎదురయ్యే సంఘర్షణలు అనే విషయాలు తెలుస్తాయి.

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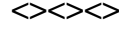
I Year Semester – I - Paper – I (Core Paper)
(మానవ విలువలు-వృత్తి ధర్మాలు)

ఒక విద్యార్థి 'మానవ విలువలు-వృత్తి ధర్మాలు' అనే మొదటి సెమిస్టర్ కోర్స్ ని చదవటం వల్ల :

➤ విలువలవిద్య, నైపుణ్యాభివృద్ధి, మార్గదర్శకాలు, బుద్ధి వికాసం, అంతఃకరణ శుద్ధి, ఆనందం, సంతోషం మొదలగు విషయాల పట్ల ప్రాథమిక అవగాహన కలుగుతుంది.

➤ ప్రతి విద్యార్థి ముందుగా తనను గురించి తాను అంటే తనలోని బలాలను బలహీనతల్ని తెలుసుకుంటాడు.

➤ మనస్సు, ఆత్మ, శరీరం మధ్యగల తేడాలు, అవి నిర్వహించే కార్యకలాపాలు, వాటి అవసరాలు గుర్తిస్తాడు. మనస్సాక్షికి భయపడతాడు. స్వయం కృతాపరాధం చేయలేడు.

➤ కుటుంబం యొక్క అవసరం, అదిచ్చే ప్రేమానురాగాలు, నమ్మకం, స్థైర్యం, స్నేహం పొందుతాడు. వీటి ద్వారా సమాజంలో ఉత్తమ విలువల్ని కలిగి బ్రతకడం నేర్చుకుంటాడు.

➤ సామాజిక బాధ్యత కలిగి ఉంటాడు. అసాంఘిక కార్యకలాపాల జోలికి వెళ్ళడు. ప్రకృతి సమతుల్యతను కాపాడతాడు.

> మనిషి ప్రవర్తనకు గల మూలాధారాలైన సత్యం, అహింస, ఆత్మనిగ్రహం, అహంకారం లేకుండటం, భగవంతుని పట్ల స్థిరమైన భక్తి కలిగి ఉండటం, సత్యాన్వేషణ, ప్రాథమిక హక్కులు తెలుసుకుని నడుచుకుంటాడు.

> వృతి ధర్మాలు – వ్యక్తిగత, కుటుంబ, సామాజిక, ప్రకృతిపరంగా ఉండాల్సిన ధర్మాలను నేర్చుకుంటాడు. వృత్తిధర్మాలను నెరవేర్చడంలో ఎదురయ్యే సంఘర్షణలను, అనైతిక విలువల్ని తప్పించుకోవడం అలవర్చుకుంటాడు. విజిల్ బ్లోయింగ్, గ్రీస్ బిజినెస్, ఇంజినీర్ల హక్కులు తెలుసుకుంటాడు.

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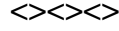
PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes) in Leadership Education

Program Outcomes of all the programs are identified at the National Level by UGC or a concerned accrediting agency. But before this process, the educational institution inculcates certain qualities among the students.

Course Outcomes:
The course outcomes help the students to manage the resources effectively to the maximum extent. This creates path to improve the processes continually.

Program Outcomes:
For every degree program, expectations are listed out by the institution under the Program Outcomes. This enables the students and stakeholders to identify and analyze complex problems. They also learn to design solutions for problems that meet the specified needs with appropriate consideration for the cultural, societal and environmental well being. They learn to use research based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

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Leadership Education
UG - Program Outcomes

I Year Semester – IV - Paper – IV (Core Paper)

ఒక విద్యార్థి 'నాయకత్వ విద్య'అనే నాలుగో సెమిస్టర్ లోని కోర్స్ ని చదవటం వల్ల :

➢ సమాజంలోఒక వ్యక్తి నాయకుడిలా తయారవ్వడం.

➢ నిర్వహణ విధులు పై అవగాహన.

➢ సామాజిక వ్యవస్థలు.

➢ ఇన్స్పిరేషన్ / ఎంకరేజ్ మెంట్.

➢ వివిధ రంగాలలోని నాయకులపై అధ్యయనం.

➢ బహుళ జాతీయ కంపెనీలు/Software, Hardware రంగాలు.

➢ కమ్యూనికేషన్ విధానం.

➢ జట్లు నిర్మాణం పనితీరు అనే అంశాలు తెలుస్తాయి.

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I Year - Semester – I - Paper – I (Core Paper)

(నాయకత్వ విద్య)

ఒక విద్యార్థి 'నాయకత్వ విద్య'అనే నాలుగో సెమిస్టర్ లోని కోర్స్ ని చదవటం వల్ల :

➢ వ్యవస్థ, నియత అనియత వ్యవస్థలు, దాని విభాగాలు, తరగతులు, రకాలు; నిర్వహణసూత్రాలు, ప్రాధాన్యత, విధులు, నిర్వహణ ఆల్లిక చట్రం; సమర్థవంతమైన నాయకత్వ లక్షణాలు అలవడుతాయి.

➢ అవగాహన, స్మారకం, గ్రహణశక్తి ప్రక్రియ, అభ్యసనం, విలువలు, ప్రేరణ, ప్రేరణలోని రకాలు, ప్రేరణ స్వభావం, ప్రేరణ సిద్ధాంతాలు వ్యక్తిత్వం లక్షణాలు, వ్యక్తిత్వ అభివృద్ధి సిద్ధాంతాలు, వ్యక్తిత్వాన్ని నిరోధించే అంశాల పట్ల అవగాహన పెరుగుతుంది.

➢ కమ్యూనికేషన్ విధానం, కమ్యూనికేషన్ ప్రాముఖ్యత, కమ్యూనికేషన్ రకాలు, కమ్యూనికేషన్ అడ్డంకులు, లాంఛనప్రాయమైన కమ్యూనికేషన్, లాంఛన ప్రాయం కాని కమ్యూనికేషన్, లావాదేవీల విశ్లేషణ, సమర్థవంతమైన నాయకత్వ లక్షణాలు, నాయకునికి నిర్వాహకునికి మధ్య గల తేడాలు తెలుస్తాయి.

➢ శక్తివంతమైనగ్రూపులు, గ్రూపుల్లోనిరకాలు, ప్రాముఖ్యత, గ్రూపు నిర్ణయాకరణ, సంఘర్షణ, సంస్థాగత సంఘర్షణలు, సంఘర్షణ మూలాధారాలు, సంఘర్షణలో వ్యూహాలు, చర్చలు, పరిష్కార మార్గాలు అర్థమవుతాయి.

➢ జట్టు మరియు జట్టు కార్యం, జట్టు లాభాలు, జట్టు లక్షణాలు, జట్టు రకాలు, జట్టు నిర్మాణం, జట్టు నైతిక విలువలు, జట్టువైఫల్యాలు, జట్టు అభివృద్ధి వ్యూహాలు, నిర్మాణ కార్యకలాపాలు వాటి విధి విధానాలు అర్థమవుతాయి.

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ATTAINMENT OF PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes)

Program Outcomes of all the programs are identified at the National Level by UGC or a concerned accrediting agency. But before this process, the educational institution inculcates certain qualities among the students.

Course Outcomes:

The course outcomes help the students to manage the resources effectively to the maximum extent. This creates path to improve the processes continually.

Program Outcomes:

For every degree program, expectations are listed out by the institution under the Program Outcomes. This enables the students and stakeholders to identify and analyze complex problems. They also learn to design solutions for problems that meet the specified needs with appropriate consideration for the cultural, societal and environmental well being. They learn to use research based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.

This is followed by use of modern tools, which they select and apply with an understanding of the limitations. They apply reasoning and understand the impact of the solutions in societal context with awareness of its impact on the environment. They learn to apply ethical principles and are made to commit themselves to professional ethics and their responsibilities. They realize that individual and team work function effectively in multidisciplinary settings. They learn to communicate effectively with society and they are able to comprehend and write effective reports and design documentation. They also make effective presentations and will be able to give and receive clear instructions. They understand the importance of critical thinking, social interaction, effective citizenship, ethics and environment and sustainability. Ultimately, they acquire the ability to engage in independent and life-long learning.

Program Specific Outcomes:

ఒక విద్యార్థి స్నాతక స్థాయిలో మూడు సెమిస్టర్స్ తెలుగు పాఠాల్ని చదవటం వల్ల ఈ కింది ప్రయోజనాలు చేకూరుతాయి :

1. ఒక తెలుగు సాహిత్యం పట్ల ఒక ప్రాథమిక అవగాహన

2. ప్రాచీన, ఆధునిక కవులపై ఒక స్పష్టత

3. గురు భక్తి, దేశ భక్తి, దైవ భక్తి, పితృ వాక్య పరిపాలన

4. సృజనాత్మక సామర్థ్యం, తప్పుల్లేకుండా మాట్లాడటం, రాయటం

5. విమర్శనాత్మక ఆలోచనా విధానం

6. విశ్లేషణాత్మక సామర్థ్యం, స్వంత నిర్ణయాలను తీసుకొనే ధైర్యం

7. స్వతంత్ర అభిప్రాయ వ్యక్తీకరణ

8. సమస్యను పరిష్కరించుకొనే నేర్పు

9. పరిశోధించాలనే ఆసక్తి, పఠనాసక్తి

10. సాహిత్య, మానవీయ, నైతిక, వృతి విలువలు, దాన గుణం సేవా గుణం

11. తెలుగును కంప్యూటరీకరించుట, PPT ప్రెజెంటేషన్స్

12. తెలుగు వారి సంస్కృతి సంప్రదాయాల్ని కాపాడుట

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SEMESTER – I Lession Outcomes

ఒక విద్యార్థి సాహితీ నందనం అనే మొదటి సెమిస్టర్ కోర్స్ ని చదవటం వల్ల :

➢ తెలుగు సాహిత్యం పట్ల పరిచయం ఏర్పడుతుంది. పద్యాలకు ప్రతి పదార్థం రాయడం వస్తుంది.కొన్ని ప్రాచీన తెలుగు పదాలకు అర్థాల్ని తెలుసుకోవచ్చు

➢ అక్షర దోషాలు లేకుండా రాయడం , సందర్భ సహిత వ్యాఖ్యల్ని రాయడం, విశ్లేషణాత్మక వ్యాసం రాయడం

➢ వ్యాకరణం పట్ల అవగాహన, పదాల్ని విడదీయడం, పదాల కూర్పు తెలుస్తుంది. సొంతంగా ఒక వ్యాసం రాయడం, ఎలానో తెలుస్తుంది.

➢ పదాల్ని పలికే విధానం, తప్పులు లేకుండా వాక్య నిర్మాణం చేయడం వస్తాయి.

➢ సొంతంగా మాట్లాడటం వస్తుంది.

I Year UG Programme – Under CBCS Semester – I - Paper – I (Core Paper)

SEMESTER – I - Lession Outcomes - (సాహితీ నందనం)

ఒక విద్యార్థి సాహితీ నందనం అనే మొదటి సెమిస్టర్ కోర్స్ ని చదవటం వల్ల :

➢ ప్రాచీన కవిత్వం - ఆంధ్ర మహా భారతం లోని 'గంగా శంతనుల కథ'– నన్నయ; 'ద్రౌపది పరిదేవనం'– తిక్కన భారతం పట్ల కనీస అవగాహన, భీష్ముని పితృవాక్య పరిపాలన, ఇచ్చిన మాటకు కట్టుబడటం, ఉత్తమ కుటుంబ, మానవ సంబంధాలు ఏర్పరచుకోవడం, ప్రాచీన భారత సంస్కృతిపై అవగాహన, ప్రాచీన సాహిత్యం పట్ల ఆసక్తి కలుగుతాయి.

➢ ఆధునిక కవిత్వం - గురజాడ అప్పారావు -'కన్యక' సంఘ సంస్కరణ, రాజరిక పాలన, గర్వం-నాశనం, అరాచకత్వం, స్త్రీ చైతన్యం, సనాతన ధర్మాలు అవగతమవుతాయి.

➢ శ్రీ శ్రీ దేశ చరిత్రలు -చరిత్రను ఒక కొత్త కోణంలో తెలుసుకోవచ్చు. ఆయా దేశాల చరిత్రను అధ్యయనం చేసే ఆలోచన కలుగుతుంది. సత్య శోధన, పరిశోధనపై ఆసక్తి కలుగుతాయి.

➢ చింతలతోపు - పాపినేని శివ శంకర్ - గుంటూరు జిల్లా మాండలికం, పలుకుబళ్ళు, వ్యవసాయం, రైతులకష్టాలు, అప్పులు, ఆత్మహత్యలు, ప్రభుత్వ వైఫల్యాలు వడ్డీ వ్యాపారుల, దళారుల దోచుకోవడం అనే అంశాలు తెలుస్తాయి.

➢ సావు కూడు బండి – నారాయణస్వామి - ఆకలి, అప్పులు, కరువు, విచిన్నమవుతున్న మానవసంబంధాలు తెలుస్తాయి.

➢ వ్యాకరణంలో సంధులు, సమాసాలు వాక్య నిర్మాణ పద్ధతులు, పలికే విధానం అర్థమవుతాయి .

➢ అక్షర దోషాలు దోషాలు సరిదిద్ది సాధురూపాలు రాయడం తెలుస్తుంది.

➢ శ్రీ శ్రీ దేశ చరిత్రలకి సంబంధించి పేరడీలు సేకరించడం అలవడుతుంది

➢ ముత్యాల సరాల ఛందస్సులో కవితా రచన చేసే శక్తి వస్తుంది.

I Year UG Programme – Under CBCS Semester – II
Paper –II (Core Paper) - SEMESTER – II

ఒక విద్యార్థి సాహితీ కౌముది అనే రెండవ   సెమిస్టర్ కోర్స్ ని చదవటం వల్ల :

❖ భక్తి భావం, భావవ్యక్తీ కరణ,

❖ కవితాసృజన, కథాసృజన

❖ సంస్కృతి సంప్రదాయాలపట్ల గౌరవం, సనాతన ధర్మాలపై అవగాహన

❖ స్త్రీలపై గౌరవం, స్త్రీ స్వేచ్ఛ, సమానత్వం

❖ పూర్వీకుల ఆశయాలు, నాటకాలు, వీధి నాటక కళాకారుల జీవనం విధానం .

❖ నాటకాలపై ఆసక్తి

❖ నవలలపై ఆసక్తి

❖ కథలపై ఆసక్తి

I Year UG Programme – Under CBCS Semester – II
Paper –II (Core Paper)
SEMESTER Lesson Outcomes – II (సాహితీ కౌముది)

ఒక విద్యార్థి సాహితీ కౌముది అనే రెండవ సెమిస్టర్ కోర్స్ ని అధ్యయనం చేయడం వల్ల :

❖ ధూర్జటి - సాయుజ్యము - భక్తి భావం, ఈర్ష్య లేకుండా నిష్కల్మష మనస్సుతో భగవంతుని సేవించడం, పొరుగువారి పనుల్ని హేళన చేయకుండా వుండటమనేవి తెలుస్తాయి.

- సుభద్రా పరిణయం - చేమకూర వెంకట కవి - తెలుగువారి వివాహ సంప్రదాయాలు, సంస్కృతి, పెళ్ళిలోని ఆచారాలు పద్ధతులు, కట్న కానుకలు, బావా మరదళ్ల సరసాలు, అపహాస్యాలు అప్పగింతలు చూడచ్చు.

- ఫిరదౌసి లేఖ-గుర్రం జాషువా జాషువా కవితా మాధుర్యం, నిశిత పరిశీలన, రాజ అహంకారం, కవుల ఆక్రోశం

- చెట్టు - గెడ్డాపు సత్యం - చెట్టు వల్ల లాభాలు, ప్రకృతి, పర్యావరణ సమతుల్యత, స్వచ్చమైన గాలి, కాలుష్య నివారణ

- నమ్ముకున్న నేల- ఆచార్య కేతు విశ్వ నాథ రెడ్డి – రాయలసీమ ప్రాంత జీవన విధానం, కరువులు, రైతులు పొలాల్ని అమ్ముకోవడం, అప్పులపాలవడం, ఆత్మహత్యలు, ప్రభుత్వ వైఫల్యాలు, అరకొర రుణాలు, దళారులు

- 'అమ్మకి ఆదివారం లేదా'? రంగనాయకమ్మ - స్త్రీ చైతన్యం, పురుషాధిక్యత, స్త్రీలపై గౌరవం, స్త్రీస్వేచ్చ, సమానత్వం

- నవల - బతుకాట డా. వి. ఆర్. రాసాని - వృత్తి కళాకారుల జీవన విధానం, జానపద భారత కథలు, నాటకాలు, నాటకాలు వేసేవాళ్ళ పరిస్థితులు, రాయలసీమ ప్రాంతంలో వీధినాటకాలు

I Year UG Course Out Comes –Under CBCS Semester – III
Paper – III (Core Paper)
SEMESTER – III

ఒక విద్యార్థి సాహితీ సౌరభం అనే మూడవ సెమిస్టర్ కోర్సు ని అధ్యయనం చేయడం వల్ల:

- విష్ణుమూర్తి దశావతారాలు, భాగవతం పురాణాల పట్ల అవగాహన

- మాట తిరుగలేరు మానధనులు అనే సత్యం, దానవీర గుణం, గురువు కుటిలత

- భరతుని నాట్య శాస్త్రం, ఉత్తమ గుణ శీలాలతో రాజ్య పరిపాలన

- చాతుర్వర్ణ వ్యవస్థ పై అవగాహన – హరిజనుల హీన పరిస్థితులు

- సంక్రాంతి పండుగతో వివిధ వ్యక్తులతో కొత్త కొత్త బంధుత్వాలు ఏర్పరచుకోవడం

- తెలుగు భాష గొప్పదనం , ఇతరుల అంచనా, తెలుగులో సొంతంగా వ్యాసం రాయటం

- వ్యక్తిత్వ వికాసం చెందుతుంది

- మనో విశ్లేషణాత్మక శక్తి పెరుగుతుంది

❖ నక్షత్రాలు, సంవత్సరాల పేర్లు తెలుసుకోవడం, వ్యక్తిత్వాన్ని ఏవిధంగా మెరుగుపరచుకోవచ్చో ఒక వ్యాసం రాయడం, అంత్యానుప్రాసాలంకారంలో సొంతంగా కవిత రచన

I Year UG Course Out Comes – Under CBCS Semester – III

Paper –III (Core Paper)

SEMESTER – Lesson out Comes – III (సాహితీ సౌరభం)

ఒక విద్యార్థి సాహితీ సౌరభం అనే మూడవ సెమిస్టర్ కోర్సు ని అధ్యయనం చేయడం వల్ల:

❖ వామనావతారం - బమ్మెర పోతన - దశావతార పరిచయం, భాగవతం, పురాణాల పట్ల అవగాహన, మాట స్థిరత్వం, దాన గుణం అలవర్చుకోవడం, ఇచ్చిన మాట తప్పకపోవడం.

❖ శాలివాహన విజయం – కొరవి గోపరాజుజానపద కథా ధోరణి. ఇది కాస్త వాస్తవిక జీవితానికి దూరంగా వుంటుంది. అన్ని నమ్మలేం. అయితే పూర్వ కాలపు రాజుల విధానాల్ని, వారి గుణ గణాలని తెలుసుకోవచ్చు .

❖ హరిజన శతకం - కుసుమ ధర్మన్న - ఈ సమాజంలోని చీలికలు తెలుస్తాయి. కృతయుగం ధర్మాలు, నేటి కలియుగ ధర్మాలు, హరిజనుల దుస్థితి

❖ సంక్రాంతి సంబరం – రాయప్రోలు సుబ్బారావు - తెలుగువారి పండుగైన సంక్రాంతి వైభవం, కొత్త కోడళ్ళు కొత్త అల్లుళ్ళు సందడి, పశువుల అలంకరణ

❖ తెలుగు భాష -ఆచార్య గుజ్జర్లమూడి కృపాచార్య తెలుగు భాష గొప్పదం, చక్కగా మాట్లాడటం రాయటం, చదవటం నేర్చుకోవచ్చు. వ్యాస రచన చేయచ్చు.

❖ వ్యక్తిత్వ వికాసం –ఆచార్య రాచపాలెం చంద్ర శేఖర రెడ్డి-మానవ వ్యక్తిత్వం వికాసం చెందటానికి తోడ్పడే విషయాలు, వ్యక్తిత్వాన్ని నాశనం చేసే విషయాలు, ఈ సమాజంలో ఎలా బతకాల్నో, ఎలా బతకకూడదో మొదలగు విషయాలు తెలుస్తాయి .

❖ అసమర్థుని జీవయాత్ర – త్రిపురనేని గోపీచంద్ - వివిధ దశలలో, సందర్భాల్లో, సమయాల్లో మానవ మనస్తత్వం ఎలా వుంటుందో తెలుస్తుంది. మనిషి ఏమీ చేయకుండా నీమరై ఎలా చనిపోతాడో తెలుపుతుంది ఈ నవల.

❖ ఛందస్సు అలంకారాలు వల్ల విషయాల్ని పోలికల్ని వేసి చెప్పవచ్చు.

❖ విద్యార్థి కృత్యాలు: తెలుగు వారాలు, తిథులు, నక్షత్రాలు, సంవత్సరాలపేర్లు తెలుసుకోవడం

❖ వ్యక్తిత్వాన్ని ఏవిధంగా మెరుగుపరచుకోవచ్చో ఒక వ్యాసం రాయడం

❖ అంత్యానుప్రాసాలంకారంలో సొంతంగా కవిత రచన

National Level Workshop on OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES (Under Assistance of UGC Autonomous Grant) - 22nd November 2019 – Faculty of M.Sc(Computer Science) - Dr. P.J.S.Kumar, HOD,Ch.Mallika,B. Tarmila Devi, M.Ravi Sundar, M. Jesu Babu, K. Lavanya, P.Santhi, T.Veena, A.Durga Bhavani.

The Learning Outcomes-Based Curriculum Framework (LOCF) for the Programs in M.Sc. (Computer Science)

The Learning Outcomes-based Curriculum Framework (LOCF) for the programs in M.Sc. (Computer Science) is intended to provide a broad framework to create an academic base that responds to the need of the students to understand the basics of Computer Science and its ever evolving nature of applications in explaining all the observed natural phenomenon as well as predicting the future applications to the new phenomenon with a global perspective.

M.Sc. (Computer Science) programme has been designed to prepare graduates for attaining the following program outcomes:

- An ability to identify, critically analyze, formulate and develop computer applications
- An ability to apply knowledge of mathematics and computer science in practice
- An ability to select modern computing tools and techniques and use them with ease
- An ability to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability
- An ability to function professionally with ethical responsibility as an individual as well as in multidisciplinary teams with positive attitude
- An ability to communicate effectively
- An ability to appreciate the importance of goal setting and to recognize the need for life-long learning
- Familiarize themselves with programming concepts, analysis and reporting systems
- Acquire leadership skills, understand group and individual dynamics, and be able to work in teams
- Enhance oral and written communication skills
- Develop comprehensive problem solving and decision making skills

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P.G Department of Computer Science
M.Sc. . (CS) - Semester – I - Paper Code – 18MCS101 – Paper – I
OBJECT ORIENTED PROGRAMMING SYSTEMS

Upon successful completion of this course student is able to:

➢ Understand the concept and underlying principles of Object-Oriented Programming.

➢ Understand how object-oriented concepts are incorporated into the Java programming language.

➢ Knowledge of the structure and model of the Java programming language

➢ Develop efficient Java applets and applications using OOP concept

➢ Develop software in the Java programming language.

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M.Sc. . (CS) - Semester – I - Paper Code – 18MCS102 – Paper – II
COMPUTER ORGANIZATION

Upon successful completion of this course student is able to:

➢ Identify, understand and apply different number systems and codes.

➢ Understand the digital representation of data in a computer system.

➢ Understand the general concepts in digital logic design, including logic elements, and their use in combinational and sequential logic circuit design.

➢ Understand computer arithmetic formulate and solve problems, understand the performance requirements of systems

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M.Sc. . (CS) - Semester – I - Paper Code – 18MCS103 – Paper – III
DISCRETE MATHEMATICAL STRUCTURES

Upon successful completion of this course student is able to:
  - ➢ Efficiency in handling with discrete structures

  - ➢ Efficiency in set theory and handling formal of notations of size, matching, ordering, planarity.

  - ➢ Efficiency in solving concrete combinational problems.

  - ➢ Ability to deal with notations of mapping and via that notation ability to tackle various notations of infinity like countable, uncountable etc.

  - ➢ Apply to use graphs as unifying theme of various combinational problems.

  - ➢ Ability to apply combinational institutions in network theory , data structure and various other fields of science

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M.Sc. (CS) - Semester – I - Paper Code – 18MCS104 – Paper – IV
DATABASE MANAGEMENT SYSTEMS

Upon successful completion of this course, students should be able to:

  - ➢ Describe the fundamental elements of relational database management systems.

  - ➢ Design ER-models to represent simple database application scenarios.

  - ➢ Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data.

  - ➢ Improve the database design by normalization.

  - ➢ Understands the properties of transaction management and recovery management.

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M.Sc. . (CS) - Semester – I - Paper Code – 18MCS105 – Paper – V
DATA STRUCTURES

Upon successful completion of this course student is able to:

- ➢ Implement mathematical functions and analyze algorithms and algorithm correctness.

- ➢ Implement stings and Arrays.

- ➢ Describe stack, queue and linked list operations, tree concepts.

- ➢ Have knowledge of Graphs and Sorting and Searching Techniques.

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M.Sc. (CS) - Semester – I - Paper Code – 18MCS106P – Practical – I
DATA STRUCTURES LAB USING JAVA

Upon successful completion of this course student is able to:

- ➢ Implement Object Oriented programming concept for developing skills of logic building activity.

- ➢ Demonstrates how to achieve reusability using inheritance, interfaces and packages.

- ➢ Demonstrate and use of different exception handling mechanisms and concept of multithreading.

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M.Sc. (CS) - Semester – I - Paper Code – 18MCS107P – Practical – II
DBMS LAB

Upon successful completion of this course, students should be able to:

- ➢ Construct problem definition statements for real life applications and implement a database for the same.

- ➢ Write queries in SQL to retrieve any type of information from a data base.

- ➢ Create and populate a RDBMS, using SQL.

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M.Sc. (CS) - Semester – I - Paper Code – 18MCS108P – Practical – III
OBJECT ORIENTED PROGRAMMING LAB

Upon successful completion of this course, students should be able to:

➢ Develop simple applications in the Java programming language.

➢ Implement appropriate program design using good programming style.

➢ Develop efficient Java applets and applications using OOP concept.

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M.Sc. (CS) - Semester – II - Paper Code – 18MCS201 – Paper – I
COMPUTER NETWORKS

Upon successful completion of this course student is able to:

➢ Describe the functions of each layer in OSI and TCP/IP model.

➢ Classify the routing protocols and analyze how to assign the IP addresses for the given network.

➢ Describe the functions of data link layer and explain the protocols.

➢ Explain the types of transmission media with real time applications.

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M.Sc. (CS) - Semester – II - Paper Code – 18MCS202 – Paper – II
OPERATIONS RESEARCH

Upon successful completion of this course, students should be able to:

➢ Use quantitative methods and techniques for effective decisions–making.

➢ Apply model formulation and applications that are used in solving business decision problems.

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M.Sc. . (CS) - Semester – II - Paper Code – 18MCS203 – Paper – III
THEORY OF COMPUTATION

Upon successful completion of this course, students should be able to:

- Explain different types of machine structure for regular languages.
- Understand the laws and properties of Regular expressions and Regular languages.
- Describe the Grammars and PDA's.
- Interpret the knowledge of CFL and Turing machine Un-decidable problems.

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M.Sc. (CS) - Semester – II - Paper Code – 18MCS204 – Paper – IV
OBJECT ORIENTED SOFTWARE ENGINEERING

Upon successful completion of this course, students should be able to:
- Plan a software engineering process life cycle.

- Able to elicit, analyze and specify, design and develop the code.

- Develop the code from the design and effectively apply relevant standards and perform testing, and quality management and practice.

- Use modern engineering tools necessary for software project management, time management and software reuse.

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M.Sc. . (CS) - Semester – II - Paper Code – 18MCS205 – Paper – V
OPERATING SYSTEMS

Upon successful completion of this course student is able to:

- Define the basic concepts of operating system, its functions and services.
- Express various views and management policies adopted by operating system as pertaining with Processes, Deadlock, memory, File and I/O operations.
- Compare the various algorithms and   comment about performance of various algorithms used for Processes, Deadlock, memory, File and I/O operations.
- Knowledge of basic concepts towards Process Synchronization and related issues.
- Better understanding on Protection & Security.

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M.Sc. . (CS) - Semester – II - Paper Code – 18MCS206P – Practical – I
OBJECT ORIENTED SOFTWARE ENGINEERING LAB

Upon successful completion of this course, students should be able to:

➢ Sketch a Modeling with UML for project development.

➢ Apply different modeling techniques for project.

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M.Sc. . (CS) - Semester – II - Paper Code – 18MCS207P – Practical – II
OPERATING SYSTEM & NETWORKS LAB

Upon successful completion of this course student is able to:

➢ Demonstrate the knowledge of Systems Programming and Operating Systems.

➢ Compare and analyze the different implementation approach of system programming and operating system abstractions.

➢ Implementing operating systems scheduling algorithms.

➢ Implement network Programming to obtain IP address, Machine Name and communications etc..

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M.Sc. (CS) - Semester – II - Paper Code – 18MCS208
TECHNICAL REPORT WRITING

Upon successful completion of this course, students should be able to:

➢ Study research papers for understanding of a new field, in the absence of a textbook, to summarize and review them.

➢ Impart skills in preparing detailed report describing the project and results.

➢ Effectively communicate by making an oral presentation before an evaluation committee.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS301 – Paper – I
CRYPTOGRAPHY & NETWORK SECURITY

Upon successful completion of this course, students should be able to:

➢ Identify information security goals, classical encryption techniques and decryption techniques to solve problems related to confidentiality and authentication

➢ Apply different digital signature algorithms to achieve authentication and create secure applications.

➢ Apply network security basics, analyze different attacks on networks and evaluate the performance of firewalls and security protocols like SSL, IPSec, and PGP.

➢ Apply the knowledge of cryptographic utilities and authentication mechanisms to design secure applications.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS302 – Paper – II
DESIGN & ANALYSIS OF ALGORITHMS

Upon successful completion of this course student is able to:

➢ Analyze the asymptotic performance of algorithms.

➢ Demonstrate a familiarity with major algorithms and data structures.

➢ Apply important algorithmic design paradigms and methods of analysis.

➢ Develop algorithms for sorting, searching, insertion and matching.

➢ Acquire knowledge in NP Hard and complete problem.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS303 – Paper – III
DATA WAREHOUSING & DATA MINING

Upon successful completion of this course, students should be able to:

➢ Understand the basics of data warehouse and Data Mining concepts, functionalities and Patterns.

- ➢ Aware of constructing the data warehouse, its techniques and concepts.
- ➢ Classify the data by implementing various algorithms.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS304 – Paper – IV
WEB TECHNOLOGIES

Upon successful completion of this course, students should be able to:

- ➢ Use concepts of WWW, XHTML tags and CSS to develop web formatted pages.
- ➢ Design dynamic web pages and develop the modern web pages XML with different layouts as per applications.
- ➢ Develop Rich Internet Applications (Using Ajax) and install web servers (IIS and Apache).
- ➢ Develop simple applications using server side scripting such as CGI, PHP and JSF to generate the web pages dynamically using the database connectivity

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS305.1 – Paper – V
ADVANCED DATABASE MANAGEMENT SYSTEMS

Upon successful completion of this course, students should be able to:

- ➢ Track the algorithms for query processing and optimization.
- ➢ Learn the concepts of database system architecture and system catalog.
- ➢ Follow distributed database concepts and advanced concepts of design.
- ➢ Know OODBMS standards & emerging database technologies & applications.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS305.2 – Paper – V
TCP/IP

Upon successful completion of this course, students should be able to:

- ➢ Understand the TCP/IP and OSI models and it importance.
- ➢ Explain DNS, HTTP, E-mail, Telnet and FTP protocols in detail.
- ➢ Understand Internet protocol with routing algorithms and IPV4 and IPV6.

- ➢ Explain the role of TCP protocol and various congestion avoidance techniques.

- ➢ Define basic CISCO router functionality and Precautions while, selecting the router accessories and simple configuration.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS305.3– Paper – V
SOFTWARE TESTING

Upon successful completion of this course, students should be able to:

- ➢ Investigate the reason for bugs and analyze the principles in software testing to prevent and remove bugs.

- ➢ Generate test cases and apply software testing techniques.

- ➢ Identify the inputs and deliverables of the testing.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS305.4– Paper – V
COMPILER DESIGN

Upon successful completion of this course, students should be able to:

- ➢ Identify the basics of compiler design and apply for real time applications.
- ➢ Comparison of different translation languages.
- ➢ Predict the importance of code optimization.
- ➢ Define compiler generation tools and techniques.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS306P– Practical – I
WEB TECHNOLOGIES LAB

Upon successful completion of this course, students should be able to:

- ➢ Implement dynamic web pages with validation using JavaScript objects by applying different event handling mechanism.
- ➢ Build well-formed XML Document and implement Web Service using Java.
- ➢ Use AJAX Programming Technique to develop RIA.
- ➢ Develop simple web application using server side PHP programing and Database Connectivity using MySQL.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS307P– Practical – II
DATA MINING LAB

Upon successful completion of this course, students should be able to:

- ➢ Apply mining techniques for realistic data.
- ➢ Implement the classification and clustering techniques on various types of data set.
- ➢ Understand how to import and export CSV files.
- ➢ To develop and visualization of data mining algorithms.

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M.Sc. (CS) - Semester – III - Paper Code – 18MCS308P– Practical – III
TESTING TOOLS LAB

Upon successful completion of this course, students should be able to:

- ➢ Design test planning.
- ➢ Apply the software testing techniques in commercial environment.
- ➢ Use practical knowledge of a variety of ways to test software.

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M.Sc. (CS) - Semester – IV - Paper Code – 18MCS401– Paper – I
DOT NET PROGRAMMING

Upon successful completion of this course, students should be able to:

- ➢ Explain the concepts of different languages such as VB,C#,ASP.NET and ADO.NET
- ➢ Develop different types of applications.
- ➢ Design Web applications that can access data from data base.

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M.Sc. (CS) - Semester – IV - Paper Code – 18MCS402– Paper – II
MOBILE COMPUTING

Upon successful completion of this course, students should be able to:

- ➢ Define the basic concepts of worldwide networks, wireless transmission and generations of Mobile systems.

➢ Perceive the architecture and common technologies for mobile communication.

➢ Grasp the IP network protocols and methods used in IP routing of packets.

➢ Apprehend the working of Mobile IP.

➢ Describe NGNs, operating systems, application development using WML, XML in Mobiles.

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M.Sc. (CS) - Semester – IV - Paper Code – 18MCS403.1 – Paper – III
CLOUD COMPUTING

Upon successful completion of this course, students should be able to:

➢ Articulate the main concepts, key technologies, strengths, limitations and issues of virtualization.

➢ Understand the open source architectures and services of cloud computing.

➢ Develop and deploy cloud applications using popular cloud platforms.

➢ Explore the risks, consequences and costs of cloud computing and understand the implementations of AAA model in the cloud.

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M.Sc. (CS) - Semester – IV - Paper Code – 18MCS403.2 – Paper – III
ARTIFICIAL INTELLIGENCE (18MCS403.2)

Course Outcomes:
Upon successful completion of this course, students should be able to:

➢ Demonstrate knowledge of the building blocks of AI as presented in terms of intelligent agents

➢ Analyze and formalize the problem as a state space, graph, design heuristics and select amongst different search or game based techniques to solve them.

➢ Formulate and solve problems with uncertain information using Bayesian approaches.

➢ Apply concept Natural Language processing to problems leading to understanding of cognitive computing.

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M.Sc. (CS) - Semester – IV - Paper Code – 18MCS404P– Practical – I
DOT NET PROGRAMMING LAB

Upon successful completion of this course, students should be able to:

➢ Develop different types of applications.

➢ Design Web applications that can access data from data base.

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M.Sc. (CS) - Semester – IV - Paper Code – 18MCS405
PROJECT WORK

Upon successful completion of this course, students should be able to:

➢ Analyze, design and implement a software project using SDLC model.

➢ Work as a team and to focus on getting a working project done with in a stipulated time.

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Programme Outcomes and Course Outcomes in U.G. Mathematics

In the Outcome Based Education model as suggested by UGC or concerned University, the Programme Outcomes are specific rather than narrower statements. They describe what students are expected to know and be able to do upon the graduation. These relate to the skills, knowledge, and behavior that students acquire in their degree through the programme. The Programme Outcomes can be attained through the attainment of Course Outcomes of the courses pertaining to that programme.

Programme Outcomes of B.Sc., Mathematics

B.Sc. Three Year, Six Semester Degree Programme CBCS under Krishna University from the Academic Session 2015-16. Our faculty of Mathematics pondered over the current syllabus and tried to chalk out some specific outcomes of B.Sc. three year, six semester Degree Programme. The expected Programme Outcomes may be listed as follows:

➢ Think in a critical manner.
➢ Communicate mathematical ideas both orally and in writing.
➢ Formulate and develop mathematical arguments in a logical manner.
➢ Acquire good knowledge and understanding in advanced areas of mathematics chosen by the student from the given courses.
➢ Equip the student with skills to analyze problems, formulate hypothesis, evaluate and validate results, and draw reasonable conclusions in writing proofs.
➢ Investigate and apply mathematical problems and solutions in a variety of contexts related to science, technology, business and industry.
➢ Investigate and solve unfamiliar math problems.
➢ Contribute as trained work force to provide teaching-learning support to schools.

Beyond the boundary: After completion of graduation he/she may switch the career to any technical or professional line. So that they courses like M. Sc, MBA. MCA. They can also prepare for government jobs.

Programme Specific Outcomes

➢ Understanding of the fundamental axioms in mathematics and capability of developing ideas based on them.
➢ Inculcate mathematical reasoning.
➢ Prepare and motivate students for research studies in mathematics and related fields.
➢ Provide knowledge of a wide range of mathematical techniques and application of mathematical methods/tools in other scientific domains.
➢ Provide advanced knowledge on topics mathematics, empowering the students to pursue higher degrees at reputed academic institutions.
➢ Nurture problem solving skills, thinking, creativity through assignments, project work.
➢ Assist students in preparing (personal guidance, books) for competitive exams

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UG Department of Mathematics - Programme and Course Outcomes

I Year B. Sc. Programme (CBCS) - Semester - I - Paper – I
DIFFERENTIAL EQUATIONS

At the end of the Semester the student is able to:

- ➢ Extract the solution of differential equations of the first order and of the first degree by Linear form and reducible to Linear Form, Exact Differential equations, Integrating Factors methods
- ➢ Find a solution of differential equations of the first order and of a degree higher than the first by using methods of solvable for p, x and y-Clairaut's equations, Orthogonal Trajectories
- ➢ Compute all the solutions of second and higher order linear differential equations with constant coefficients, linear equations with variable coefficients.

Skills gained:

1. Solve simultaneous linear equations with constant coefficients and total differential equations.
2. Form partial differential equations.
3. Find the solution of First order partial differential equations for some standard types.
4. Apply Laplace transform to solve second order linear differential equation and simultaneous linear differential equations.
5. Use inverse Laplace transform to return familiar functions.

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ENVIRONMENTAL STUDIES (FOUNDATION COURSE) (ALL FCS ARE TO BE TAKEN TO THE END)

Students will able to

- ➢ Understanding environmental concerns by the students at the undergraduate level.

- ➢ Understanding the relationship of man with the environment and help them change his attitude for more positive, proactive, eco-friendly and sustainable lifestyles

- ➢ Getting information about climate change, Global warming, Acid rain, Green house effect, Ozone, layer depletion.

- ➢ Cultivating attitudes to safeguard the environment built particularly with field experience.

- ➢ Realization of the impact of human actions on the immediate environment and the linkage with the larger issues.

- ➢ Getting information about Environment Protection Acts

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I Year B. Sc. Programme - Semester - I – Core Paper – II
SOLID GEOMETRY

At the end of the Semester the student will be able to:

- ➢ Describe the various forms of equation of a plane, find the angle between planes, Bisector planes, Perpendicular distance from a point to a plane.

- ➢ Define the various forms of equation of a line, Intersection of two lines, Image of a line on a plane, Define coplanar lines and illustrate, Compute the angle between a line and a plane, length of perpendicular from a point to a line, Define skew lines, Calculate the Shortest distance between two skew lines.

- ➢ Give a definition and equation of Sphere, plane section of a sphere, Intersection of two spheres, Sphere through the given circle, power of a point, tangent planes, plane of contact, polar plane, pole of a plane, conjugate points and conjugate lines.

- ➢ Define cone, vertex, guiding curve, generators, Enveloping cone Reciprocal cone, Right circular cone and solving problems on them. Definition of Cylinder, Enveloping cylinder, right circular cylinder and solving problems on them.

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II Year Semester – III , Paper – III (Core Paper)
ABSTRACT ALGEBRA

At the end of the Semester the student will be able to:
- ➢ Analyze mapping groups, abelian groups and their properties, composition table with Examples, order of a group

- ➢ Develop aspects of Subgroups, Cossets, Lagrange's theorem, normal subgroups and quotient groups.

- ➢ Distinguish the concept of Homomorphisms and Automorphisms, Kernal of a Homomorphism, Fundamental theorem on Homomorphism and applications.

- ➢ Structure of permutation group, Even, Odd and cyclic permutations, Cayley's theorem, Cyclic groups.

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II Year Semester – IV , Paper – IV (Core Paper)
REAL ANALYSIS

Students will able to:
- ➢ Define different types of sequence.

- ➢ Discuss the behavior of the geometric sequence.

- ➢ Prove properties of convergent and divergent sequence.

- ➢ Verify the given sequence in convergent and divergent by using behaviour of

Monotonic sequence.

➤ Prove Cauchy's first limit theorem, Cauchy's Second limit theorem.

➤ Give examples for convergence, divergence and oscillating series.

➤ Discuss the behavior of the geometric series.

➤ Prove theorems on different test of convergence and divergence of a series of
   Positive terms.

➤ Verify the given series is convergent or divergent by using different test.

➤ Investigate the ideas of continuity

➤ Examine the derivatives of functions and apply few theorems based on it.

➤ Learn the properties of Riemann integral.

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ANALYTICAL SKILLS FOUNDATION COURSE

Students will able to:

➤ Learn the percentages, profit &loss, simple and compound interest.

➤ Study problems on Average, Ratio, proportion, time -distance and speed.

➤ Find out divisibility rules, LCM&GCD

➤ Gain knowledge of Analogies of numbers and alphabets, missing numbers in
   sequence or series.

➤ Analyzing the data from the given table, graph, Bar diagram, pie chart, Venn diagram
   and the questions pertaining to the data are to be answered.

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III Year Semester –V , Paper –V (Core Paper)
RING THEORY AND VECTOR CALCULUS

Students will able to:
➤ Gain knowledge in Rings, Boolean rings, division rings, Integral domain, Field,
   Characteristic of a ring.

➤ Exposed to the concepts of Ideals, Prime, Maximal Ideals, Quotient Rings and
   Homomorphism, Fundamental theorem of Homomorphism

➤ Find and interpret the gradient, curl, divergence for a function at a given point.

➤ Interpret line, surface and volume integrals

➤ Evaluate integrals by using Green's Theorem, Stokes theorem, Gauss's Theorem

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III Year Semester –V , Paper –VI (Core Paper)
LINEAR ALGEBRA

Students will able to:

➤ Define Vector Space, sub space, linear span and linear independence, linear dependence of vectors, basis, dimension, quotient space .

➤ Discuss the linear transformations, rank, nullity.

➤ Explain Properties of Matrices, Rank of the matrix, normal form, Inverse of the matrix by elementary transformations.

➤ Solve the system of simultaneous linear equations. Find the characteristic equation, eigen values and eigen vectors of a matrix. Prove Cayley- Hamilton theorem

➤ Use Inner product vector space, Schwartz inequality, triangle, parallelogram law, orthogonality, orthonormal set, Gramschmidt orthogonalisation process, Bessel's inequality, Parseval's Identity.

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III Year Semester –VI , Paper –VII (Core Paper)
Numerical Analysis

Students will able to:

➤ Define Basic concepts of operators Δ, E, ∇

➤ Solve problems in interpolation using Newton forward formula and Newton backward formula.

➤ Derive Gauss's forward formula, Gauss's backward formula and Stirling's, Bessel's formula.

➤ Use Interpolation with unequal spaced points, Derive Lagrange's formula, Newton's divided difference formula.

➤ Define Errors and their analysis, Absolute, Relative, Percentage errors, A general error formula.

➤ Solve the equations by using bisection method, iteration method, Regula falsi method, Newton

➤ Explain Raphson method, Ramanujan's method.

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HOD -: Dr. C. Lakshmi Nath,
Associate Professor's:- M.B Suvarchala, K. Hima Giridhara Rao,
Assistant Professor's:- Md. Saleem, V. Nagendra Kumar, A.N.V.D. Padmaja, Smt. Naziya Sulthana, B. Phani
Rajya Lakshmi, Mr. M. Bharat Kumar, T. Navya, Dept. Technician.

P.G. Department of Business Administration

PROGRAMME OUTCOMES (P.Os)

The Learning Outcomes-based Curriculum Framework (LOCF) for the program in Business Administration provides a broad framework to help the student demonstrate**:**

(i) A systematic, extensive and coherent knowledge and understanding of the academic field of study as a whole and its applications including a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of Business Administration;

(ii) Procedural knowledge that creates different types of professionals related to the subject area of Business Administration, including research and development;

(iii) Skills in areas related to one's specialization and current developments in the academic field of Business Administration, and an ability to use established techniques of analysis and enquiry within the area of specialization;

(iv) Comprehensive knowledge about materials and techniques and skills required for identifying Business Administration problems and issues in their area of specialization in Business Administration;

(v) Skills in identifying information needs, collection of relevant quantitative and/or qualitative data drawing on a wide range of sources, analysis and interpretation of data using methodologies as appropriate to the subject of Business Administration in the area of specialization;

(vi) Use knowledge, understanding and skills in Business Administration for critical assessment of a wide range of ideas and complex problems and issues relating to the various sub fields of Business Administration;

(vii) Communicate the results of studies undertaken in the academic field of Business Administration accurately in a range of different contexts using the main concepts, constructs and techniques of the subject of Business Administration;

(viii) Address one's own learning needs relating to current and emerging areas of study relating to Business Administration, making use of research, development and professional materials as appropriate, including those related to new frontiers of knowledge in Business Administration;

(ix) Apply one's knowledge and understandings relating to Business Administration and skills to new/unfamiliar contexts and to identify and analyze problems and issues and seek solutions to real-life problems;

(x) Demonstrate subject-related and transferable skills that are relevant to some of the Business Administration related jobs and employment opportunities

(xi) Programme Specific Outcomes (P.S.Os) of MBA include: managerial skills, decision making, leadership and entrepreneurial abilities, logical and practical approach, risk taking approaches, Critical Thinking, Effective Communication, Social Interaction and

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governance, Effective Citizenship, Ethical approaches, Comprehension of Environment and Sustainability and Self directed and lifelong learning.

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P.G. Department of Business Administration

M.B.A. - Semester – I - Paper Code – 18MBA101 – Paper - I

MANAGEMENT PROCESS AND ORGANIZATION BEHAVIOUR

After completion of this course, students will be able to:

➤ Understand Fundamental concepts, functions, principles of management, challenges and trends.

➤ Describe Planning, process of planning, types of organizations and staffing.

➤ Explain Motivation, leadership and control systems and techniques.

➤ Identify Concept of Organizational behavior and theories determinants of individual behavior.

➤ Analyze Group dynamics, organizational culture, diagnosis and group performance.

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M.B.A. - Semester – I - Paper Code – 18MBA102 – Paper - II

MANAGERIAL ECONOMICS

After completion of this course, students will be able to:

➤ Understand Concept of economics, managerial economics, types of demand and demand forecasting.

➤ Explain Theories of firm and production analysis.

➤ Define Market structures, cost analysis, profit analysis and maximization of profit and wealth.

➤ Describe Indian economic environment and its associated concepts with its measurement.

➤ Analyze Trade cycles and the corrective measures on investment and consumption functions.

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National Level Workshop on OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES
(Under Assistance of UGC Autonomous Grant) - 22nd November 2019. Faculty of M. B. A.
HOD -: Dr. C. Lakshmi Nath,
Associate Professor's:- M.B Suvarchala, K. Hima Giridhara Rao,
Assistant Professor's:- Md. Saleem, V. Nagendra Kumar, A.N.V.D. Padmaja, Smt. Naziya Sulthana, B. Phani
Rajya Lakshmi, Mr. M. Bharat Kumar, T. Navya, Dept. Technician.

M.B.A. - Semester – I - Paper Code – 18MBA103 – Paper - III

BUSINESS ANALYTICS FOR MANAGERIAL DECISION MAKING

After completion of this course, students should be able to:

➤ Define Concept of Business analytics to explore, analyze the business problems.

➤ Describe the data exploring to find new patterns and relationships through mathematics and statistics.

➤ Explain Predictive analytics tools and techniques for the purpose of mutual dependence of various factors and groups.

➤ Analyze Application of analytics to various business functions and services.

➤ Understand Integration between analytics and business research for an effective and efficient decision making.

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M.B.A. - Semester – I - Paper Code – 18MBA104 – Paper - IV

MANAGERIAL COMMUNICATION

After completion of this course, students should be able to:

➤ Understand Concept of communication, communication skills and sensitize them to become successful managers.

➤ Explain Communication in business organizations to handle day-to-day managerial responsibilities.

➤ Describe Business correspondence, managerial writing and effective presentation skills.

➤ Evaluate Media management, meeting documentation and negotiation strategies.

➤ Analyze Communication networks, employment communications both manual and technology enabled.

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M.B.A. - Semester – I - Paper Code – 18MBA105 – Paper - V

LEGAL FRAMEWORK FOR BUSINESS

After completion of this course, students should be able to:

➤ Understand Indian Contract Act and its essentials.

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➢ Define Limited Liability Partnership Act, its conversion and financial disclosures.

➢ Explain Sale of Goods Act and the Negotiable Instruments Act.

➢ Analyze Companies Act and its amendments.

➢ Evaluate Cyber laws in India, Consumer Protect Act and the Competition Act.

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M.B.A. - Semester – I - Paper Code – 18MBA106 – Paper - VI
FINANCIAL STATEMENTS ANALYSIS AND REPORTING

After completion of this course, students should be able to:

➢ Define the Basic concepts and principles of Accounting and preparation of Journals, Ledgers, Trial balance and financial statements.

➢ Understanding on preparation and analysis of financial statements.

➢ Explain the issue of shares and preparation of company accounts.

➢ Evaluate the concepts of financial reporting and auditing, legal requirements, International Financial Reporting Standards and sustainability reporting.

➢ Analyze Cost management and Cost accounting techniques.

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M.B.A. - Semester – I - Paper Code – 18MBA107 – Paper - VII
BUSINESS ENVIRONMENT

After completion of this course, students should be able to:

➢ Understand Concept of environment, business environment and its components, regulatory bodies.

➢ Explain Indian economy and its participants.

➢ Evaluate Industrial plans and policies and their relevance to different sectors, competitiveness and to world economy.

➢ Analyze International and Globalization opportunities and challenges with its determinants.

➢ Evaluate the Agencies for sustainability and development of Indian business and the functioning of MNCs.

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National Level Workshop on OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES (Under Assistance of UGC Autonomous Grant) - 22nd November 2019. Faculty of M. B. A.
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M.B.A. - Semester – II - Paper Code – 18MBA201 – Paper - I

MARKETING MANAGEMENT

After completion of this course, students should be able to:

- ➢ Define Basic Marketing Concepts, Marketing environment and changing marketing practices.
- ➢ Understand Strategic marketing planning, Product life cycle and price setting.
- ➢ Describe Marketing communication, promotion decisions and IMC planning process.
- ➢ Evaluate Marketing channel system, Channel management and market logistic decisions.
- ➢ Analyze Marketing organization structures, marketing audit and relationship marketing.

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M.B.A. - Semester – II - Paper Code – 18MBA202 – Paper - II

HUMAN RESOURCE MANAGEMENT

After completion of this course, students should be able to:

- ➢ Define Fundamental concepts of HRM, Qualities and role of HR Manager and models of HRM.

- ➢ Understand Human Resource Planning, Recruitment and selection and placement.

- ➢ Describe Training Programmes and performance appraisal.

- ➢ Evaluate Promotion, Career planning, compensation management and employee welfare measures.

- ➢ Analyze Quality of work life, changing role of HR and HR audit.

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M.B.A. - Semester – II - Paper Code – 18MBA203 – Paper - III

FINANCIAL MANAGEMENT

After completion of this course, students should be able to:

- ➢ Describe Conceptual overview, financial decisions, financial planning and forecasting.

- ➢ Define financial leverage, cost of capital, measurement of cost of capital.

- ➢ Understand Components, determinants and theories of capital structure and capital budgeting.

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➢ Evaluate Concept of working capital, determinants and dividend policy and theories.

➢ Develop financial analysis through ratio analysis.

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M.B.A. - Semester – II - Paper Code – 18MBA204 – Paper - IV
OPERATIONS MANAGEMENT

After completion of this course, students should be able to:

➢ Understand operations, facilities location, layout design and world class manufacturing.

➢ Define Operations planning and control, scheduling, work design, work measurement and sampling.

➢ Describe Concept of maintenance management, waste management and technology management.

➢ Evaluate Materials management, purchase management, stores management and inventory.

➢ Analyze Statistical quality control, ISO standards, 6 Sigma and total quality management.

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M.B.A. - Semester – II - Paper Code – 18MBA205 – Paper - V
ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT

After completion of this course, students should be able to:

➢ Define Concept of Entrepreneur, types, growth, trends in women and rural entrepreneurship.

➢ Discuss Business opportunities, industrial analysis and preparing a business plan.

➢ Explain Preparation of Budget report, sources of finance and venture capital.

➢ Understand Concept of MSMEs, industrial sickness and export oriented units.

➢ Analyze the Role of commercial banks and other agencies to support entrepreneurs.

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M.B.A. - Semester – II - Paper Code – 18MBA206 – Paper - VI

MANAGEMENT INFORMATION SYSTEMS

After completion of this course, students should be able to:

➢ Understand information technology, computer hardware and cloud computing.

➢ Explain MIS planning and design and systems development life cycle.

➢ Define Concept of DBMS, Data warehousing and mining and Artificial Intelligence.

➢ Evaluate Application on ERP to the functions of management.

➢ Describe Digital Firm, Mobile Computing, BPO Management and IPRs to ITES.

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M.B.A. - Semester – II - Paper Code – 18MBA207 – Paper - VII

OPERATIONS RESEARCH

After completion of this course, students should be able to:

➢ Define Concept of Operations Research and application of OR models for problem solving.

➢ Understand Duality in Linear Programming and Project Management.

➢ Explain Transportation models and assignment problems.

➢ Describe Game theory and decision theory.

➢ Evaluate Queuing model, simulation and its application to management problems.

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M.B.A. - Semester – III - Paper Code – 18MBA301 – Paper - I

STRATEGIC MANAGEMENT

After completion of this course, students should be able to:

➢ Define Fundamental concepts of Strategy, Strategic Management and Strategic decision making.

➢ Understand Strategic analysis and choice through various tools and techniques to gain the distinctive competencies.

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Rajya Lakshmi, Mr. M. Bharat Kumar, T. Navya, Dept. Technician.

➢ Describe Resources allocation, relationship between strategy and various issues to confirm the best corporate level strategy.

➢ Evaluate Awareness on different growth and retrenchment strategies.

➢ Analyze Execution of strategy/strategies and the evaluation and control process.

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M.B.A. - Semester – III - Paper Code – 18MBA302 – Paper - II
PROJECT MANAGEMENT

After completion of this course, students should be able to:

➢ Define the fundamental concepts of Project, Project life cycle, Project appraisal and selection.

➢ Describe Demand forecasting techniques with the help of market survey and market feasibility.

➢ Understand Project technical feasibility through materials, location, layout, organization and different evaluation review techniques.

➢ Develop Project financial analysis, investment appraisal, revenue and cost estimations.

➢ Explain Project Management stages and Project abandonment aspects.

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M.B.A. - Semester – III - Paper Code – 18MBA303MKT – Paper - III
CONSUMER BEHAVIOUR & MARKETING RESEARCH

After completion of this course, students should be able to:

➢ Understand the concepts of Consumer, Consumer behaviour, Models of Consumer behaviour.

➢ Analyze Individual determinants of consumer behaviour.

➢ Describe Consumer decision making process and application to models of Consumer behaviour.

➢ Develop the concept of Marketing research, Process and the integration with different phases of business.

➢ Evaluate Application of marketing research, effectiveness and the ethical issues.

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M.B.A. - Semester – III - Paper Code – 18MBA306MKT– Paper - IV
SERVICES MARKETING

After completion of this course, students should be able to:

➢ Describe the concepts of services, services marketing, the trends and opportunities.

➢ Explain Consumer behavior of services, determinants, STP for services in competitive markets.

➢ Define the services marketing mix elements.

➢ Understand Customer satisfaction and service quality management with the available measuring tools.

➢ Analyze Service customer relationship, service recovery and service audit.

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M.B.A. - Semester – III - Paper Code – 18MBA303FIN– Paper - V
FINANCIAL INSTITUTIONS AND MARKETS

After completion of this course, students should be able to:

➢ Understand the concepts of Financial Institutions, Indian Banking System and the control mechanism.

➢ Explain the development banks and their functions and functioning.

➢ Describe International financing institutions with their objectives and functions.

➢ Define Basic concepts of financial markets, market system, intermediaries and their regulations.

➢ Evaluate different financial markets such as bond market, debt market, capital markets and money markets.

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M.B.A. - Semester – III - Paper Code – 18MBA305FIN– Paper -VI
SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT

After completion of this course, students should be able to:

➢ Define concepts in the field of investments, risk and techniques for measurement of risk.

➢ Describe valuation of shares and bonds through different scientific approaches.

➢ Explain Fundamental and technical analysis with their relevance in security/securities selection.

➢ Understand the concepts of portfolio and portfolio management tools and techniques.

➢ Evaluate Methods of portfolio performance in the context of Indian scenario.

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M.B.A. - Semester – III - Paper Code – 18MBA303HRM– Paper - V
HUMAN RESOURCE PLANNING

After completion of this course, students should be able to:

➢ Understand Human Resource Planning, Process for HRP and various approaches to HRP.

➢ Describe the HR forecasting, evaluating HR planning effectiveness and development of sample HR plan.

➢ Evaluate Development, engagement, driving factors of talent management and motives.

➢ Define the concepts of career, career management and lead for succession planning.

➢ Evaluate HR Accounting, Methods of HRA, HRIS and Impact of globalization.

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M.B.A. - Semester – III - Paper Code – 18MBA304HRM– Paper - VI
PERFORMANCE AND REWARD MANAGEMENT

After completion of this course, students should be able to:

➢ Understand the concepts of Performance, Performance management and the Role in Strategic planning.

➢ Define Performance appraisal system, Approaches, methods, symptoms and causes for poor performance.

➢ Describe Employee development plan, process for employee development plans through various techniques.

➢ Develop Reward system and the determinants for individual pay structure.

➢ Evaluate Compensation plan and systems in the organization and retirement benefits.

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M.B.A. - Semester – IV - Paper Code – 18MBA401– Paper - I
INTERNATIONAL BUSINESS

After completion of this course, students should be able to:

➢ Understand the fundamentals of International Business, International Business Environment and ethics in international business

➢ Define International Trade Theories, Trading Blocks and World Trade Organisation.

➢ Describe International Monetary System, Global Capital Market and Balance of payments.

➢ Develop Strategy and structure of International Business.

➢ Analyze International Business Operations

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M.B.A. - Semester – IV - Paper Code – 18MBA402– Paper - II
E-BUSINESS

After completion of this course, students should be able to:

➢ Define Basic concepts of E-Commerce and business models for e-commerce.

➢ Describe technologies of World Wide Web and strategies for website development.

➢ Understand E-Marketing and E-Commerce.

➢ Analyze Technology support to Customer Relations Management.

➢ Explain Electronic Payments Systems.

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M.B.A. - Semester – IV - Paper Code – 18MBA404MKT– Paper - III
SALES AND DISTRIBUTION MANAGEMENT

After completion of this course, students should be able to:

➢ Understand Concepts of Sales and Sales Management, Trends and challenges in Sales Management.

➢ Describe Sales forecasting, Design sales territories and sales meeting.

➢ Explain Sales force management.

➢ Evaluate the overview of marketing channels.

➢ Explain Logistics and supply chain management.

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M.B.A. - Semester – IV - Paper Code – 18MBA405MKT– Paper - IV
RETAIL MANAGEMENT

After completion of this course, students should be able to:

➢ Define fundamentals of Retailing, Theories of Retail development, Opportunities and challenges of Retailing.

➢ Describe Retail market strategy, Location Theories and Legal considerations.

➢ Understand Scope and process of Retail management.

➢ Develop Pricing and promotion of Retail management.

➢ Analyze Retail store management.

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M.B.A. - Semester – IV - Paper Code – 18MBA404HRM– Paper - V
STRATEGIC HRM

After completion of this course, students should be able to:

➢ Define the framework of SHRM, Approaches, Developing plans and strategies.

➢ Describe Strategic planning of SHRM.

➢ Understand SHRM Strategy implementation.

➢ Develop Recruitment and Retention strategies.

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➢ Evaluate the SHRM Evaluation process.

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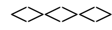
M.B.A. - Semester – IV - Paper Code – 18MBA406HRM– Paper - VI
STRESS MANAGEMENT

After completion of this course, students should be able to:

➢ Understand the concept of Stress, Symptoms for Stress and Model of Stress.

➢ Describe Causes of Frustration, conflict and pressure at work place and society.

➢ Develop Sources of managerial stress and decision making under stress.

➢ Analyze Consequences of stress.

➢ Evaluate Stress management techniques.

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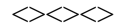
M.B.A. - Semester – IV - Paper Code – 18MBA404FIN– Paper - V
FINANCIAL DERIVATIVES

After completion of this course, students should be able to:

➢ Describe the Concept of financial derivatives, Derivatives market in India and abroad.

➢ Understand Classification of contracts

➢ Define Future markets, Future price spot and price trading.

➢ Analyze the concept of options, types and market participations and motivations.

➢ Develop the concept of Swaps, Valuation of Swaps and Swap pricing.

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M.B.A. - Semester – IV - Paper Code – 18MBA405– Paper - VI

<u>INTERNATIONAL FINANCIAL MANAGEMENT</u>

After completion of this course, students should be able to:

➢ Define the concept of MNCs and International Financial Management features, objectives and importance.

➢ Describe International Monetary System, Foreign Exchange Market and Global Financial Markets.

➢ Understand Management of Exposure and International Capital Budgeting.

➢ Explain International Portfolio Management and International Project Financing.

➢ Analyze International Working Capital management and International Taxation.

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The Learning Outcomes-Based Curriculum Framework (LOCF) for the Programs in M.C.A

The Learning Outcomes-based Curriculum Framework (LOCF) for the programs in M.C.A is intended to provide a broad framework to create an academic base that responds to the need of the students to Distinguish the basics of Computer Applications and its ever evolving nature of applications in explaining all the observed natural phenomenon as well as predicting the future applications to the new phenomenon with a global perspective.

MCA programme has been designed to prepare graduates for attaining the following program outcomes:

- ➢ An ability to identify, critically analyze, formulate and develop computer applications
- ➢ An ability to apply knowledge of mathematics and computer science in practice
- ➢ An ability to select modern computing tools and techniques and use them with ease
- ➢ An ability to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability
- ➢ An ability to function professionally with ethical responsibility as an individual as well as in multidisciplinary teams with positive attitude
- ➢ An ability to communicate effectively
- ➢ An ability to appreciate the importance of goal setting and to recognize the need for life-long learning
- ➢ Familiarize themselves with programming concepts, analysis and reporting systems
- ➢ Acquire leadership skills, Distinguish group and individual dynamics, and be able to work in teams
- ➢ Enhance oral and written communication skills
- ➢ Develop comprehensive problem solving and decision making skills

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P.G Department of Computer Applications
M.C.A - Semester – I - Paper Code – 18MCA101 – Paper – I
BASICS OF ICT

Upon successful completion of this course student is able to:

➢ Define different types of data storing, processing and various compression techniques.

➢ Outline the internal structure and mechanism of data storage devices and CPU. Functionality of different display devices. He / She can also distinguish different types of software (system, packaged and application), operating systems and programming languages.

➢ Define various types of computer networks and concepts of security (Cryptography, Digital signature and firewalls) which gives awareness of procedures and tools to protect the computer system from viruses.

➢ Compute numerical data using spread sheet text data with word processing applications. Knowledge on internet applications.

➢ Explain various types of information needed at various levels of management, E-Commerce and impacts of IT on society.

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M.C.A - Semester – I - Paper Code – 18MCA102 – Paper – II
PROGRAMMING AND PROBLEM SOLVING

Upon successful completion of this course student is able to:

➢ Provide details of his knowledge of C language.

➢ Develop logics which will help them to create programs, applications in C.

➢ Easily switch over to any other language in future.

➢ Identify tasks in which the numerical techniques learned are applicable and apply them to write programs, and hence use computers effectively to solve the task.

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M.C.A - Semester – I - Paper Code – 18MCA103 – Paper – III
COMPUTER ORGANIZATION

Upon successful completion of this course student is able to:
  - ➢ Identify, Distinguish and apply different number systems and codes.

  - ➢ Distinguish the digital representation of data in a computer system.

  - ➢ Discriminate the general concepts in digital logic design, including logic elements, and their use in combinational and sequential logic circuit design.

  - ➢ Extricate computer arithmetic formulate and solve problems, Distinguish the performance requirements of systems

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M.C.A - Semester – I - Paper Code – 18MCA104 – Paper – IV
DISCRETE MATHEMATICAL STRUCTURES

Upon successful completion of this course student is able to:
  - ➢ Display his efficiency in handling with discrete structures.

  - ➢ Apply set theory and handling formal of notations of size, matching, ordering, and planarity.

  - ➢ Solve concrete combinational problems.

  - ➢ Deal with notations of mapping and via that notation ability to tackle various notations of infinity like countable, uncountable etc.

  - ➢ Use graphs as unifying theme of various combinational problems.

  - ➢ Apply combinational institutions in network theory, data structure and various other fields of science.

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M.C.A - Semester – I - Paper Code – 18MCA105 – Paper – V
ACCOUNTING & FINANCIAL MANAGEMENT

Upon successful completion of this course student is able:
  - ➢ To provide the basic concepts & principles of Accounting and preparation of journals, ledgers, trail balance and financial statements.

  - ➢ To facilitate the students about the Distinguishing on cost management and Cost. Accounting techniques, classification, Marginal costing and budgetary control.

➢ To enhance knowledge among the students on the standard costing, finance function, financial decision making.

➢ To create awareness on the concepts of financial analysis of financial statements.

➢ To impart the knowledge about the concept of working capital management.

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M.C.A - Semester – I - Paper Code – 18MCA106P – Practical – I
COMPUTER ORGANIZATION LAB

Upon successful completion of this course student is able to:
➢ Design logic gates and realization of OR,AND,NOT AND XOR Functions using universal gates

➢ Define and implement combinational circuits like half adder/full adder, MUX, DECODER.

➢ Design and implement sequential circuits like flip-flops, counters and shift registers.

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M.C.A - Semester – I - Paper Code – 18MCA107P – Practical – II
C PROGRAMMING LAB

Upon successful completion of this course student is able to:
➢ Analyze programming problems to choose when regular loops should be used and when recursion will produce a better program.

➢ Design and implement programs that use functions, arrays and pointers.

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M.C.A - Semester – I - Paper Code – 18MCA108
SEMINAR

Upon successful completion of this course student is able to:
➢ To effectively communicate by making an oral presentation.

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M.C.A - Semester – II - Paper Code – 18MCA201 – Paper – I
OPERATING SYSTEM

Upon successful completion of this course student is able to:
- Define the basic concepts of operating system, its functions and services.

- Express various views and management policies adopted by operating system as pertaining with Processes, Deadlock, memory, File and I/O operations.

- Compare the various algorithms and comment about performance of various algorithms used for Processes, Deadlock, memory, File and I/O operations.

- Knowledge of basic concepts towards Process Synchronization and related issues.

- Better Distinguishing on Protection & Security.

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M.C.A - Semester – II - Paper Code – 18MCA202 – Paper – II
OBJECT ORIENTED PROGRAMMING SYSTEMS

Upon successful completion of this course student is able to:
- Distinguish the concept and underlying principles of Object-Oriented Programming.

- Discriminate how object-oriented concepts are incorporated into the Java programming language.

- Knowledge of the structure and model of the Java programming language

- Advance efficient Java applets and applications using OOP concept

- Develop software in the Java programming language.

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M.C.A - Semester – II - Paper Code – 18MCA203 – Paper – III
DATA STRUCTURES

Upon successful completion of this course student is able to:
- Implement mathematical functions and analyze algorithms and algorithm correctness.

- Apply stings and Arrays.

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➢ Describe stack, queue and linked list operations, tree concepts.

➢ Have knowledge of Graphs and Sorting and Searching Techniques.

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M.C.A - Semester – II - Paper Code – 18MCA204 – Paper – IV
COMPUTER NETWORKS

Upon successful completion of this course student is able to:
➢ Label the functions of each layer in OSI and TCP/IP model.

➢ Classify the routing protocols and analyze how to assign the IP addresses for the given network.

➢ Define the functions of data link layer and explain the protocols.

➢ Explain the types of transmission media with real time applications.

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M.C.A - Semester – II - Paper Code – 18MCA205 – Paper – V
PROBABILITY & STATISTICS

Upon successful completion of this course student is able to:
➢ Use basic concepts in probability theory and statistical analysis.

➢ Learn the fundamental theory of distribution of random variables, the basic theory and techniques of parameter estimation and tests of hypotheses.

➢ Derive Small Sample Tests and applications of t, F distribution with life examples. Large sample test, critical values, Bi variate data, Concept of correlation & Regression. To fit linear regression lines, multiple correlation coefficient.

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M.C.A - Semester – II - Paper Code – 18MCA206P – Practical – I
DATA STRUCTURES LAB USING JAVA

Course Outcomes:

Upon successful completion of this course student is able to:
➢ Implement Object Oriented programming concept for developing skills of logic building activity.

➢ Prove how to achieve reusability using inheritance, interfaces and packages.

➢ Demonstrate and use of different exception handling mechanisms and concept of multithreading.

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M.C.A - Semester – II - Paper Code – 18MCA207P – Practical – II
OPERATING SYSTEM & COMPUTER NETWORKS LAB

Upon successful completion of this course student is able to:
➢ Demonstrate the knowledge of Systems Programming and Operating Systems.

➢ Compare and analyze the different implementation approach of system programming and operating system abstractions.

➢ Implement operating systems scheduling algorithms.

➢ Use network Programming to obtain IP address, Machine Name and communications etc.

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M.C.A - Semester – II - Paper Code – 18MCA208
SEMINAR

Course Outcomes:

Upon successful completion of this course student is able to:

➢ Effectively communicate by making a power point presentation.

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M.C.A - Semester – III - Paper Code – 18MCA301 – Paper – I
DESIGN AND ANALYSIS OF ALGORITHMS

Upon successful completion of this course student is able to:
➢ Analyze the asymptotic performance of algorithms.

➢ Demonstrate a familiarity with major algorithms and data structures.

➢ Apply important algorithmic design paradigms and methods of analysis.

➢ Develop algorithms for sorting, searching, insertion and matching.

➢ Acquire knowledge in NP Hard and complete problem.

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M.C.A - Semester – III - Paper Code – 18MCA302 – Paper – II
DATABASE MANAGEMENT SYSTEMS

Upon successful completion of this course, students should be able to:
- Describe the fundamental elements of relational database management systems.
- Design ER-models to represent simple database application scenarios.
- Convert the ER-model to relational tables, populate relational database and formulate SQL queries on data.
- Improve the database design by normalization.
- Distinguish the properties of transaction management and recovery management.

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M.C.A - Semester – III - Paper Code – 18MCA303 – Paper – III
WEB TECHNOLOGIES

Upon successful completion of this course, students should be able to:
- Use concepts of WWW, XHTML tags and CSS to develop web formatted pages.
- Design dynamic web pages and develop the modern web pages XML with different layouts as per applications.
- Advance Rich Internet Applications (Using Ajax) and install web servers (IIS and Apache).
- Develop simple applications using server side scripting such as CGI, PHP and JSF to generate the web pages dynamically using the database connectivity.

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M.C.A - Semester – III - Paper Code – 18MCA304 – Paper – IV
OBJECT ORIENTED SOFTWARE ENGINEERING

Upon successful completion of this course, students should be able to:
- Plan a software engineering process life cycle.
- Able to elicit, analyze and specify, design and develop the code.

- ➢ Develop the code from the design and effectively apply relevant standards and perform testing, and quality management and practice.

- ➢ Use modern engineering tools necessary for software project management, time management and software reuse.

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M.C.A - Semester – III - Paper Code – 18MCA305 – Paper – V
OPERATIONS RESEARCH

Upon successful completion of this course, students should be able to:
- ➢ Use quantitative methods and techniques for effective decisions–making.

- ➢ Apply model formulation and applications that are used in solving business decision problems.

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M.C.A - Semester – III - Paper Code – 18MCA306P – Practical – I
DBMS LAB

Upon successful completion of this course, students should be able to:
- ➢ Construct problem definition statements for real life applications and implement a database for the same.

- ➢ Write queries in SQL to retrieve any type of information from a data base.

- ➢ Create and populate a RDBMS, using SQL.

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M.C.A - Semester – III - Paper Code – 18MCA307P – Practical – II
WEB TECHNOLOGIES LAB

Upon successful completion of this course, students should be able to:
- ➢ Implement dynamic web pages with validation using JavaScript objects by applying different event handling mechanism.

- ➢ Build well-formed XML Document and implement Web Service using Java.

- ➢ Use AJAX Programming Technique to develop RIA.

- ➢ Develop simple web application using server side PHP programing and Database Connectivity using MySQL.

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M.C.A - Semester – III - Paper Code – 18MCA308P – Practical – III
MINI PROJECT

Upon successful completion of this course, students should be able to.
- ➢ Undertake short research projects in a team under the direction of members of the faculty.
- ➢ Prepare detailed report describing the project and results.
- ➢ Undertake fabrication work of new experimental set up/devices or develop software packages.

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M.C.A - Semester – IV - Paper Code – 18MCA401 – Paper – I
DATA MINING TECHNIQUES

Upon successful completion of this course, students should be able to:
- ➢ Distinguish the basics of data warehouse and Data Mining concepts, functionalities and Patterns.
- ➢ Construct the data warehouse, its techniques and concepts.
- ➢ Classify the data by implementing various algorithms.

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M.C.A - Semester – IV - Paper Code – 18MCA402 – Paper – II
MOBILE COMPUTING

Upon successful completion of this course, students should be able to:
- ➢ Distinguish the basic concepts of worldwide networks, wireless transmission and generations of Mobile systems.
- ➢ Perceive the architecture and common technologies for mobile communication.
- ➢ Grasp the IP network protocols and methods used in IP routing of packets.
- ➢ Apprehend the working of Mobile IP.
- ➢ Gain Knowledge regarding the NGNs, operating systems, application development using WML, XML in Mobiles.

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M.C.A - Semester – IV - Paper Code – 18MCA403 – Paper – III
CRYPTOGRAPHY AND NETWORK SECURITY

Upon successful completion of this course, students should be able to:
- Identify information security goals, classical encryption techniques and decryption techniques to solve problems related to confidentiality and authentication
- Apply different digital signature algorithms to achieve authentication and create secure applications.
- Outline network security basics, analyze different attacks on networks and evaluate the performance of firewalls and security protocols like SSL, IPSec, and PGP.
- Use the knowledge of cryptographic utilities and authentication mechanisms to design secure applications.

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M.C.A - Semester – IV - Paper Code – 18MCA404 – Paper – IV
CLOUD COMPUTING

Upon successful completion of this course, students should be able to:
- Articulate the main concepts, key technologies, strengths, limitations and issues of virtualization.
- Distinguish the open source architectures and services of cloud computing.
- Develop and deploy cloud applications using popular cloud platforms.
- Explore the risks, consequences and costs of cloud computing and Distinguish the implementations of AAA model in the cloud.

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M.C.A - Semester – IV - Paper Code – 18MCA405.1 – Paper – V
ADVANCED DATABASE MANAGEMENT SYSTEMS

Upon successful completion of this course, students should be able to:
- Track the algorithms for query processing and optimization.
- Learn the concepts of database system architecture and system catalog.
- Follow distributed database concepts and advanced concepts of design.
- Know OODBMS standards & emerging database technologies & applications.

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M.C.A - Semester – IV - Paper Code – 18MCA405.2 – Paper – V
TCP/IP

Upon successful completion of this course, students should be able to:
- Distinguish the TCP/IP and OSI models and it importance.
- Explain DNS, HTTP, E-mail, Telnet and FTP protocols in detail.
- Differentiate Internet protocol with routing algorithms and IPV4 and IPV6.
- Explain the role of TCP protocol and various congestion avoidance techniques.
- Define basic CISCO router functionality and Precautions while, selecting the router accessories and simple configuration.

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M.C.A - Semester – IV - Paper Code – 18MCA405.3 – Paper – V
SOFTWARE TESTING

Upon successful completion of this course, students should be able to:
- Investigate the reason for bugs and analyze the principles in software testing to prevent and remove bugs.
- Generate test cases and apply software testing techniques.
- Identify the inputs and deliverables of the testing.

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M.C.A - Semester – IV - Paper Code – 18MCA405.4 – Paper – V
DISTRIBUTED OPERATING SYSTEMS

Upon successful completion of this course, students should be able to:
- Distinguish the processor that frequently relinquishes control and must depend on the processor to regain control.
- Explain difference between application programs and the hardware.
- Recognize procedures that enable a group of people to use a computer system.
- Control the execution of application programs.
- Use an interface between applications and hardware

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M.C.A - Semester – IV - Paper Code – 18MCA405.5 – Paper – V
<u>ARTIFICIAL INTELLIGENCE</u>

Upon successful completion of this course, students should be able to:

➢ Demonstrate knowledge of the building blocks of AI as presented in terms of intelligent agents

➢ Analyze and formalize the problem as a state space, graph, design heuristics and select amongst different search or game based techniques to solve them.

➢ Formulate and solve problems with uncertain information using Bayesian approaches.

➢ Apply concept Natural Language processing to problems leading to Distinguishing of cognitive computing.

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M.C.A - Semester – IV - Paper Code – 18MCA405.6 – Paper – V
<u>THEORY OF COMPUTATION</u>

Upon successful completion of this course, students should be able to:

➢ Explain different types of machine structure for regular languages.

➢ Distinguish the laws and properties of Regular expressions and Regular languages.

➢ Describe the Grammars and PDA's.

➢ Interpret the knowledge of CFL and Turing machine Un-decidable problems.

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M.C.A - Semester – IV - Paper Code – 18MCA406P – Practical – I
<u>DATA MINING LAB</u>

Upon successful completion of this course, students should be able to:

➢ Apply mining techniques for realistic data.

➢ Implement the classification and clustering techniques on various types of data set.

➢ Distinguish how to import and export CSV files.

➢ To develop and visualization of data mining algorithms.

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M.C.A - Semester – IV - Paper Code – 18MCA407P – Practical – II
SOFTWARE ENGINEERING LAB

Upon successful completion of this course, students should be able to:
 ➢ Sketch a Modeling with UML for project development.

 ➢ Apply different modeling techniques for project.

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M.C.A - Semester – IV - Paper Code – 18MCA408P – Practical – III
TESTING TOOLS LAB

Upon successful completion of this course, students should be able to:
 ➢ Design test planning.

 ➢ Apply the software testing techniques in commercial environment.

 ➢ Use practical knowledge of a variety of ways to test software.

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M.C.A - Semester – V - Paper Code – 18MCA501 – Paper – I

DATA SCIENCES

Upon successful completion of this course, students should be able to:
 ➢ Explain the motivation for big data systems and identify the main sources of Big Data in the real world.

 ➢ Demonstrate an ability to use frameworks like Hadoop, NOSQL to efficiently store retrieve and process Big Data for Analytics.

 ➢ Implement several Data Intensive tasks using the Map Reduce Paradigm.

 ➢ Apply several newer algorithms for Clustering Classifying and finding associations in Big Data

 ➢ Design algorithms to analyze big data like streams, Web Graphs and Social Media data.

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M.C.A - Semester – V - Paper Code – 18MCA502 – Paper – II
DOT NET PROGRAMMING

Upon successful completion of this course, students should be able to:
 ➢ Explain the concepts of different languages such as VB,C#,ASP.NET and ADO.NET

 ➢ Develop different types of applications.

 ➢ Design Web applications that can access data from data base.

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M.C.A - Semester – V - Paper Code – 18MCA503 – Paper – III
PRINCIPLES OF PROGRAMMING LANGUAGES

Upon successful completion of this course, students should be able to:
➢ Illustrate languages and program behavior, precisely reason about state, effects and   mutation.

➢ Demonstrate about the mechanisms for abstraction and modularization.

➢ Develop programs that implement various formalisms, mechanisms and language features.

➢ Generalize open questions about advanced language features and reflect critically.

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M.C.A - Semester – V - Paper Code – 18MCA504.1 – Paper – IV
DISTRIBUTED DATABASES

Upon successful completion of this course, students should be able to:
➢ Apply the Introductory Distributed Data base Concepts and its Structures

➢ Describe terms related to Distributed object database design and management.

➢ Implement the Transaction Management and query Processing techniques in DDBMS.

➢ Set up the importance and application of emerging data base technology.

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M.C.A - Semester – V - Paper Code – 18MCA504.2 – Paper – IV
MOBILE ADHOC NETWORKS

Upon successful completion of this course, students should be able to:

➢ Describe the Unique issues in ad-hoc / Sensor Networks.

➢ Define Current Technology Trends for the implementation and deployment of wire-less ad-hoc Networks

➢ Hypothesize the Challenges in Designing MAC, Routing and Transport Protocols for wireless ad-hoc Networks

➢ Discuss the challenges in designing routing and transport protocols for wireless ad-hoc networks

➢ Comprehend the various sensor network platforms, tools and applications.

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M.C.A - Semester – V - Paper Code – 18MCA504.3 – Paper – IV
SOFTWARE DESIGN PATTERNS

Upon successful completion of this course, students should be able to:
➢ Identify key entities and relationship in the problem domain.

➢ Analyze a software development and express its essence succinctly and precisely

➢ Design a module to solve a problem and evaluate alternatives.

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M.C.A - Semester – V - Paper Code – 18MCA504.4 – Paper – IV
NEURAL NETWORKS

Upon successful completion of this course, students should be able to:
➢ Describe the learning and Generalization issues in Neural Computation.

➢ Distinguish the Basic idea behind most common learning Algorithms for multi layer Perceptions radical basic function networks and Kohonen self-organizing maps

➢ Implement Common learning algorithms using an existing package.

➢ Apply Neural Networks to Classification and reorganization Problems.

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M.C.A - Semester – V - Paper Code – 18MCA504.5 – Paper – IV
IMAGE PROCESSING

Upon successful completion of this course, students should be able to:
➢ Identify the fundamental concepts of image.

➢ Explain different Image enhancement techniques.

➢ Distinguish and review image transforms.

> ➢ Analyze the basic algorithms used for image processing & image compression with morphological image processing.

> ➢ Contrast Image Segmentation and Representation.

> ➢ Design & Synthesize Color image processing and its real world applications.

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M.C.A - Semester – V - Paper Code – 18MCA504.6 – Paper – IV
COMPILER DESIGN

Upon successful completion of this course, students should be able to:
> ➢ Identify the basics of compiler design and apply for real time applications.

> ➢ Comparison of different translation languages.

> ➢ Predict the importance of code optimization.

> ➢ Define compiler generation tools and techniques.

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M.C.A - Semester – V - Paper Code – 18MCA505.1 – Paper – V
EMBEDDED SYSTEMS

Upon successful completion of this course, students should be able to:
> ➢ Explain different challenges in designing an embedded system.

> ➢ Design custom single, optimizing and general purpose processors.

> ➢ Describe Universal Asynchronous Receiver/ Transmitter.

> ➢ Explain microprocessor interfacing, arbitration methods, interrupts and semaphores.

> ➢ Develop hardware software co-design aspects in embedded systems.

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M.C.A - Semester – V - Paper Code – 18MCA505.2 – Paper – V
INFORMATION SYSTEMS AUDITING

Upon successful completion of this course, students should be able to:
> ➢ Illustrate the fundamental concepts of information systems auditing and IT applications.

> ➢ Identify the security controls in organization.

> ➤ Describe the trend of computer security threats and remedies.

> ➤ Apply physical, logical and operational security controls.

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M.C.A - Semester – V - Paper Code – 18MCA505.3 – Paper – V
INTERNET OF THINGS

Upon successful completion of this course, students should be able to:
> ➤ Apply the concepts of IOT in different applications.

> ➤ Identify the different technology

> ➤ Analysis and evaluate protocols used in IOT and data received through sensors.

> ➤ Design and develop smart city in IOT.

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M.C.A - Semester – V - Paper Code – 18MCA505.5 – Paper – V
SIMULATION AND ANALYSIS

Upon successful completion of this course, students should be able to:
> ➤ Define basic concepts in modeling and simulations

> ➤ Identify various simulation models.

> ➤ Construct a model for a given set of data and motivate its validity.

> ➤ Analyze output data produced by a model and test validity of the model.

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M.C.A - Semester – V - Paper Code – 18MCA506P – Practical – I
DOT NET PROGRAMMING LAB

Upon successful completion of this course, students should be able to:
> ➤ Develop different types of applications.

> ➤ Design Web applications that can access data from data base.

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M.C.A - Semester – V - Paper Code – 18MCA507P – Practical – II
<u>DATA SCIENCES LAB</u>

Upon successful completion of this course, students should be able to:
- ➢ Explain the processing and storing huge volumes of data by using MAPREDUCE and HDFS.

- ➢ Construct map reduce programs by using various data sets.

- ➢ Create files and directories in local file system.

- ➢ Run PIG, HIVE tables and perform various queries on tables.

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M.C.A - Semester – V - Paper Code – 18MCA508P
<u>TECHNICAL REPORT WRITING</u>

Upon successful completion of this course, students should be able to:

- ➢ Study research papers for Distinguishing of a new field, in the absence of a textbook, to summarize and review them.

- ➢ Impart skills in preparing detailed report describing the project and results.

- ➢ Effectively communicate by making an oral presentation before an evaluation committee

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M.C.A - Semester – VI - Paper Code – 18MCA601
<u>PROJECT WORK</u>

Upon successful completion of this course, students should be able to:
- ➢ Analyze, design and implement a software project using SDLC model.

- ➢ Work as a team and to focus on getting a working project done with in a stipulated time.

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ATTAINMENT OF PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes) in Post Graduate Degree in Commerce

The Post Graduate Degree of Commerce provides students with the knowledge, tools of analysis and skills with which to understand and participate in the modern business and economics world, to prepare them to achieve success in their professional careers.

Post-Graduates of this degree will be knowledgeable across the core requirements of the degree. They will be able to:

➢ Demonstrate knowledge of key concepts underlying quantitative decision analysis.
➢ Apply statistical skills necessary for analysis of a range of problems in economics, actuarial studies, accounting, marketing, management and finance.
➢ Demonstrate knowledge of the theories, concepts and findings of the specializations.
➢ Analyze and Compare commerce / business issues in the international contexts.
➢ Evaluate national and international debates and discussions on economic, commercial, and business issues.

They will have the capacity to:

➢ Work collaboratively and productively in groups.
➢ Apply critical and analytical skills and methods to the identification, evaluation and resolution of complex problems.
➢ Engage confidently in self-directed study and research and be effective decision makers.
➢ Communicate ideas effectively in both written and oral formats.
➢ Operate effectively in multicultural and diverse environments.
➢ Effectively use information from diverse sources.
➢ Be proficient in the use of appropriate information technologies.
➢ Critically evaluate new ideas, research findings, methodologies and theoretical frameworks in a specialized field of study.
➢ Recognize and understand the ethical responsibilities of individuals and organizations in society.
➢ Strategic and critical thinking in relation to business and commerce related issues.
➢ Skilled in the use of computer systems and software used in commerce and business through practical assignments, exercises and demonstrations.

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Programme and Course Outcomes for M.Com.

I Year M. Com. Programme - Semester – I - Paper Code – 18 COM 101

BUSINESS MANAGEMENT

Students undergoing this course will be able to:

- ➢ Define concepts, principles, & social responsibilities of business management.
- ➢ Explain decision making - Decision Tree Analysis of management.
- ➢ Summarise departmentation, delegation and de-centralization of line and staff.
- ➢ Classify staffing, directing and EDP's.
- ➢ Apply motivation - Leadership skills and styles, communication skills and process.

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I Year M. Com. Programme - Semester – I - Paper Code – 18 COM 102

BUSINESS ECONOMICS

On completion of this course the student will be able to:

- ➢ Define fundamental concepts of Business Economics and Business goals.
- ➢ Describe Consumer equilibrium - Demand forecasting methods.
- ➢ Compute firm's cost analysis, production and cost function - scale and proportions.
- ➢ Construct different market structures conditions.
- ➢ Compare pricing practices and objectives of strategy of business.

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I Year M. Com. Programme - Semester – I - Paper Code – 18 COM 103

BUSINESS ENVIRONMENT

On completion of this course the student will be able to:

- ➢ Develop environment components, techniques of international business economic systems.
- ➢ Illustrate environment achievements with the industrial policy and economic reforms.
- ➢ Categorize political institutions and various Acts and changing dimensions.
- ➢ Apply technological environment and social audit.
- ➢ Compute international environment of foreign collaborations of trade policies.

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I Year M. Com. Programme - Semester – I - Paper Code – 18 COM 104
ENTREPRENEURSHIP DEVELOPMENT

On completion of this course the student will be able to:

➢ Define concepts of Entrepreneurship, women entrepreneurs and specific management skills.

➢ Apply idea generation and opportunity recognitions of various sources and process.

➢ Create awareness on project report and project appraisal.

➢ Review small business enterprises of various central and state level.

➢ Interpret government policy and Taxation benefits.

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I Year M. Com. Programme - Semester – I - Paper Code – 18 COM 105
INFORMATION TECHNOLOGY FOR BUSINESS

On completion of this course the student will be able to:

➢ Define Concepts of IT in business environment, structures of IT support.

➢ Choose IT infrastructure with computer software and network communications of internet systems.

➢ Operate Information systems and E- commerce in IT supply chain management.

➢ Develop Data knowledge organizational decision support.

➢ Demonstrate execution of strategic / protecting and implementing IT systems.

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I Year M. Com. Programme - Semester – I - Paper Code – 18 COM 106
QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

On completion of this course the student will be able to:

➢ Develop concepts of probability, conditional probability of applications.

➢ Employ knowledge about theoretical distributions, properties and applications.

➢ Evaluate testing of Hypothesis and deviations.

➢ Demonstrate correlation and regression of variables.

➢ Express operations search of graphical solutions and linear programming.

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I Year M. Com. Programme - Semester – II - Paper Code – 18 COM 201

BUSINESS LAWS

On completion of this course the student will be able to:

- ➢ Outline concepts of companies' shares, debenture and prevention of mismanagement.
- ➢ Interpret Depositories and money laundering acts.
- ➢ Explain consumer, competition and environment acts.
- ➢ Give explanation about foreign exchange management and IT acts.
- ➢ Sketch different corporate and business powers and organization.

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I Year M. Com. Programme - Semester – II - Paper Code – 18 COM 202

E-COMMERCE

On completion of this course the student will be able to:

- ➢ Illustrate Concepts and business models of E-commerce.
- ➢ Define different technologies - objective strategies for web site development.
- ➢ Explain E-marketing and advertisements strategies.
- ➢ Describe CRM with capabilities of E-supply chain.
- ➢ Analyse E-commerce payment systems with different E-payment and cashless economy.

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I Year M. Com. Programme - Semester – II - Paper Code – 18 COM 203

FINANCIAL MANAGEMENT

On completion of this course the student will be able to:

- ➢ Define concepts of financial management in modern business organizations.
- ➢ State investment and capital budgeting process of different cash flow methods.
- ➢ Interpret financial decisions and types of leverages with capital structure determinants.
- ➢ Discriminate dividend decisions and various dividend theories.
- ➢ List out working capital, inventory, cash and receivables management.

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I Year M. Com. Programme - Semester – II - Paper Code – 18 COM 204
HUMAN RESOURCE MANAGEMENT

On completion of this course the student will be able to:
- ➢ Summarize fundamental concepts of HR Manager Qualities and role of HR manager.
- ➢ Sketch HR planning, process of recruitment - placement and promotions.
- ➢ Describe employee training methods - evaluation of training development programs.
- ➢ Define performance appraisal - scope and significance of better career planning.
- ➢ Assess wage and salary administration - employee quality of work life.

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I Year M. Com. Programme - Semester – II - Paper Code – 18 COM 205
MARKETING MANAGEMENT

On completion of this course the student will be able to:
- ➢ Define the fundamental concepts of marketing, and marketing environment.
- ➢ Describe Consumer behavior - market segmentation, targeting and positioning.
- ➢ Evaluate product planning, product life cycle.
- ➢ Explain different pricing and distribution methods and strategies.
- ➢ Demonstrate promotional activities like direct marketing, web marketing.

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I Year M. Com. Programme - Semester – II - Paper Code – 18 COM 206
RESEARCH METHODS AD BUSINESS ANALYTICS

On completion of this course the student will be able to:
- ➢ Define fundamental concepts of research methodology, design and objectives.
- ➢ Explain data sample methods of surveys and techniques.
- ➢ Show tabulation, data analysis and SPSS applications.
- ➢ Construct multivariate analysis of advanced techniques of report writing.
- ➢ Critique execution of business analytics and Data ware housing.

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II Year M. Com. Programme - Semester – III - Paper Code – 18 COM 301
FINANCIAL ACCOUNTING AND PACKAGES

By the end of this course the student will able to:

➢ Explain fundamental concepts of accounting, cost accounting and its objectives.

➢ Prepare income statements, bank reconciliation statements and inventory valuation.

➢ Compute financial analysis, ratio analysis and funds flow.

➢ Interpret Management accounting - CVP analysis and variance analysis.

➢ Use accounting packages.

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II Year M. Com. Programme - Semester – III - Paper Code – 18 COM 302
BUSINESS COMMUNICATION

On completion of this course the student will be able to:

➢ Describe concepts of business & semiformal correspondence, functional language.

➢ Apply functional language.

➢ Identify and utilize business presentation of numerical data with oral and written conventional.

➢ Design business report of presenting and describing company information.

➢ Interpret feedback and evolution of functional language.

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II Year M. Com. Programme - Semester – III - Paper Code – 18 COM 303
CORPORATE ACCOUNTING

On completion of this course the student will be able to:

➢ Practice concepts of corporate accounting and financial statement of analysis.

➢ Forecast shares and fundamental analysis of different equity shares.

- ➤ Apply financial reporting and improving value added statements.
- ➤ Consolidate financial statements of profit and loss account.
- ➤ Interpret new trends in accounting and social responsibility accounting etc.

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II Year M. Com. Programme - Semester – III - Paper Code – 18 COM 304
DIRECT TAXES

On completion of this course the student will learn the skills to:

- ➤ Utilize concepts of income tax Act 1961, agriculture income and making of income exempt from U/S10.
- ➤ Assess capital gains, salaries incomes from individuals.
- ➤ Apply gross total income and tax liability.
- ➤ Identify assessment of individuals, association of persons and companies.
- ➤ Outline tax administration, recovery of tax, revisions.

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II Year M. Com. Programme - Semester – III - Paper Code – 18 COM 305
ADVANCED BANKING

On completion of this course the student will learn the skills to:

- ➤ Utilize Central banking - credit control techniques with commercial banks.
- ➤ Analyze Structure of Commercial Banking and its Development.
- ➤ Computer theories of asset management and development of commercial banks.
- ➤ Express monitory and fiscal policies.
- ➤ Outline technological advancement in banking sector.

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II Year M. Com. Programme - Semester – III - Paper Code – 18 COM 306
INSURANCE AND RISK MANAGEMENT

On completion of this course the student will learn the skills to:

- ➤ Explain concepts of risk management process, techniques to selecting the risk identification.
- ➤ Evaluate commercial and property insurance.

- ➢ Describe personal risk management applications.
- ➢ Estimate employee benefits and estate planning.
- ➢ Interpret IRDA policies and insurance intermediaries.

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II Year M. Com. Programme - Semester – IV - Paper Code – 18 COM 401

INDIAN FINANCIAL SYSTEM

On completion of this course the student will learn the skills to:
- ➢ Describe capital Markets, Money Markets and Secondary Markets operations.
- ➢ Estimate frame work of financial Services and Merchant Banking in India.
- ➢ Compute growth of venture capital in India.
- ➢ Analyze Credit Rating and Debit Rating system.
- ➢ Outline concept of Mutual Funds.

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II Year M. Com. Programme - Semester – IV - Paper Code – 18 COM 402

INTERNATIONAL BUSINESS

On completion of this course the student will learn the skills to:
- ➢ Describe concept of International Business.
- ➢ Define International Trade Regulatory Frame work.
- ➢ Classify international Financial Frame work - balance of payments.
- ➢ Recognise International Economics Agencies and Agreements.
- ➢ Categorize designing Global Organization Structure.

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II Year M. Com. Programme - Semester – IV - Paper Code – 18 COM 403

E - BANKING

On completion of this course the student will learn the skills to:
- ➢ Apply Information Technology and its Trends.
- ➢ Describe electronic Fund Management.
- ➢ Illustrate electronic Commerce and Banking.
- ➢ Construct security and Control Systems.
- ➢ Work out planning and implementation of information System.

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II Year M. Com. Programme - Semester – IV - Paper Code – 18 COM 404
INTERNATIONAL BANKING

On completion of this course the student will learn the skills to:
- ➢ Explain Global Trends and developments in International Banking.
- ➢ Describe International Financial Centers.
- ➢ Use Investment Banking.
- ➢ Interpret International Financial Institutions.
- ➢ Evaluate Regulatory Frame work in India.

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II Year M. Com. Programme - Semester – IV - Paper Code – 18 COM 405
GENERAL INSURANCE

On completion of this course the student will learn the skills to:
- ➢ Define Risk Management and Insurance.
- ➢ Describe Principles of Insurance.
- ➢ Explain Property Loss Exposures and General Insurance Coverage.
- ➢ Suggest Automobile Insurance.
- ➢ Apply Rate-Making in General Insurance.

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II Year M. Com. Programme - Semester – IV - Paper Code – 18 COM 405
LIFE INSURANCE

On completion of this course the student will learn the skills to:
- ➢ Give examples of Managing Personal Risks.
- ➢ Explain Life insurance Products and Uses.
- ➢ Use Life Insurance Contracts.
- ➢ Access Health Insurance and Employee Benefits.

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<u>PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes)</u>

<u>M.Sc. Mathematics</u>

The Learning Outcomes-based Curriculum Framework (LOCF) for the programs in Mathematics is intended to provide a broad framework to create an academic base that responds to the need of the students to understand the basics of Mathematics and its ever evolving nature of applications.

The qualification descriptors for an M.Sc. Mathematics Program may include the following.

The student should be able to Demonstrate:

(i) A systematic, extensive and coherent knowledge and understanding of the academic field of study as a whole and its applications including a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of Mathematics;

(ii) Procedural knowledge that creates different types of professionals related to the subject area of Mathematics, including research and development;

(iii) Skills in areas related to Mathematics, and an ability to use established techniques of analysis and enquiry within the area of specialization;

(iv) Comprehensive knowledge about techniques and skills required for identifying Mathematics problems and issues;

(v) Skills in identifying information needs, collection of relevant quantitative and/or qualitative data drawing on a wide range of sources, analysis and interpretation of data using methodologies as appropriate to the subject of Mathematics in the area of specialization;

(vi) Use knowledge, understanding and skills in Mathematics for critical assessment of a wide range of ideas and complex problems and issues relating to the various sub fields of Mathematics;

(vii) Communicate the results in the academic field of Mathematics in different contexts using the main concepts, constructs and techniques of the subject of Mathematics;

(viii) Address one's own learning needs relating to current and emerging areas of study relating to Mathematics, making use of research, development and professional materials as appropriate, including those related to new frontiers of knowledge in Mathematics;

(ix) Apply knowledge and understandings relating to Mathematics and skills to new/unfamiliar contexts and to identify and analyze problems and issues and seek solutions to real-life problems

(x) Demonstrate subject-related and transferable skills that are relevant to some of the Mathematics related jobs and employment opportunities.

Course Outcomes:

The course outcomes help the students to manage the resources effectively to the maximum extent. This creates path to improve the processes continually.

The course outcomes are measured by conducting class test after the completion of each unit, and by conducting 2 or more Internal Assessment exams in a semester. The achievement of students is also measured by keeping surprise test and asking spontaneous questions during the lecture.

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PG Department of Mathematics - Programme and Course Outcomes
I Year M. Sc. Programme – Under CBCS
Semester - I - Paper – I Paper code-18MAT101

ALGEBRA

Students undergoing this course will be able to:

- Explain Group Theory and its applications.
- Describe Sylow's theorem.
- Discuss Ring Theory and its applications.
- Define Euclidean Ring and its properties.
- Classify Vector Spaces.

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Semester - I - Paper – II, Paper code-18MAT102

REAL ANALYSIS-I

Students undergoing this course will be able to:

- Explain Continuity, Monotone Functions.
- Evaluate Differentiation, L Hospital's Rule, Taylor's Theorem.
- Discuss Riemann Stieltjes Integral, Integration of Differentiation, Rectifiable Curves.
- Illustrate Sequences and Series of Functions.
- Apply Stone Weistrass Theorem in other fields.

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Semester - I - Paper – III, Paper code-18MAT103

ORDINARY DIFFERENTIAL EQUATIONS

Students undergoing this course will be able to:

- Solve Second Order Linear Equations.
- Practice Power Series Solutions and Special Functions.
- Apply Gauss's Hyper Geometric Equations, Successive Approximations, Picards Theorem in various problems .
- State Bessels and Gamma Functions.
- Formulate Laplace Transforms.

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Semester - I - Paper – IV, Paper code-18MAT104
<u>TOPOLOGY</u>

Students undergoing this course will be able to:

- ➢ Explain Metric Spaces and its extensions.
- ➢ Construct Topological Spaces and its properties.
- ➢ Describe Compactness and its applications.
- ➢ Analyse Separation.
- ➢ Compare Connectedness and its compliments.

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Semester - I - Paper – V, Paper code-18MAT105
<u>DISCRETE MATHEMATICS</u>

Students undergoing this course will be able to:

- ➢ Solve Mathematical Induction, Matrices, Logic, Quantifiers.
- ➢ Design Finite Machines.
- ➢ Explain Lattices.
- ➢ Construct Boolean Polynomials.
- ➢ Use applications of Switching Circuits.

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Semester - II - Paper – I, Paper code-18MAT201
<u>GALOIS THEORY</u>

Students undergoing this course will be able to:

- ➢ Define Modules and its extensions.
- ➢ Analyze Algebraic Extensions of fields.
- ➢ Illustrate Normal and Separable Extensions.
- ➢ Classify Fundamental Theorems.
- ➢ Make use of applications of Galois Theory to Classical Problems.

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Semester - II - Paper – II , Paper code-18MAT202

REAL ANALYSIS-II

Students undergoing this course will be able to:

➢ Explain Power Series, Exponential and Logarithmic Functions, Trigonometric Functions.
➢ Solve Linear Transformations, Differentiation, Contraction Principle.
➢ Describe Inverse and Implicit Function Theorems, Rank Theorem, Determinants.
➢ Calculate Integration of Differential Forms.
➢ Summarize Simplexes and Chains, Stoke's Theorem, Closed and Exact forms.

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Semester - II - Paper – III, , Paper code-18MAT203

PARTIAL DIFFERENTIAL EQUATIONS

Students undergoing this course will be able to:

➢ Illustrate First order partial differential equations, Pfaffian D.E, Charpit's method.
➢ Solve Jacobi's method, second order partial differential equations.
➢ Describe one dimensional wave equations, Vibrations of String.
➢ Estimate Laplace's equations.
➢ Use applications of Harnacks theorem, Dirichlet problems, Heat Conduction, Wave equation in various fields.

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Semester - II - Paper – IV, Paper code-18MAT204

NUMERICAL METHODS WITH 'C

Students undergoing this course will be able to:

➢ Write C-basics and   simple programs, Functions and programs on it.
➢ Use applications of Arrays, strings, pointers, structures and unions.
➢ Justify Interpolation and approximation.
➢ Solve Numerical Differentiation and Integration.
➢ Put into practice Ordinary differential equations.

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Semester - II - Paper – V, Paper code-18MAT205

GRAPH THEORY

Students undergoing this course will be able to:

➢ Construct Graphs, paths and circuits.

➢ Sketch Trees and Fundamental circuits.

➢ Explain Cut sets and cut vertices.

➢ Design Planar and dual graphs.

➢ Develop Vector Spaces of a graph.

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Semester - III CBCS (II Year) - Paper- I, Paper code-18MAT301

RINGS AND MODULES

Students undergoing this course will be able to:

➢ Explain Fundamental Concepts of Algebra.

➢ Analyze Classical Isomorphism Theorems.

➢ Construct Prime ideals in commutative and special commutative rings.

➢ Summarize the complete ring of quotients of commutative ring and commutative semi prime ring.

➢ Derive Prime ideal spaces, functional representations.

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Semester - III CBCS (II Year) - Paper- II, Paper code-18MAT302

COMPLEX ANALYSIS

Students undergoing this course will be able to:

➢ Compute the complex number system, elementary properties and examples of analytic functions.

➢ Describe Complex integration.

➢ Explain Cauchy's theorems, Goursat's theorem.

➢ Evaluate Singularities, residues, argument principle.

➢ Formulate the Maximum modulus theorem, Phragmen – Lindelof theorem.

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Semester - III CBCS (II Year) - Paper- III , Paper code-18MAT303

FUNCTIONAL ANALYSIS

Students undergoing this course will be able to:

- ➢ Express Finite dimensional Spaces.
- ➢ Discuss Linear Functionals and Linear Operators.
- ➢ Use Zorn's Lemma, Hahn Banach Theorem, Reflexive spaces.
- ➢ Classify Category theorem, uniform boundedness theorem, strong and weak convergence, closed graph theorem.
- ➢ Make use of applications of Banach's theorem.

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Semester - III CBCS (II Year) - Paper- IV (A), , Paper code-18MAT304(A)

LATTICE THEORY

Students undergoing this course will be able to:

- ➢ Compute Partly Ordered Sets.
- ➢ Practice Lattices in General.
- ➢ Summarize the Complete Lattices.
- ➢ Describe Distributive and Modular Lattices.
- ➢ Generate Boolean Algebras.

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Semester - III CBCS (II Year) - Paper- IV (B) , Paper code-18MAT304(B)

SEMI GROUPS

Students undergoing this course will be able to know:

- ➢ Elucidate Monogenic semi groups, semilattices and lattices.
- ➢ Explain Congruences.
- ➢ Describe the equivalences L, R, H, J, D, regular semigroups.
- ➢ Estimate Ree's theorem, primitive idempotents.
- ➢ Evaluate Completely Congruences.

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Semester - III CBCS (II Year) - Paper- IV (C) , Paper code-18MAT304(C)

NUMBER THEORY

Students undergoing this course will be able to:
- Answer Arithmetical functions and Dirichlet multiplications.
- Solve Averages of Arithmetical Functions.
- Explicate some elementary theorems on the distribution of prime numbers.
- Depict Congruences.
- Study Finite abelian groups and their characters.

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Semester - III CBCS (II Year) - Paper- V (A) , Paper code-18MAT305(A)
THEORY OF COMPUTER SCIENCE – I

Students undergoing this course will be able to:
- Make use of Mathematical Preliminaries, the Theory of Automata.
- Be familiar with Formal Languages.
- Recognize Regular sets and regular grammars.
- Identify Context – free languages.
- Use Pushdown Automata.

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Semester - III CBCS (II Year) - Paper- V (B) , Paper code-18MAT305(B)
LINEAR PROGRAMMING

Students undergoing this course will be able to:
- Solve Mathematical background, Theory of the simplex method.
- Explain detailed development and computational aspects of the simplex method.
- Describe Transportation problem.
- Apply The Assignment problem.
- Plan Further Discussion of the Simplex Method.

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Semester - IV CBCS (II Year) - Paper- I , Paper code-18MAT401
NON COMMUTATIVE RINGS

Students undergoing this course will be able to:

- Give details about Classical theory of associative rings.
- Compute completely reducible rings, Artinian and Northerian rings.
- Demonstrate lifting idempotents, local and semi perfect rings.
- Solve injectivity and related concepts.
- Compare the complete ring of quotients, Rings of endomorphisms of injective modules.

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Semester - IV CBCS (II Year) - Paper- II , Paper code-18MAT402
MEASURE AND INTEGRATIONS

Students undergoing this course will be able to:

- Judge Lebesgue Measure.
- Generate The Lebesgue integral.
- Solve Differentiation and integration.
- Explain Measure and Integration.
- Employ Measure and Outer Measure.

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Semester - IV CBCS (II Year) - Paper- III, Paper code-18MAT403
OPERATOR THEORY

Students undergoing this course will be able to:

- Demonstrate Inner product spaces, further properties of inner product spaces.
- Identify Total Orthonormal sets and sequences, Hilbert Adjoint Operator.
- Use Spectral theory in finite dimensional normed spaces, further properties of resolvent and spectrum.
- Figure Banach algebras, further properties of Banach algebras.
- Discuss further spectral properties of compact linear operators.

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Semester - IV CBCS (II Year) - Paper- IV (A) , Paper code-18MAT404(A)
ALGEBRAIC CODING THEORY

Students undergoing this course will be able to:
- Discern Introduction to coding theory.
- Crack Error detecting codes, Error correcting codes, linear codes.
- Solve Generating matrices and Encoding, parity check matrices, Equivalent codes, MLD for linear codes.
- Decipher Perfect and related codes, The Golay code, Reed-Muller codes.
- Recognize Cyclic linear codes.

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Semester - IV CBCS (II Year) - Paper- IV (B) , Paper code-18MAT404(B)
FUZZY SETS AND APPLICATIONS

Students undergoing this course will be able to :
- Apply classical (crisp) sets to fuzzy sets.
- Explain Operation on fuzzy sets.
- Explore Fuzzy Arithmetic.
- Relate Fuzzy Relations.
- Prepare Fuzzy logic.

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Semester - IV CBCS (II Year) - Paper- IV (C) , Paper code-18MAT404(C)
NEAR RINGS

Students undergoing this course will be able to:
- Enlighten the Elementary Theory of near Rings.
- Portray Ideal Theory.
- Express Elements of the structure theory.
- Apply Primitive near Rings.
- Be acquainted with Radical theory.

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PAPER-V Semester - IV CBCS (II Year) - Paper- V (A) , Paper code-18MAT405(A)

THEORY OF COMPUTER SCIENCE-II

Students undergoing this course will be able to:

➤ Compute Turing machines and Linear Bounded Automata.

➤ Confer Linear Bounded Automata and languages.

➤ Explain LR (k) Grammars, closure properties of languages.

➤ Construct Computability.

➤ Create Propositions and Predicates.

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Semester - IV CBCS (II Year) - Paper- V (B) , Paper code-18MAT405(B)

OPERATIONS RESEARCH

Students undergoing this course will be able to:

➤ Describe Duality theory and its Ramifications.

➤ Solve the Revised Simplex method.

➤ Explain Game theory, Integer programming.

➤ Practice Job sequencing.

➤ Set up Dynamic programming.

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<u>M.Sc. DEGREE IN CHEMISTRY</u>
Program Outcomes, Program Specific Outcomes and Course Outcomes

The learning outcomes-based curriculum framework for a M.Sc. degree in Chemistry is intended to provide a broad framework to assist in the maintenance of the standard of chemistry programmes. It will periodically undertake review of graduate attributes, qualification descriptors, programme learning outcomes and course-level learning outcomes. The framework, however, does not seek to bring about uniformity in syllabi. Instead, the framework is intended to allow for flexibility and innovation in programme design and syllabi development, teaching-learning process, assessment of student learning levels.

Chemistry is normally referred to as the science that studies systematically the composition, properties, and reactivity of matter at the atomic and molecular level. The scope of chemistry as a subject is very broad. The key areas of study within the disciplinary/subject area of chemistry comprise: organic chemistry, inorganic chemistry, physical chemistry and analytical chemistry.

The overall aims of bachelor's degree programme in chemistry are to provide:
1. **Critical** t**hinking to** analyze chemical problems related to Inorganic, Organic, Physical and Analytical.
2. **Effective Communication and** scientific communication in both written & oral forms and using software.
3. **Social Interaction** individually and as a member or leader in team with the fundamental and advanced knowledge gained in the field of chemistry and other allied fields.
4. **Effective Citizenship to a**pply conceptual knowledge gained in the field of chemistry to assess social, health, safety, legal and cultural issues and the relevant consequences of it.
5. **Ethics** To record and analyze the experimental results by maintaining professional ethics, responsibilities and norms of the science practice.
6. **Environment and sustainability:** Understand the issues of environmental pollution and sustainable development.
7. **Self**-**directed & lifelong learning:** Engage in independent and lifelong learning of the concepts related to chemistry in broadest context of socio-technological changes.

Programme Specific Outcomes
1. Self-motivation towards global level research opportunities to pursue Ph.D. programme targeted approach of CSIR – NET examination.
2. Required skill to have specific placement in R&D, pharmaceutical Industry and allied divisions.
3. Required knowledge to clear discipline specific competitive exams conducted by service commission and other organizations.

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PG Department of Chemistry - Course Outcomes

I Year M. Sc. Program – Semester - I - Paper – I Paper code-18CHE101

<u>GENERAL CHEMISTRY</u>

After the completion of the course the graduate will be able to:

➢ Explain the significance of Statistical rules and principles in quantitative analysis
➢ Apply various principles & theory of titrimetric analysis and their applications.
➢ Describe symmetry elements, symmetry operations, matrices representation, character tables and its applications to spectroscopy etc.

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I Year M. Sc. Program – Semester - I - Paper – II - Paper code-18CHE102

<u>INORGANIC CHEMISTRY</u>

After the completion of the course the graduate will be able to:

➢ Define the postulates, basic theory and advanced theory of Quantum chemistry.
➢ Use the knowledge of chemistry of non-transition elements as well as basic and advanced knowledge of various aspects and theories of related to chemical bonding and applications of Lanthanides and actinide complexes.
➢ Adapt the knowledge of VB theory, CFT and MO theory in understanding the structure and bonding aspects, properties and applications of complexes.
➢ Illustrate the significance of the thermodynamic stability of complexes, factors affecting, theories to explain stability and methods of determining the stability constant of complexes.
➢ Clarify the importance of non-aqueous solvents and in specific liquid ammonia as medium for number of reactions.

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I Year M. Sc. Program – Semester - I - Paper – III - Paper code-18CHE103

ORGANIC CHEMISTRY

After the completion of the course the graduate will be able to:
- ➢ To understand the bonding aspects and aromaticity and anti-aromaticity of organic molecules and heterocyclic molecules.
- ➢ To understand the role of various reactive intermediates for various organic reactions.
- ➢ To acquire the kinetic and non kinetic approaches in determining the reaction mechanisms of various organic reactions.
- ➢ To have knowledge and understanding of various types of aliphatic and aromatic nucleophilic substitution reactions, their mechanisms, stereochemistry and various factors affecting nucleophilic substitution reactions.
- ➢ To understand the definition and types of elimination reactions and different types of elimination reactions and differentiate between the various mechanisms, orientation rules and perceive factors favouring elimination over substitution

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I Year M. Sc. Program – Semester - I - Paper – IV - Paper code-18CHE104

PHYSICAL CHEMISTRY

After the completion of the course the graduate will be able to:
- ➢ Understand Entropy of thermodynamic processes and deriving various thermodynamic functions.
- ➢ Understand various surface phenomenon and deriving the mathematical forms of those surface phenomenon.
- ➢ Understand Electromotive force, concentration cells and deriving the mathematical forms to the various electrochemical devices.
- ➢ Understand kinetic aspects of opposing, parallel and consecutive reactions, various theories of reaction rates and chain reactions.
- ➢ Understand properties of radioactive rays, theories of radioactive phenomenon, spectrograph of isotopic analysis and its applications

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I Year M. Sc. Program – Semester-I - Practical –I (code 18CHE105 (p)

INORGANIC CHEMISTRY

After the completion of the course the graduate will be able to:
- ➢ The importance of Inorganic qualitative analysis and its use in research and industry.
- ➢ The procedures / tests for the identification of cations and anions.

➢ The need for separation of interfering radical in Inorganic qualitative analysis.
➢ That complexes can be synthesized by simple procedures.

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I Year M. Sc. Program – Semester-I - Practical II (code 18CHE106(p)

ORGANIC CHEMISTRY

After the completion of the course the graduate will be able to:
➢ The importance of organic compound synthesis and its use in research and industry.
➢ The importance of solvent extraction and various types of distillations in organic synthesis.
➢ The procedures for the different reactions with different temperatures.
➢ The mechanisms and importance of organo metallic reagents in various organic reactions.
➢ The separation of different compounds in a mixture by using chromatographic techniques.

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I Year M. Sc. Program – Semester-I - Practical III (code 18CHE107(p)

PHYSICAL CHEMISTRY

After the completion of the course the graduate will be able to:
➢ Explain the important aspects of 2nd order kinetics.
➢ Describe the core areas of first order kinetics.
➢ Utilise various methods to find out the concentration of unknown potassium iodide solution with the help of equilibrium constant.
➢ Apply the procedures to find out the purity of benzoic acid by knowing the distribution coefficient.
➢ Find out the purity of phenol by excited solution of phenol water system.

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I Year M. Sc. Program – Semester - II - Paper – I - Paper code-18CHE201

MOLECULAR SPECTROSCOPY

After the completion of the course the graduate will be able to:

➢ To apply the knowledge of UV – Visible spectroscopy in establishing the structure of molecules, qualitative and quantitative analysis.
➢ To understand the importance of vibrational spectroscopy in identifying the functional groups and structural determination of organic molecules.
➢ To comprehend the principle, theory, instrumentation and other important aspects of proton NMR spectroscopy.

➢ To apply the knowledge of PMR spectroscopy in structural determination of organic molecules and as well can understand the basic principle, theory and applications of ESR spectroscopy.
➢ To get imparted with the knowledge of mass spectrometry and its role in elucidating the structure of organic molecules

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I Year M.Sc. Program – Semester - II - Paper – II - Paper code 18CHE202
INORGANIC CHEMISTRY-II

. After the completion of the course the graduate will be able to:
➢ To understand the methods of preparation, structure, bonding, properties and applications of non-metal cages and metal cluster.
➢ To appreciate the knowledge of various types, general methods of preparation, bonding, structural aspects of organometallic compounds and their significance as catalysts.
➢ To assimilate the knowledge of factors affecting, mechanism, evidences and kinetic aspects related to various types of reactions associated with transition metal complexes and photo reaction of complexes.
➢ To incorporate with the required knowledge of energy levels, their ordering, separation between them, energy level diagrams to get familiarize with electronic spectra of free metal ions and complexes and also magnetic properties of complexes.
➢ To acquire the basic knowledge of spectroscopy, principles, theory and applications of microwave and IR spectroscopes.

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I Year M. Sc. Programme – Semester - II - Paper – III - Paper code 18CHE203
ORGANIC CHEMISTRY-II

After the completion of the course the graduate will be able to:
➢ To understand various fundamental concepts of stereochemistry and apply the knowledge gained in this course to a variety of chemical problems.
➢ To identify, classify, organize, analyze and draw structures
➢ of organic molecules and predict how the structure and physical properties of organic molecules influence their biological properties.
➢ To understand the concept and 12 principles of green chemistry and also the need of green synthesis for sustainable environment.

➢ To understand the need and scope and significance of nano chemistry for the present and future.
➢ Have knowledge about a protecting group, understand the protection of some important functional groups in organic synthesis.

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I Year M. Sc. Programme – Semester - II - Paper – IV - Paper code- 18CHE204

PHYSICAL CHEMISTRY-II

After the completion of the course the graduate will be able to:

➢ The student will be able to understand third law of thermodynamics, concept of distribution and various thermodynamic statics in detail.
➢ The student will able to understand classification of polymers, various mechanisms of Polymerization Processes, techniques of polymerization and molecular weight determination in detail.
➢ The student will able to understand double layer at the interface, fuel cells, corrosion in detail.
➢ The student will able to understand Branching chain reactions, fast reactions, catalysis and its Kinetics aspects in detail.
➢ The student will bale to understand the photochemical reactions, laws of photochemistry, actinometry in detail.

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I Year M. Sc. Programme – Semester-II - Practical I Paper code 18CHE205P

INORGANIC CHEMISTRY

After the completion of the course the graduate will be able to:
➢ The need and role of redox reactions in quantitative analysis.
➢ The role of complexometry in quantitative analysis.
➢ The significance of precipitation titration in Inorganic quantitative analysis.
➢ The importance of the knowledge of gravimetry in Inorganic analysis.

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I Year M. Sc. Programme – Semester-II - Practical II – Paper code 18CHE206P

<u>ORGANIC CHEMISTRY</u>

After the completion of the course the graduate will be able to:
- ➢ The importance of organic compound synthesis and its use in research and industry.
- ➢ The procedures for the different steps for the organic compound synthesis.
- ➢ The mechanisms for the synthesis of organic compounds in different steps.
- ➢ The recrystallization of organic compound in various steps for the organic compound synthesis.
- ➢ The procedure to identify various functional groups present in the given organic compound by using a systematic procedure.
- ➢ And get familiarized with the tests involved in identification of various functional groups

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I Year M. Sc. Programme – Semester-II - Practical III (code 18CHE207P

<u>PHYSICAL CHEMISTRY</u>

After the completion of the course the graduate will be able to:

- ➢ The student will be able to understand the determination of Iron (II) Solution by knowing the change in the potential of the fe(II) solution when added Cr(IV) solution.
- ➢ The student will able to acquire the practical knowledge on PH of acids and bases.
- ➢ The student will able to acquire the practical knowledge on determination of strong acid and weak acid with strong base PH metrically.
- ➢ The student will bale understand practical knowledge on conductance with respect to strong acid and strong base.

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II Year M. Sc. Programme – Semester - III - Paper – I - Paper code-18CHE301

<u>ORGANIC SPECTROSCOPY</u>

After the completion of the course the graduate will be able to:
- ➢ Apply the knowledge of UV – Visible spectroscopy in establishing the structure of molecules, qualitative and quantitative analysis.
- ➢ Understand the importance of vibrational spectroscopy in identifying the functional groups and structural determination of organic molecules.
- ➢ Comprehend the principle, theory, instrumentation and other important aspects of proton NMR spectroscopy.

- ➢ Apply the knowledge of PMR spectroscopy in structural determination of organic molecules and as well can understand the basic principle, theory and applications of ESR spectroscopy.
- ➢ Utilise the knowledge of mass spectrometry and its role in elucidating the structure of organic molecules.
- ➢ Establish the structures of organic molecules.

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II Year M. Sc. Programme – Semester - III - Paper –II - Paper code-18CHE302

Organic Reactions and mechanisms

After the completion of the course the graduate will be able to:
- ➢ Enumerate the importance of various reactants and reagents to bring about oxidation reactions of organic compounds.
- ➢ Reckon the importance of various reactants and reagents to bring about reduction reactions of organic compounds.
- ➢ Get acquainted with various molecular rearrangements, their definition, mechanism and application in organic synthesis.
- ➢ Define pericyclic reactions, classification, identify electrocyclic reactions, cycloadditions and sigmatropic shifts and application of Woodward − Hoffmann rules to them.
- ➢ Develop basic knowledge in the fields of photochemistry, characterization of ground and excited states and photochemical transformation of various organic functional groups.

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II Year M. Sc. Programme – Semester - III - Paper –III - Paper code-18CHE303
Organic Synthesis

After the completion of the course the graduate will be able to:
- ➢ Comprehend role and significance of C − C single bonds in organic reactions.
- ➢ Realize the various methods involved in the synthesis of formation of carbon − carbon double bonds.
- ➢ Appreciate the role of dienes and dienophiles in the synthesis of cyclic and acyclic compounds as well as the mechanisms and stereochemistry involved in these reactions.
- ➢ Grasp the importance un-activated C − H bonds in organic synthesis
- ➢ Demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to retrosynthetic analysis apply that knowledge to the synthesis of organic target molecule.

National Level Workshop on OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES (Under Assistance of UGC Autonomous Grant) - 22nd November 2019 – M. Sc. Chemistry Outcomes. Submitted by: Dr. M. Sivanath, HOD, PG Dept. of Chemistry, Smt. K. Subhashini, Smt. D. Vimala Kumari, Ms. G. Geetasri, Lecturers in PG Chemistry.

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II Year M. Sc. Programme – Semester - III - Paper –IV - Paper code-18CHE304

<u>Organo Metallic Chemistry, Nano Chemistry and Natural Products</u>

After the completion of the course the graduate will be able to:
- ➤ Will be able emphasize the importance of organo boranes in organic reactions and in developing synthetic routes.
- ➤ Will be able to understand the synthetic applications of organo silanes.
- ➤ Will be able to understand the role of organic metallic reagents in various organic reactions.
- ➤ Will be able to understand the methods of synthesis and reactivity of various heterocyclic compounds.
- ➤ Will be educated with nomenclature, physiological action isolation occurrence and general methods of structural education and stereochemistry of natural products.

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II Year M. Sc. Programme – Semester-III - Practical I - code 18CHE305 (p)

Organic Preparations and Green Organic Preparations

After the completion of the course the graduate will be able to:

- ➤ The graduate Will be able to acquire the skill and acquainted with the knowledge of single and multistep organic preparations

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II Year M. Sc. Programme – Semester-III - Practical II - code 18CHE306 (p)

Mixture Analysis

After the completion of the course the graduate will be able to:
- ➤ Separate the given organic mixture based on the solubility.
- ➤ Identify various functional groups present in the given organic compound by using a systematic procedure.
- ➤ Get familiarized with the tests involved in identification of various functional groups.
- ➤ Maintain a detailed scientific note book, summarize findings in writing in a clear and concise manner.

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II Year M. Sc. Programme – Semester-III - Practical III - code 18CHE307(P)

Characterization of organic compounds using IR, UV-Vis and NMR Spectral Methods

After the completion of the course the graduate will be able to:
- ➢ Have an understanding of applying the knowledge of different spectroscopic techniques to elucidate the structure of organic compounds.
- ➢ Identify the molecular structure of organic compounds using multiple spectroscopic techniques.
- ➢ Develop problem solving skills.

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II Year M. Sc. Programme – Semester - IV - Paper – I - Paper code-18CHE401

Advanced Organic Spectroscopy

After the completion of the course the graduate will be able to:
- ➢ Understand principle, theory (Basic and advanced) and applications of 13C NMR spectroscopy.
- ➢ Comprehend the principle theory of 1HNMR and its role in structural establishment of organic compounds.
- ➢ Emphasise the role of ORD, CD and cotton effect in assigning the absolute configuration of simple and complex molecules.
- ➢ Acquire the required knowledge in establishing the molecular structures, assigning the C − C linkages, spatial interactions through various techniques of 2D NMR.
- ➢ Apply the acquired knowledge of various spectroscopic techniques collectively in establishing the structures of organic molecules.

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II Year M. Sc. Programme – Semester - IV - Paper –II - Paper code-18CHE402

Organic Reactions and mechanisms

After the completion of the course the graduate will be able to:
- ➢ Enumerate the importance of various reactants and reagents to bring about oxidation reactions of organic compounds.
- ➢ Reckon the importance of various reactants and reagents to bring about reduction reactions of organic compounds.

> ➢ Get acquainted with various molecular rearrangements, their definition, mechanism and application in organic synthesis.
> ➢ Define pericyclic reactions, classification, identify electro cyclic reactions, cycloadditions and sigma tropic shifts and application of Woodward − Hoffmann rules to them.
> ➢ Acquire basic knowledge in the fields of photochemistry, characterization of ground and excited states and photochemical transformation of various organic functional groups.

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II Year M. Sc. Programme – Semester - IV - Paper –III - Paper code-18CHE403

<u>Organic Synthesis II</u>

After the completion of the course the graduate will be able to:

> ➢ Describe the role and significance of C − C single bonds in organic reactions.

> ➢ Reckon various methods involved in the synthesis of formation of carbon − carbon double bonds.

> ➢ Explain the role of dienes and dienophiles in the synthesis of cyclic and acyclic compounds as well as the mechanisms and stereochemistry involved in these reactions.

> ➢ Appreciate the importance unactivated C − H bonds in organic synthesis.

> ➢ Demonstrate knowledge and understanding of essential facts, concepts, principles and theories relating to retrosynthetic analysis apply that knowledge to the synthesis of organic target molecule.

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II Year M. Sc. Programme – Semester - IV - Paper –IV - Paper code-18CHE404

TOOLS AND TECHNIQUES FOR MODER INDUSTRIAL APPLICATIONS

After the completion of the course the graduate will be able to:
- ➢ Apply principles and methods of distillation, drying, solvent extraction and crystallization.
- ➢ Display knowledge of basic principles, theory and applications of column, paper and thin layer chromatography.

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PROJECT

After the completion of the project the graduate will be able to:

- ➢ Display the required skills to implement theoretical knowledge gained.
- ➢ Assimilate the knowledge for future research through practical knowledge gained in the project work.
- ➢ Gain the required ability to start up own industry.
- ➢ Exhibit the ability to draft and communicate the practical work.

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The Learning Outcomes-Based Curriculum Framework (LOCF) for the Programs in Physics

The Learning Outcomes-based Curriculum Framework (LOCF) for the programs in Physics is intended to provide a broad framework to create an academic base that responds to the need of the students to understand the basics of Physics and its ever evolving nature of applications in explaining all the observed natural phenomenon as well as predicting the future applications to the new phenomenon with a global perspective.

The qualification descriptors for an M.Sc. Physics Program may include the following. The student should be able to Demonstrate:

(i) A systematic, extensive and coherent knowledge and understanding of the academic field of study as a whole and its applications including a critical understanding of the established theories, principles and concepts, and of a number of advanced and emerging issues in the field of Physics;

(ii) Procedural knowledge that creates different types of professionals related to the subject area of Physics, including research and development;

(iii) Skills in areas related to one's specialization and current developments in the academic field of Physics, and an ability to use established techniques of analysis and enquiry within the area of specialization;

(iv) Comprehensive knowledge about materials and techniques and skills required for identifying Physics problems and issues in their area of specialization in Physics;

(v) Skills in identifying information needs, collection of relevant quantitative and/or qualitative data drawing on a wide range of sources, analysis and interpretation of data using methodologies as appropriate to the subject of Physics in the area of specialization;

(vi) Use knowledge, understanding and skills in Physics for critical assessment of a wide range of ideas and complex problems and issues relating to the various sub fields of Physics;

(vii) Communicate the results of studies undertaken in the academic field of Physics accurately in a range of different contexts using the main concepts, constructs and techniques of the subject of Physics;

(viii) Address one's own learning needs relating to current and emerging areas of study relating to Physics, making use of research, development and professional materials as appropriate, including those related to new frontiers of knowledge in Physics;

(ix) Apply one's knowledge and understandings relating to Physics and skills to new/unfamiliar contexts and to identify and analyze problems and issues and seek solutions to real-life problems;

(x) Demonstrate subject-related and transferable skills that are relevant to some of the Physics related jobs and employment opportunities.

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Post-Graduate Department of Physics - Programme Outcomes

M. Sc. Physics - Semester – I - Paper Code - 18PHY101 – Paper - I

MATHEMATICAL PHYSICS

At the end of the course the student will be able to:

- ➢ Use Vectors and their applications.
- ➢ Explain Special type of matrices - tensors.
- ➢ Define Special functions and their recurrence relations.
- ➢ Interpret Fourier series, Fourier and Laplace transforms.

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M. Sc. Physics - Semester – I - Paper Code - 18PHY102 – Paper - II

CLASSICAL MECHANICS

At the end of the course the student will be able to:

- ➢ Define Lagrangian and Hamiltonian approaches in classical mechanics.
- ➢ Identify Classical background of Quantum mechanics.
- ➢ Apply Kinematics and Dynamics of rigid body.
- ➢ Describe theory of small oscillations.
- ➢ Use basic ideas about Non linear equations and chaos.

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M. Sc. Physics - Semester – I - Paper Code - 18PHY103 – Paper - III

QUANTUM MECHANICS – I

At the end of the course the student will be able to:

- ➢ Explain approximation methods for time-independent problems.
- ➢ Define linear vector spaces.
- ➢ Compute theory of angular momentum and spin matrices.
- ➢ Interpret Schrodinger and Heisenberg formulations of time development and their applications
- ➢ Describe Variational equation and its application.

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M. Sc. Physics - Semester – I - Paper Code - 18PHY104 – Paper - IV

ELECTRONICS

At the end of the course the student will be able to:

➢ Define Operational amplifiers.

➢ Illustrate Digital electronic devices and the concepts of microprocessor.

➢ Explain amplifiers and integrated circuits and their construction.

➢ Select the concept of modulation in communication electronics.

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M. Sc. Physics - Semester – I - Paper Code - 18PHY105 (P) – Practical --I

GENERAL PHYSICS – I

At the end of the course students will be able to:

➢ Compose various coefficients.

➢ Categorize different experimental processes.

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M. Sc. Physics - Semester – I - Paper Code - 18PHY106 (P) – Practical -- II

ELECTRONICS LAB

At the end of the course student will be able to:

➢ Describe different types of operational amplifiers.

➢ Explain working and the construction of oscillators.

➢ Analyze multi-vibrators.

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M. Sc. Physics - Semester-II - Paper Code - 18PHY201 - Paper-I

COMPUTATIONAL METHODS AND PROGRAMMING

At the end of the course student will be able to:

➢ Describe Strong base in c-language.

➢ Demonstrate Arrays.

➢ Explain Numerical methods.

➢ Prepare to solve the problems by the algorithms.

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M. Sc. Physics - Semester-II - Paper Code - 18PHY202 - Paper- II
QUANTUM MECHANICS - II

At the end of the course the student will be able to:

➢ Explain different methods for time-independent problems.
➢ Describe Variational equation and its application.
➢ Outline Perturbation theory and Interaction.
➢ Summarize theory of identical particles.

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M. Sc. Physics - Semester-II - Paper Code - 18PHY203 - Paper- III
STATISTICAL MECHANICS

At the end of the course the student will be able to:

➢ Discuss Statistical physics and thermodynamics.
➢ Explain statistical mechanics to selected problems.
➢ Express the basis of ensemble.
➢ Apply fundamental differences between classical and quantum statistics.

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M. Sc. Physics - Semester-II - Paper Code - 18PHY204 - Paper- IV
SOLID STATE PHYSICS

At the end of the course the student will be able to:

➢ Outline basic knowledge of crystal systems.
➢ Predict Phonons in the free-electron model.
➢ Describe Principles of semiconductors.

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M. Sc. Physics - Semester-II - Paper Code - 18PHY205 (P) - Practical — III
GENERAL PHYSICS — II

At the end of the course the student will be able to:

➢ Recognize Different experimental techniques.
➢ Justify the basics of physics involved in experiments.
➢ Explain the concepts of physics and do the interpretation and acquire the result.

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M. Sc. Physics - Semester-II - Paper Code - 18PHY206 (P) - Practical — IV
C — PROGRAMMING AND MICROPROCESSOR

At the end of the course students will be able to:

➢ Define c-programs by using algorithms.

➢ Prepare c-programs on performing certain operations.

➢ Compose on the programs of numerical integration and differentiation.

➢ Choose execute programs on microprocessor (8085).

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M. Sc. Physics - Semester-III - Paper Code - 18PHY301 - Paper-I
ELECTRO MAGNETIC THEORY, LASERS & MODERN OPTICS

At the end of the course the student will be able:

➢ Illustrate Electromagnetic theory.

➢ Compare the relation between Non-Linear Optics and Holography.

➢ Interpret modes and configurations of Optical Fibers.

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M. Sc. Physics - Semester-III - Paper Code - 18PHY302 - Paper-II
ADVANCED QUANTUM MECHANICS

At the end of the course the student will be able to:

➢ Describe Relativistic quantum mechanical equations.

➢ Evaluate second quantization.

➢ Develop relativistic quantum field theory.

➢ Compute Feynman Graphs for different interactions.

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M. Sc. Physics - Semester-III - Paper Code - 18PHY303A - Paper-IIIA
MOLECULAR PHYSICS (IE)

At the end of the course the student will be able to:

➢ Define the basic physical chemistry law.

➢ Describe basic information on molecular methods.

➢ Prepare to select molecular spectroscopy methods.

➢ Express the phenomenon of the interaction of light with matter.

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M. Sc. Physics - Semester-III - Paper Code - 18PHY303B - Paper-IIIB
ATOMIC AND MOLECULAR SPECTROSCOPY (EE)

At the end of the course the student will be able to:

➢ Define the fundamentals of atomic molecular spectroscopy.

➢ Explain basic information on molecular methods.

➢ Discuss molecular spectroscopy methods.

➢ Compute to analyze results of measurements.

➢ Describe introduction to Atomic Spectra with matter.

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M. Sc. Physics - Semester-III - Paper Code - 18PHY304A - Paper-IVA
Solid State Physics - I (Special) (EE)

At the end of the course the student will be able to:

➢ Define Physics behind structural properties of the solids.

➢ State the properties of solids.

➢ Illustrate basics of scattering and absorption.

➢ Compose the research work in the field of Solid State Physics.

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M. Sc. Physics - Semester-III - Paper Code - 18PHY304B - Paper-IVB
Condensed Matter Physics - I (Special)

At the end of the course the student will be able to:

➢ Outline structural properties of the solids.

➢ Describe the accomplishment of a master thesis.

➢ Employ research work in the field of material science and nanotechnology.

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M. Sc. Physics - Semester-III - Paper Code - 18PHY306 (P) - PRACTICAL – V
Advanced Physics & Optics

At the end of the course the student will be able to:
➢ Define lab reports graded on the quantity and quality of the work.

➢ Illustrate power of observation.

➢ Express the ability to reason and analyze experimental procedures.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY401 - Paper-I
NUCLEAR AND PARTICAL PHYSICS

At the end of the course the student will be able to:
➢ Explain Fundamental particles.

➢ Describe role of spin-orbit coupling.

➢ Compute to analyze weak interaction physics.

➢ Outline new ideas found in fundamental research.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY402 - Paper-II
ANALYTICAL TECHNIQES

At the end of the course the student will be able to:
➢ Explain different nuclear spectroscopic processes.

➢ Define process involved in electron spectroscopic techniques.

➢ Evaluate different processes of thermal analytical techniques.

➢ Describe experimental methods of Mossbauer spectroscopy.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY403A - Paper- III A
ADVANCES IN MATERIALS SCIENCE (IE)

At the end of the course the student will be able to:
- ➢ Explain physics behind structural properties of the solids.
- ➢ Evaluate Structure and properties of different ceramic materials.
- ➢ Outline Phase diagrams.
- ➢ Different Properties of different biomaterials.
- ➢ Describe research work in the field of material science and nanotechnology.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY403B - Paper- III B
MATERIALS SCIENCE SPECIAL (EE)

At the end of the course the student will be able to:
- ➢ Summarize light of quantum confinement.
- ➢ Describe Synthesis of Nano materials.
- ➢ Compute to analyze the Nano crystalline states.
- ➢ Explain use of nano material science objects in their research work.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY404A - Paper- IV A
SOLID STATE PHYSICS SPECIAL-II (EE)

At the end of the course the student will be able to:
- ➢ Practice basic concepts on properties of materials.
- ➢ Illustrate Phenomenon of superconductivity.
- ➢ Explain different techniques used for synthesis.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY404B - Paper- IV B
CONDENSED MATTER PHYSICS -II (SPECIAL) (IE)

At the end of the course the student will be able to:

➢ Practice Lattice types.

➢ Describe Electrical and thermal properties of solids.

➢ Outline Concept of energy bands.

➢ Explain various types of magnetic, superconductivity phenomenon.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY405 (P) - PRACTICAL – VII
CONDENSED MATTER PHYSICS LAB

At the end of the course the student will be able to:

➢ Compute to design complete experimental apparatus.

➢ Identify to implement advanced condensed matter physics experiments.

➢ Explain to elaborate and interpret experimental data.

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M. Sc. Physics - Semester-IV - Paper Code - 18PHY406- Paper V
PROJECT WORK

At the end of the course the student will be able to:

➢ Design and validate technological solutions to defined problems and write clearly and effectively, for the practical utilization of their work.

➢ Acquire abilities and capabilities in the areas of advanced manufacturing methods, quality assurance and shop floor management.

➢ Formulate relevant research problems, conduct experimental or analytical work and analyze results using modern mathematical and scientific methods.

➢ Review and document the knowledge developed by scholarly predecessors and critically assess the relevant technological issues.

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Program Outcomes, Program Specific Outcomes and Course Outcomes
Department of Physics UG

The learning outcomes for the undergraduate program in B.Sc. (Physics) are intended to provide an academic base that responds to the need of the students to understand the basics of Physics and its applications, explaining all the observed natural phenomenon. The B.Sc. (Physics) undergraduate programme is designed to equip student with knowledge, skills, scientific attitudes for rational reasoning, critical thinking for problem solving and initiating research.

The B.Sc. (Physics) undergraduate programme provides an environment to create, develop and inculcate rational, ethical and moral attitudes and values in the students. The learning outcome based curriculum in Physics helps to:

➢ Develop an understanding and knowledge of the basic Physics.
➢ Create the ability to use this knowledge to analyze the new situations ad impart the skills and tools find the solution.
➢ Develop the ability to apply the knowledge acquired in the classroom and laboratories to
➢ Help in solving Specific problems in theoretical and experimental Physics.
➢ Learn to interpret the results and make predictions for the future developments.

On completion of the Under Graduate B.Sc. Physics Course, the students will:

➢ Apply the core concepts of Physics, principles and theories along with their applications in Mechanics, Special theory of relativity and general theory of relativity, Wave theory, Optics, Thermodynamics and radiation physics, Electricity and magnetism, Quantum mechanics, Atomic physics, Nuclear physics, Elementary particle physics, Solid state physics, Analog and digital electronics, Microprocessors and microcontrollers, Computational methods and programming, Electronic instrumentation through in house project.
➢ Develop proficiency in the analysis of complex physical problems and the use of mathematical or other appropriate techniques to solve them.
➢ Perform procedures as per laboratory standards in the areas of mechanics, wave theory, optics, thermodynamics and radiation physics, Electricity and magnetism, Special and general theories of relativity, quantum mechanics, atomic physics, nuclear and elementary particle physics, solid state physics, analog and digital electronics, microprocessors and microcontrollers, electronic instrumentation and computational methods and programming.
➢ Use the applications of Physics and electronics in other fields of science and technology by completing in house project work.
➢ Apply to use the computational methods and programming knowledge to prepare their in house project work and present by using power-point.

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I B. Sc – Physics – Semester – I - Paper – I - Paper code: 18PHY1
MECHANICS AND PROPERTIES OF MATTER

Students undergoing this course will be able to:
➢ Apply Vector Analysis for various applications.
➢ Explain Mechanics of particles, rigid bodies, and Continuous media.

➢ Describe the Central forces and their interpretations.
➢ Visualize Special theory of relativity and its applications in daily life.

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I B. Sc - Physics – Semester – I - Paper – I - Paper code: 18PHY1P
MECHANICS AND PROPERTIES OF MATTER LAB

On successful completion of the course students will be to
➢ Record the concept of Viscosity of liquid by the flow method (Poiseuille's method.)
➢ Demonstrate Surface tension and tabulate values for various liquids by capillary raise method.
➢ Simulate the Moment of inertia concept and produce it for a fly wheel.
➢ Explain the Perpendicular axis theorem for a regular rectangular body.
➢ Determine Young's modulus of the material of a bar by uniform bending and non-uniform bending methods.
➢ Demonstrate the rigidity modulus of material of a wire by dynamic method using torisional pendulum.

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I B. Sc - Physics – Semester- II - Paper-II - Paper code: 18PHY2
WAVES AND OSCILLATIONS

Students on successful completion of this course will
➢ Classify Simple Harmonic oscillations, Damped and forced oscillations.
➢ Analyse the various wave forms using Complex vibrations.
➢ Determine the velocity of waves in the stretched strings and vibrating bars.
➢ Study methods of production, detection of Ultrasonic's and discuss its applications.

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I B. Sc - Physics – Semester - II – Paper - II Paper code: 18PHY2P
WAVES AND OSCILLATIONS LAB

At the end of the course the student will be able to:
➢ Observe the concept of resonance and determine the unknown frequency of given tuning fork using Volume resonator experiment.
➢ Demonstrate the acceleration of gravity (g) at given place by using compound/bar pendulum.
➢ Estimate various errors and apply it to find accurate 'g' value using Simple pendulum.
➢ Determine the Force constant of a spring by static and dynamic method.
➢ Explain concept of resonance to estimate frequency of vibration a bar by Melde's experiment.
➢ Compute various Laws of vibrations in a stretched string using sonometer.

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II B. Sc – Physics – Semester – III - Paper – III – Paper code: 18PHY3
WAVE OPTICS

On successful completion of the III-Semester students will

➢ Recall about theories of light, the nature of light, its propagation and interaction with matter.
➢ Distinguish the wave model of light, its paraxial approximation.
➢ Describe the aberration due to an optical system and correction of aberrations.
➢ Develop skills to identify and apply formulas of optics and evaluate a lens system.
➢ Review the principles of wave motion and superposition of waves.
➢ Analyze interference in thin films,
➢ Interpret applications of interference in design and working of interferometers and their applications
➢ Outline the theory of various experimental methods to demonstrate physics of interference and diffraction,
➢ Derive the diffraction grating formula and solve problems about diffraction gratings
➢ Recognize the resolving power of different optical instruments.
➢ Describe the concept of polarisation of light and its daily life applications.
➢ Recall the basics of Fiber optics and holography and Lasers
➢ Evaluate problems in optics by selecting the appropriate equations.

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II B. Sc – Physics – Semester – II - Paper – III Paper code: 18PHY3P
WAVE OPTICS LAB

On successful completion of the III-Semester students

➢ Determine the radius of curvature of a given convex lens using Newton's rings method.
➢ Distinguish Wavelength of light using diffraction grating in minimum deviation method and normal incidence method.
➢ Measure the thickness of a paper by wedge method.
➢ Visualize dispersion phenomena using diffraction grating and prism.
➢ Assemble the experiment and estimate dispersive power of material of the prism.
➢ Demonstrate and evaluate the wavelength of light using diffraction grating in minimum deviation method and normal incidence method.
➢ Verify the wavelength of Laser light using diffraction grating
➢ Explore Optical activity of different materials using Polarimeter.

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II B. Sc – Physics – Semester – IV – Paper – IV Paper code: 18PHY4
THERMODYNAMICS AND RADIATION PHYSICS

On successful completion of the IV-Semester students will

➢ Learn the concepts associated with thermodynamics through the precise definitions.

- Identify and solve a variety of types of problems concerning with thermodynamics.
- Apply the basic concepts of thermodynamics to real life applications.
- Describe the microscopic behavior of molecules interactions
- Relate concept of distribution of molecular speeds possessed by molecules,
- Know the concepts of transport phenomena
- Explain First Law of thermodynamics and be able to reversible and irreversible process.
- Discuss the concept of thermodynamic potentials and derive their relations,
- Formulate the Clausius-Clayperon's equation,
- Prepare relation between specific heat capacities of gases using the thermodynamic relations.
- Generalize the concept of low temperatures
- Identify Black-body radiation as thermal electromagnetic radiation using different pyrometers.

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II B. Sc – Physics – Semester – IV – Paper – IV – Paper code: 18PHY4P
THERMODYNAMICS AND RADIATION PHYSICS LAB

On successful completion of the IV-Semester students will be able to
- Investigate Thermal conductivity of bad conductor using Lee's method.
- Estimate thermal conductivity of rubber.
- Determine Stefan's constant.
- Visualize the variation of resistance of thermistor with temperature.
- Investigate the energy gap of semiconductor materials using thermistor.
- Illustrate the heating efficiency of electrical kettle with varying voltages.
- Evaluate the Specific heat of a liquid by applying Newton's law of cooling correction

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III B. Sc – Physics – Semester – V – Paper–V – Paper code: 5003PHY15-A
ELECTRICITY, MAGNETISM AND ELECTRONICS

Students On successful completion of the V-Semester will
- Recall concepts and theories of Electric charge, electric field intensity, Gauss law and its applications.
- Distinguish concept of materials, Dielectrics and its everyday applications.
- Explain Electric and magnetic fields and their applications.
- Illustrate Electromagnetic induction phenomena and its applications.
- Analyse the concept of alternating currents.
- Apply Maxwell's equations for electromagnetic waves detection.
- Expose to basic electronics and construct Digital electronics circuits.

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III B. Sc – Physics – Semester – V– Paper – V– Paper code: 5003PHY15-AP
ELECTRICITY, MAGNETISM AND ELECTRONICS LAB

Students On successful completion of the V-Semester will
➢ Design LCR circuit series/parallel resonance circuits and estimate Quality factor of circuits.
➢ Evaluate the Frequency of Alternating current using sonometer.
➢ Study and explain Kirchhoff's laws and estimate maximum power transfer theorem.
➢ Determine Field along the axis of a circular coil carrying current.
➢ Compare PN Junction Diode and Zener Diode Characteristics.
➢ Design Logic Gates and verify their truth Tables
➢ Construct De Morgan's Theorems and verify their truth Tables.

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III B. Sc – Physics – Semester – V – Paper – VI – Paper code: 5003PHY15-B
MODERN PHYSICS

Students on successful completion of the V-Semester will
➢ Distinguish the atomic and molecular physics.
➢ Use idea of Matter waves & Uncertainty Principle.
➢ Interpret Schrodinger formulations of time independent and time-dependent and their applications using Quantum (wave) mechanics.
➢ Explain general Properties of Nuclei and Radioactivity decay.
➢ Study and interpret Crystal Structures.
➢ Describe superconductivity and its everyday applications.

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III B. Sc – Physics – Semester – V – Paper – VI – Paper code: 5003PHY15-BP
MODERN PHYSICS LAB

On successful completion of the V-Semester Students able to
➢ Verify the magnetic moment of a bar magnet (M) and Horizontal component of earth's magnetic field(H) using deflection and vibration magnetometers.
➢ Determine the energy gap of a semiconductor material using junction diode.
➢ Investigate energy gap of semiconductor materials using thermistor.
➢ Visualize variation of resistance of semiconductor materials with temperature using thermistor.
➢ Estimate the Specific resistance of a given wire using Carry Foster.
➢ Evaluate the A.C. impedance and power factor.

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National Level Workshop on OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES (Under Assistance of UGC Autonomous Grant) - 22nd November 2019 – Under Graduate PHYSICS OUTCOMES –Submitted by Dr. N. Krishna Mohan, Vice-principal, K. Anil Kumar, HOD, R.N.A. Prasad, P. Lakshmi Sowjanya, B. Sri Devi, K. Naga Praveen, Lecturers.

III B. Sc – Physics – Semester – VI – Paper – VI Paper code: 6003PHY15-A
<u>ANALOG AND DIGITAL ELECTRONICS</u>

Students on successful completion of the VI-Semester will be able to

➢ Identify Field effect Transistor(F.E.T.),Photo electric devices.
➢ Describe the working of F.E.T.'s, M.O.S.F.E.T.'S, L.C.D., L.D.R., OP.Amp.
➢ Describe Operational Amplifiers(Op-Amp.) laboratory applications.
➢ Differentiate various Data processing circuits and their role in computer technology.
➢ Explain the Sequential digital circuits and their role.

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III B. Sc – Physics – Semester–VI – Paper – VII Paper code: 6003PHY15-AP
<u>ANALOG AND DIGITAL ELECTRONICS LAB</u>

Students on successful completion of the VI-Semester will be able to
➢ Assemble characteristics circuits of Metal Oxide Semiconductor Field Effect Transistor (MOSFET).
➢ Summarize the characteristics of a M.O.S.F.E.T.
➢ Design Light Dependent Resistor (LDR) characteristic circuit useful for practical applications.
➢ Construct various Op-amp circuits for practical applications.

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III B. Sc – Physics – Semester–VI – Paper – VII (A-1) – Paper code: 6003 PHY15-A1
<u>INTRODUCTION TO MICROPROCESSORS AND MICROCONTROLLERS</u>

Students on successful completion of this course will be able to
➢ Distinguish microcontrollers and 8051 microcontroller.
➢ Illustrate the concepts of microprocessors and their applications.
➢ Describe the Timer circuits and their real time applications.
➢ Explain embedded system design and their development.

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III B. Sc – Physics – Semester–VI – Paper – VII (A-1P) – Paper code: 6003PHY15-A1P
<u>INTRODUCTION TO MICROPROCESSORS AND MICROCONTROLLERSP</u>

Students on successful completion of this course will be able to
➢ Outline the microprocessors and microcontrollers.

- ➢ Compose programs using numerical integration and differentiation.
- ➢ Design programs for various applications to execute on microprocessor (8085).

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III B. Sc – Physics – Semester–VI – Paper – VII (A-2) – Paper code: 6003 PHY15-A2P

COMPUTATIONAL METHODS AND PROGRAMMING

Students on successful completion of this course will be able to
- ➢ Review the fundamentals of C language.
- ➢ Analyze the expressions and I/O Statements.
- ➢ Classify arrays and user defined functions.
- ➢ Interpret the linear and non-linear equations.
- ➢ Employ the Interpolations for solving various applications.

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III B. Sc – Physics – Semester–VI – Paper – VII (A-2P) - Paper code: 6003PHY15-A2P

COMPUTATIONAL METHODS AND PROGRAMMING LAB

Students on successful completion of this course will be able to:

- ➢ Outline the computational methods and programming.
- ➢ Define c-programs by using algorithms for various applications.
- ➢ Prepare C-programs to perform certain operations.
- ➢ Implement test and debug programs that uses loops, functions and arrays.

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III B. Sc – Physics – Semester–VI – Paper – VII (A-3) - Paper code: 6003PHY15-A-3

Electronic Instrumentation:

Project work on Electronic Instrumentation

On successful completion of this course students will be able to:

- ➢ Revise the basics of measurements and principles of measurements.
- ➢ Explain analog measuring devices and their significance.
- ➢ Describe digital measuring devices that are useful in real life.
- ➢ Summarize the Cathode ray Oscilloscope and their applications.
- ➢ Outline the signal generators and their laboratory use.
- ➢ Differentiate the bridge circuits and their everyday applications.
- ➢ Design and fabricate electronic circuits using sensors that are useful in our everyday usage.

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Program Outcomes (PO) and Course Outcomes (CO) in B.A. Political Science

The Learning Outcomes-based Curriculum Framework (LOCF) for the program in Political Science provides a base that helps the students to understand the basics of Political Science. The qualification descriptors for a B.A Degree in Political Science Program include the following:

The Student of B.A Political Science would be able to:

➢ Write clearly and with purpose on issues on issues of national, international and domestic politics and public policy.

➢ Participate in political policy discussions as a member of Society

➢ Analyze political policy discussions as a member of Society

➢ Use print and electronic resources to study key local, state national and international policy issues and present results.

➢ Demonstrate competency in modern social Science research.

➢ Display critical thinking, including the ability to from an argument, detect erroneous beliefs about key issues of public policy and politics

➢ Discuss the major theories and concepts of political science its subfields.

➢ Understand the world, the country the society, as well as awareness of ethical problems, social rights values and responsibility to the self and to others.

➢ Understand different disciplines from natural and social Sciences to interdisciplinary approaches in thinking and practice.

➢ Think critically follow innovations and developments in Science and technology, demonstrate personal and organizational entrepreneurship and engage in life-long learning in various subjects.

➢ Communicate effectively in oral, written graphical technological means.

➢ Take individual and team responsibility, function effectively as an individual and

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Department of Political Science UG – Programme & Course Outcomes

I B. A. Political Science - Semester – I - Paper Code – 18POL1

BASIC CONCEPTS OF POLITICAL SCIENCE

Students undergoing this course will be able to:

➢ Explain the Nature and Scope of Political Science.

➢ Analyze Modern State.

➢ Give details of Nations and Nationalism.

➢ Clarify Rights and Citizenship.

➢ Define Freedom, Equality and Justice.

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I B.A – Political Science Semester – II - Paper Code – 18POL2

POLITICAL INSTITUTIONS (CONCEPTS, THEORIES AND INSTITUTIONS)

Students undergoing this course will be able to:

➢ Assess Constitutional law.

➢ Outline Territorial Division - Modern State.

➢ Give details of Federal and Unitary form of Government.

➢ Outline the features of Modern State.

➢ Define Democracy.

➢ Describe the role of Judiciary.

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II B.A – Political Science - Semester – III - Paper Code-18POL3

INDIAN CONSTITUTION

Students undergoing this course will be able to speak about:

➢ Main points Indian National Movement - the Constituent Assembly.

➢ Fundamental Rights.

➢ Kesavananda Bharathi Case - Unitary and Federal features in the Indian Constitution.

➢ Social Revolution in India.

➢ Nature and Role of Higher Judiciary in India.

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II B.A – Political Science - Semester – IV – Paper Code- 3001POL15

INDIAN POLITICAL PROCESS

Students undergoing this course will be able to:

- ➢ Express Theory of Modernization.
- ➢ State Marxian Approaches.
- ➢ Convey Social Structure - Democratic Process, Transition of Caste System - From Hierarchy to Identity - Role of Agency.
- ➢ Give explanation for Caste Communities.
- ➢ Review Party and Electoral Processes in India, Electoral Trends.
- ➢ Assess Determinants of Voting Behavior in India.

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III B.A - Political Science - Semester – V- Paper V – Paper Code – 5001POL5-A

INDIAN POLITICAL THOUGHT

Students undergoing this course will be able to:

- ➢ Distinguish Ancient Indian Political Thought Sources and features of Manu, Kautilya.
- ➢ Speak about Ram Mohan Roy - Social Reform - Pandit Ramabai – Gender.
- ➢ Present The Role of the State and Religious Reform.
- ➢ Increase Religious Nationalism.
- ➢ Make out Democratic Socialism - Radical Humanism.

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III B.A – Political Science - Semester – V Paper – VI – Paper Code 5001POL5-B

WESTERN POLITICAL THOUGHT

Students undergoing this course will be to:

- ➢ Explain Western Political Thought – Plato – Aristotle.
- ➢ Give details of Modern Thought - St. Augustine – Machiavelli.
- ➢ Describe Liberal Democratic Thought - Representative Government.
- ➢ Express Philosophical Idealism.

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III B.A Political Science - Semester – VI Paper – VII - Paper Code – 6001POL15E

<u>LOCAL SELF GOVERNMENT IN ANDHRA PRADESH</u>

Students undergoing this course will be able to:

➢ Describe Local Self-Government in India - Constitutional Provisions.
➢ Speak about 73rd and 74th Constitutional Amendment.
➢ Explain Structure and functions of Panchayat Raj - Municipalities.
➢ Give details of Financial and Administrative spheres.

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III B.A Political Science - Semester – VI - Paper - VIII - Paper Code – 6001POL15-C1

<u>INTERNATIONAL RELATIONS</u>

Students undergoing this course will be able to:

➢ Describe International Relations - Phases.
➢ Explain Causes for the First & Second World War.
➢ Sum up International Relations (1945 onwards) - Rise and Fall of Détente.
➢ Explain International Peace.
➢ Give Details of New International Economic Order.

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III B.A Political Science - Semester –VI – Paper – IX Paper Code – 6001POL15-C2

<u>INDIAN FOREIGN POLICY</u>

Students undergoing this course will be able to:

➢ Give details of Indian Foreign of Policy.
➢ Explain the work of UNO.
➢ Describe India's Relation with USA and China.
➢ Enlighten about SAARC.

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III B.A – Political Science - Semester – VI – Paper Code – 6001POL15-C3

<u>CONTEMPORARY GLOBAL ISSUES</u>

Students undergoing this course will be able to:

➢ Describe Globalization.

➢ Explain the work of International Monetary Fund.

➢ Examine the efforts of World Bank.

➢ Portray the activities of World Trade Organization.

➢ Sum up Contemporary Global and Ecological Issues - International Terrorism.

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<u>ATTAINMENT OF PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes)</u>

B.Sc. Statistics - Programme Learning Outcomes

The student graduating with the Degree B.Sc. Statistics would be able to:

➢ Demonstrate the ability to use skills in Statistics and its related areas of technology for formulating and tackling Statistical related problems and identifying and applying appropriate principles and methodologies to solve a wide range of problems associated with Statistics.

➢ Acquire a fundamental/systematic or coherent understanding of the academic field of Statistics, its different learning areas and applications.

➢ Learn skills in areas related to Statistics and current and emerging developments in the field of Statistics.

➢ Recognize the importance of statistical modeling simulation and computing, and the role of approximation and mathematical approaches to analyze the real world problems.

➢ Plan and execute Statistical related experiments or investigations, analyze and interpret data/information collected using appropriate methods, including the use of appropriate software such as programming languages and purpose-written packages, and report accurately the findings of the experiment/investigations while relating the conclusions/findings to relevant theories of Statistics.

➢ Demonstrate relevant generic skills and global competencies such as problem-solving skills that are required to solve different types of Statistics- related problems with well-defined solutions, and tackle open-ended problems that belong to the disciplinary-area boundaries;

➢ Investigative skills, including skills of independent investigation of Statistics-related issues and problems;

➢ Communication skills involving the ability to listen carefully, to read texts and research papers analytically and to present complex information in a concise manner to different groups/audiences of technical or popular nature;

➢ Analytical skills involving paying attention to detail and ability to construct logical arguments using correct technical language related to Statistics and ability to translate them with popular language when needed;

➢ Personal skills such as the ability to work both independently and in a group.

➢ Demonstrate professional behavior such as being objective, unbiased and truthful in all aspects of work and avoiding unethical, irrational behavior such as fabricating, falsifying or misrepresenting data or committing plagiarism;

➢ The ability to identify the potential ethical issues in work-related situations;

➢ Appreciation of intellectual property, environmental and sustainability issues;

➢ Promoting safe learning and working environment.

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Department of Statistics UG - Programme Outcomes
I Year B. Sc. Programme – (CBCS) Semester – I - Paper Code - 18STA1
DESCRIPTIVE STATISTICS AND PROBABILITY

Students undergoing this course will be able to:
- Give Introduction to Statistics.
- Describe Measures of Central Tendency, dispersion.
- Explain Descriptive Statistics.
- Define Probability.
- Explain Random variable - Bivariate random Variables.

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Semester - II CBCS (I Year) - Paper Code - 18STA2
MATHEMATICAL EXPECTATION AND PROBABILITY DISTRIBUTIONS

Students undergoing this course will be able to:

- Define Mathematical expectation.

- Apply Discrete and Continuous Distributions.

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Semester - III CBCS (II Year) - Paper Code - 18STA3
STATISTICAL METHODS

Students undergoing this course will be able to:
- Predict Curve Fitting.
- Define Correlation.
- Explain Regression.
- Compute Attributes.
- Apply exact sampling distributions.

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Semester - IV CBCS (II Year) - Paper Code - 18STA4
STATISTICAL INFERENCE

Students undergoing this course will be able to:

➢ Define Theory of estimation.

➢ Explain Concepts of statistical hypothesis.

➢ Demonstrate Large & Small sample Tests.

➢ Apply Non parametric tests.

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Semester - V CBCS (III Year) - Paper Code – 5*01STT15A
SAMPLING TECHNIQUES AND DESIGN OF EXPERIMENTS

Students undergoing this course will be able to:

➢ Define Sampling Theory.

➢ Explain Simple Random Sampling.

➢ Compare Stratified Sampling – Systematic sampling.

➢ Describe ANOVA and Design of experiments.

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Semester - V CBCS (III Year) - Paper Code – 5*01STT15B
QUALITY AND RELIABILITY

Students undergoing this course will be able to:

➢ Define Statistical Quality Control.

➢ Apply Variable control charts & Attribute control charts.

➢ Explain Acceptance sampling plans.

➢ Describe Sampling Plans.

➢ Use Reliability.

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Semester - VI CBCS (III Year) - Paper Code – 6*01STT15A

APPLIED STATISTICS

Students undergoing this course will be able to:

➤ Predict Time series.

➤ Use Index Numbers.

➤ Describe Vital Statistics.

➤ Explain official statistics.

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Semester - VI CBCS (III Year) - Paper Code – 6*01STT15A1

OPERATIONS RESEARCH

Students undergoing this course will be able to:

➤ Use Applications and Characteristic of OR.

➤ Define LPP-Formulation-Graphical Method.

➤ Apply Simplex method, Two Phase, Big-M, Dual simplex method.

➤ Get to the bottom of Game Theory.

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Semester - VI CBCS (III Year) - Paper Code – 6*01STT15A2

OPTIMIZATION TECHNIQUES

Students undergoing this course will be able to:

➤ Solve Assignment problems.

➤ Classify Sequencing Problems.

➤ Compute Transportation Problems.

➤ Evaluate Transshipment Problems.

➤ Construct Project Management-CPM-PERT.

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Semester - VI CBCS (III Year) - Paper Code – 6*01STT15A3

Project

After the completion of the project Students will be able to:

➤ Collect Data relevant to the objective

➤ Analyze it

➤ Submit it with comments.

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Semester - VI CBCS (III Year) - Paper Code – 6*01STT15B1

STATISTICS IN TEXTILE TECHNOLOGY

Students undergoing this course will be able to:

- Explain Process-Mapping-Material balancing statement.
- Evaluate Vendor development-Non parametric analysis.
- Apply FMEA – C.V percentage-Sampling 7QCtools.
- Explain QED, ISO9001-MAL, and ISO14001X Impact.
- Describe Inventory control.

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Semester - VI CBCS (III Year) - Paper Code – 6*01STT15B2

DESIGN OF EXPERIMENTS

Students undergoing this course will be able to:

- Construct Factorial experiments - 2^n factorial experiments with n = 2, 3.
- Compute 3^2 & 3^3 factorial experiments.
- Define incomplete block design-BIBD.
- Describe Partially Balanced Incomplete Block Design.
- Explain Youden square design-Strip plot design - Gracco Latin square design.

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I Year B. Sc. Programme – (CBCS) Semester – I – Practical Paper Code - 18STA1P

DESCRIPTIVE STATISTICS AND PROBABILITY

Students undergoing this course will be able to:

- Compute mean, median, mode, quartile deviation, mean deviation, Standard deviation.
- Evaluate Non-central, Central moments, Sheppard corrections, Skewness, Kurtosis.

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Semester - II CBCS (I Year) – Practical Paper Code - 18STA2P

MATHEMATICAL EXPECTATION AND PROBABILITY DISTRIBUTIONS

Students undergoing this course will be able to:

- Formulate Binomial, Poisson, NBD, Geometric , Normal Distributions

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Semester - III CBCS (II Year) – Practical Paper Code - 18STA3P

<u>STATISTICAL METHODS</u>

Students undergoing this course will be able to:

> ➢ Predict straight line, straight line, exponential, power curves.
> ➢ Compute correlation coefficient, Regression lines, Rank correlation coefficient.
> ➢ Evaluate Contingency coefficients.

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Semester - IV CBCS (II Year) – Practical Paper Code - 18STA4P

<u>STATISTICAL INFERENCE</u>

Students undergoing this course will be able to:

> ➢ Compute large sample tests& Small sample tests for means, proportions, standard deviation.
> ➢ Use F-Test for equality of variances & Chi square test for independence of attributes.
> ➢ Apply Non-parametric tests - run test, median test sign tests.

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Semester - V CBCS (III Year) – Practical Paper Code – 5*01STT15AP

<u>SAMPLING TECHNIQUES AND DESIGN OF EXPERIMENTS</u>

Students undergoing this course will be able to:

> ➢ Estimate   population mean, variance by SRSWOR, SRSWR.
> ➢ Compute proportional, optimum allocations with SRSWOR.
> ➢ Apply ANOVA-CRD, RBD, LSD.

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Semester - V CBCS (III Year) –Practical Paper Code – 5*01STT15BP

<u>QUALITY AND RELIABILITY</u>

Students undergoing this course will be able to:

> ➢ Construct Mean, R, P, np, C charts.

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Semester - VI CBCS (III Year) – Practical Paper Code – 6*01STT15AP

<u>APPLIED STATISTICS</u>

Students undergoing this course will be able to:

> ➢ Compute Seasonal Indices-Ratio to trend, Link Relatives method.
> ➢ Construct weighted index numbers, Cost of living Index Numbers.
> ➢ Evaluate Mortality, Fertility, Life table

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Semester - VI CBCS (III Year) – Practical Paper Code – 6*01STT15A1P

<u>OPERATIONS RESEARCH</u>

Students undergoing this course will be able to:

- ➢ Solve LPP - Graphic solution, Simplex, Two phase, Big-M method.
- ➢ Calculate Maxmin & Minmax principle, Dominance property.

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Semester - VI CBCS (III Year) – Practical Paper Code – 6*01STT15A2P

<u>OPTIMIZATION TECHNIQUES</u>

Students undergoing this course will be able to:

- ➢ Solve Assignment, Travelling salesman, Sequencing, Transportation, Modi method.
- ➢ Evaluate CPM method.

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Semester - VI CBCS (III Year) -Practical Paper Code – 6*01STT15B2P

<u>DESIGN OF EXPERIMENTS</u>

Students undergoing this course will be able to:

- ➢ Construct 2^n & 3^n factorial experiments with n = 2, 3 and Incomplete block design-BIBD.

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Libraries Approach in Learning Outcomes Based Curriculum Framework (LOCF)

Smt. B.S.S.Padmaja
Lecturer in library science
Postgraduate Library
ANR College, Gudivada

<u>**Abstract**</u>

Many are already taking advantage of the opportunities provided by the emergence of new technologies and faculty interest in giving students assignments that will engage them in their learning. I believe that the greatest opportunities for librarians lie in deeper connections to the curriculum, adapting to new modes of pedagogy, linking technology-rich and collaborative spaces in libraries to learning, and ensuring that individuals who enrich the library's role in teaching and learning are on staff. Overall, the trajectory is for the increasing integration of librarians and libraries into the teaching and learning program of the college or university.

<u>**Introduction**</u>

Libraries/librarians are essential partners in efforts to improve student learning. Both independently and in collaboration with campus colleagues, libraries articulate learning outcomes, craft instructional experiences, assess student achievement of learning goals, use assessment results to identify practices that impact learning, and employ those practices in future instruction. Traditionally, academic libraries have enjoyed a symbolic "heart of the university" role. Today, changing higher education environments mean stakeholders not only expect academic institutions to achieve high learning goals, they also require them to demonstrate evidence that they have achieved them. The same is true for academic librarians; they, too, need to provide evidence of their value and direct contributions to student learning and success through well-designed outcomes assessment processes. Thus, community college, college, and university librarians no longer rely on their stakeholders' belief in the importance of libraries. Rather, they embrace the challenge of demonstrating the effectiveness of their instructional programs and partnerships. This paper highlights the learning outcomes, instructional strategies, and assessment methods academic librarians employ to help students achieve their learning goals, increase their level of academic success, and progress further and faster through coursework. It describes the leadership role librarians play in campus wide assessment activities; finally it outlines common challenges they face in seeking to effect instructional change.

<u>**Learning Outcomes-based Approach to Curriculum Planning:**</u>

The fundamental premise underlying the learning outcomes-based approach to curriculum planning and development is that the higher education qualifications such as a Bachelor's Degree programs are awarded on the basis of demonstrated achievement of outcomes (expressed in terms of knowledge, understanding, skills, attitudes and values) and academic standards expected of graduates of a program of study. Learning outcomes specify what graduates completing a particular program of study are expected to know, understand and be able to do after completing their program of study.

The expected learning outcomes are used as reference points that would help formulate graduate attributes, qualification descriptors, program learning outcomes and course learning outcomes which in turn will help in curriculum planning and development, and in the design, delivery and review of academic programs. Learning outcomes provide general guidance for articulating the essential learning associated with programs of study and courses within a program.

Learning outcomes-based curriculum approach intends to allow flexibility and innovation in (i) program design and syllabi development by higher education institutions (HEIs), (ii) teaching-learning process, (iii) assessment of students' learning levels, and (iv) periodic program review within a broad framework of agreed and expected graduate attributes, qualification descriptors, program learning outcomes and course learning outcomes.

The overall objectives of the Learning Outcomes-based Curriculum Framework are:

- To help formulate graduate attributes, qualification descriptors, program learning outcomes and course learning outcomes that are expected to be demonstrated by the holder of a qualification;
- To enable prospective students, parents, employers and others to understand the nature and level of learning outcomes (knowledge, skills, attitudes and values) and attributes a graduate of a programs should be capable of demonstrating on successful completion of the given program of study;
- To maintain national standards and international comparability of learning outcomes and academic standards to ensure global competitiveness, and to facilitate student/graduate mobility; and
- To provide higher education institutions an important point of reference for designing teaching-learning strategies, assessing student learning levels, and periodic review of programs and academic standards.

Libraries approach in Learning Outcomes based Curriculum Framework (LOCF), Smt. B. S. S. Padmaja, Lecturer in Library Science, P.G. Dept. Library, A.N.R. College, Gudivada

Role of Libraries:

Libraries serve at least three roles in learning.

First, they serve a practical role in sharing expensive resources. Physical resources such as books and periodicals, films and videos, software and electronic databases, and specialized tools such as projectors, graphics equipment and cameras are shared by a community of users. Human resources--librarians (also called media specialists or information specialists) support instructional programs by responding to the requests of teachers and students (responsive service) and by initiating activities for teachers and students (proactive services). Responsive services include maintaining reserve materials, answering reference questions, providing bibliographic instruction, developing media packages, recommending books or films, and teaching users how to use materials. Proactive services include selective dissemination of information to faculty and students, initiating thematic events, collaborating with instructors to plan instruction, and introducing new instructional methods and tools. In these ways, libraries serve to allow instructors and students to share expensive materials and expertise.

Second, libraries serve a cultural role in preserving and organizing artifacts and ideas. Great works of literature, art, and science must be preserved and made accessible to future learners. Although libraries have traditionally been viewed as facilities for printed artifacts, primary and secondary school libraries often also serve as museums and laboratories. Libraries preserve objects through careful storage procedures, policies of borrowing and use, and repair and maintenance as needed. In addition to preservation, libraries ensure access to materials through indexes, catalogs, and other finding aids that allow learners to locate items appropriate to their needs.

Third, libraries serve social and intellectual roles in bringing together people and ideas. This is distinct from the practical role of sharing resources in that libraries provide a physical place for teachers and learners to meet outside the structure of the classroom, thus allowing people with different perspectives to interact in a knowledge space that is both larger and more general than that shared by any single discipline or affinity group. Browsing a catalog in a library provides a global view for people engaged in specialized study and offers opportunities for serendipitous insights or alternative views. In many respects, libraries serve as centers of interdisciplinary--places shared by learners from all disciplines. Digital libraries extend such interdisciplinarity by making diverse information resources available beyond the physical space shared by groups of learners. One of the greatest benefits of digital libraries is bringing together people with formal, informal, and professional learning missions.

Libraries approach in Learning Outcomes based Curriculum Framework (LOCF), Smt. B. S. S. Padmaja, Lecturer in Library Science, P.G. Dept. Library, A.N.R. College, Gudivada

What libraries need to do adapt to LOCF

1) Strategize:

Definition: Students will develop the dispositions and skills to develop a realistic topic and plan for research; determine what types of sources they should seek, develop an effective search strategy and ask for help when needed.

Rationale: In order to find the information they need, students must first be able to clearly define their information need and understand what resources are available to them.

Specific Outcomes:

Identify library services and availability of resources in order to develop a realistic overall plan for research.

- ➢ Use general information resources to increase familiarity with the topic and disciplinary vocabulary.
- ➢ Define the research topic, question or thesis to achieve a manageable focus appropriate to the assignment criteria, available resources, and evidence needed to support thesis.
- ➢ Identify keywords, synonyms and related terms in order to flexibly search information resources.
- ➢ Identify the range of information source types available (such as peer-reviewed journals, newspaper articles, books, reference sources, etc.), their distinguishing characteristics and intended audiences, in order to select those appropriate based on the information need.
- ➢ Identify the features and content of different research tools (such as databases, catalogs and websites) in order to search those most appropriate to the information need.
- ➢ Develop a strategy for persisting in information seeking despite challenges in order to overcome potential roadblocks in research.

2) Gather and Organize

Definition: Students will effectively search information resources, modify their search or topic when necessary, seek out sources from diverse perspectives and record what they have found.

Rationale: In an era of information abundance, students need to be able to zero in on the appropriate sources and target their search effectively in order to find the most relevant information. It is also important that they seek out diverse points of view in order to broaden their perspectives.

Specific Outcomes:

➢ Identify and use search language, controlled vocabulary or search features appropriate
   to the research tool in order to retrieve relevant results.
➢ Narrow, broaden, or modify their search, research topic, question or thesis based on
   initial search results.
➢ Seek resources from diverse perspectives in order to broaden their frame of reference.
➢ Select appropriate means for recording or saving relevant sources in order to retrieve
   them when needed.
➢ Observe and use pointers to additional information (authors, footnotes, bibliographies,
   controlled vocabulary, etc.) in order to locate additional sources.
➢ Devise a system for keeping up with the latest research on their topic(s).

3) Analyze and Evaluate

Definition: Students will critically evaluate information sources for relevance, accuracy, quality, timeliness, authority, and context as well as appraising whether they have sufficient support for their argument.
Rationale: In order to develop an informed community, users of information must be able to critically evaluate what is presented to them.

Specific Outcomes:

➢ Examine a work's citation and abstract in order to determine its relevance to their research.
➢ Critically examine sources for depth of coverage, quality, and validity in order to select those appropriate to the information need.
➢ Recognize the cultural, physical, social and historical contexts of an information source in order to understand how they influence the content.

4) Use Information Ethically

Definition: Students will demonstrate ethical behavior through their use and creation of information.

Rationale: Cognizance of one's ethical responsibility to others is critical to developing social responsibility.

Specific Outcomes:

- Recognize issues related to privacy, ethics, intellectual property and copyright in order to respect the rights of others, comply with laws and contracts, or safeguard personal information.
- Provide attribution using an appropriate documentation style when quoting or paraphrasing the ideas of others in order to acknowledge the research sources used.
- Apply the author's intended meaning when quoting or paraphrasing in order to accurately represent content.

Expanding Access to Students

A second challenge librarian's face is a lack of documented interactions with students. Unlike faculty who interact with students officially enrolled in their courses or student affairs professionals who can identify which students participate in their programs, librarians do not have as many formalized, documented connections with specific students. Consequently, librarians must seek out interactions with individual students that can be recorded for assessment purposes. For this, they depend on collaborations with their faculty and co-curricular professional counterparts to gain access to groups of students. In many cases, these collaborations provide the only venue for librarians to deliver instruction and gain opportunities to record and track the impact of that instruction on student learning. For many years, librarians have tried to assess the learning of student groups, but they have little access to data about the individual students that make up those groups. Without individual student-level data, librarians are stymied in their efforts to discover connections between the ways students interact with libraries and librarians and the difference those interactions make to their learning.

When academic libraries collaborate with faculty and student affairs professionals to collect data on individual students who participate in library instruction activities or demonstrate information literacy skills through classroom discussions,

individual consultations, online tutorials, peer group discussions, artistic performances, project demonstrations, plans or rehearsals for projects (Saunders, 2008), they can use other institutional data sources to explore possible correlations with other forms of student data such as major, GPA, test scores, or time to graduation. In fact, "until libraries know that student #5 with major A has downloaded B number of articles from database C, checked out D number of books, participated in E workshops and online tutorials, and completed courses F, G, and H, libraries cannot correlate any of those Unlike faculty who interact with students officially enrolled in their courses or student affairs professionals who can identify which students participate in their programs, librarians do not have as many formalized, documented connections with specific students. Because they recognize the limitations of using data that does not allow for tracking of discrete students, librarians are now moving forward with research that uses individual student data, while still maintaining student privacy.

Conclusion

Libraries have long been dedicated to the teaching and learning of information literacy to increase students' academic success. To be confident students are learning, they have established learning outcomes, used multiple pedagogical methods, and assessed student information literacy levels. In recent years, the current higher education environment has offered academic librarians even greater opportunities to accelerate change and re-conceptualize their expertise and roles in the context of student learning—the cornerstone of institutional mission. Academic librarians today continue to expand their role in the teaching, learning, and assessment activities that are core to academic life and that demonstrate their institutional value. Through their traditions of instructional collaboration and strong interdisciplinary perspective, librarians continue to advance meaningful campus-wide pedagogical change; likewise, librarians' commitment to engaging in learning assessment efforts at the class- room, program, discipline, and institutional levels offers a model for future assessments partnerships in higher education.

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OUTCOME-BASED EDUCATION – ROLE OF LIBRARY

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INTRODUCTION

The Outcome-based Education (OBE) was innovated by a sociologist named Spady (1994). In his words " An Outcome-based Curriculum means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction and assessment to make sure this learning ultimately happens".

The concept of OBE made its way into the educational system even before the decentralization within educational institutions. The long hours spent in class, the number of years spent in schooling, courses opted, money spent with no steady academic outcomes were questioned. In OBE, not only were they answered but it also provided a new perspective and a way to get into learner's mind. Rote-learning is replaced by student-centered, design down-deliver up, clarity in focus, expanded opportunities and exceeding expectations.

Librarian works and students learn. A librarian works with the students as a mentor, coach and guide to the learner in navigating through the complex-information-ecosystem at different stages of their cognitive and personal development. A librarian has a greater responsibility in delivering the objectives of Outcome Based Education thereby motivating the learner towards the advantages he will be benefitted with.

OBJECTIVE

This paper aims to represent the importance of role and responsibility of a Librarian in the Outcome-Based Education and it's possibilities and challenges in the present educational system. This paper discusses the drawbacks of the current educational system and why is it necessary to take a step and provide meaningful and valuable education to the knowledge-seeker or the learner or more appropriately the student.

DISCUSSION

OBE, without any doubt, is a rival against the conservative idea of teaching and Learning. It is a competency-based education which got blown up, keeping criticism at bay. This growth was only with the help of progressive educators who got a good grip of it. Today OBE is a firestorm with a great clarity of focus. Institutions are adopting and implementing OBE on a massive scale.

Traditional system of education fails to measure the capability of the students. It only assess the student's learning by allowing to choose pre-choosen given choices instead of creative answering. OBE is thus able to measure What the students are capable of doing.

OBE gets beyond structured tasks. It demands the students to demonstrate his / her skills through more challenging tasks while writing proposals and analyzing case studies that require more complex tasks.

Outcome mapping with attainment analysis, a crucial domain of OBE consumed a huge amount of effort. Manual calculations of attainment leads to errors. It leads to misjudging of outcomes through the course or curricula.

A proficient OBE maps at five different levels by aligning itself to the Bloom's Taxonomy's cognitive, effective and psychometric domains. These 5-level of mapping offers a level of control that is unprecedented. It completely changes the way a teacher looks at workflows and tasks related to OBE.

Bloom's Taxonomy

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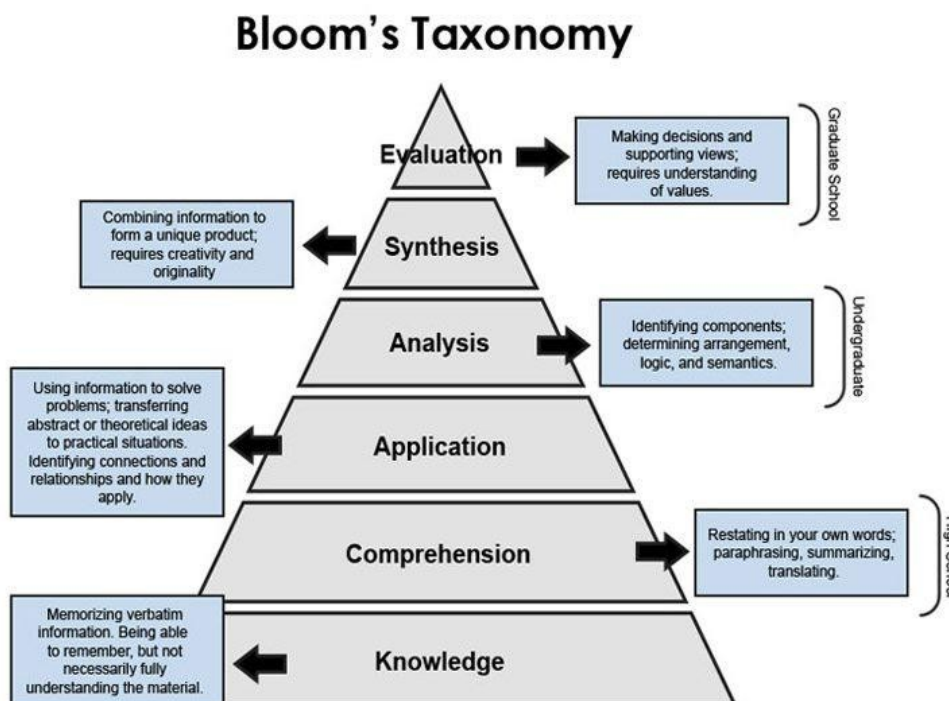
Evolution of Bloom's Taxonomy

Original Bloom's	Revised Bloom's	Digital Bloom's
Evaluation	Creating	programming, filming, animating, blogging, video blogging, mixing, re-mixing, wiki-ing, publishing, videocasting, podcasting, directing, boradcasting
Synthesis	Evaluating	blog commenting, reviewing, posting, moderating, collaborating, networking, refactoring, testing.
Analysis	Analyzing	mashing, linking, validating, reverse engineering, cracking, media clipping
Application	Applying	running, loading, playing, operating, hacking, uploading, sharing, editing
Comprehension	Understanding	advanced searches, Boolean searches, blog journaling, twittering, categorizing, tagging, commenting, annotating, subscribing
Knowledge	Remembering	bullet pointing, highlighting, bookmaking, social networking, social bookmarking, favorite-ing, local bookmarking, searching, googling

An extensive search for the written documents about measuring the outcomes in libraries gave a few results. An earliest study by Dervin (1985), "How Libraries Help" had the objective of finding how learners benefited from the libraries in California. Comparison and distinctions were made among the types of libraries viz., public, school and academic, in the study.

Dervin identified 16 benefits from libraries that she labeled them as "helps". Dervin intended to know what the Users (learners) did with the library information and the end result. She deduced that the information was only a means to an end and not an end in itself.

A "help" was identified in a more generic psycho sociological way than a descriptive action oriented focus. Some examples were :

  (i) got understanding / ideas.

  (ii) got support material / emotional control

  (iii) found direction / reached goals / got the necessary skills

  (iv) felt connected

  (v) made contact with others in exchanging information

  (vi) got happiness / relaxation etc.,.

The reasons for visiting the library were compared with the 16 helps. She found that the people who visit library for projects say that they found ideas and understandings, for

seeking jobs say that they found support material and felt connected, for compiling notes from different source of materials found necessary material and made contact with others in exchanging information.

Bertot and McClure (1998) demonstrated the integral role of libraries in community life and identified the degree to which libraries have formed partnerships with social service and community groups. The study made by Usherwood and Linley (1999) showed that libraries support education, careers, job training and literacy.

With the evolution in technology, the structure of library too was undergoing a series of changes incorporating a plethora of tools in its advancements towards a digitized platform slowing moving away from the traditional print-media to digital-media. The digital platform reduces the cost of replacement of "old texts" with online content wherein the same content can be viewed simultaneously by several learners. The Librarians as a media specialists can now deliver their knowledge and use of their instructional and information technologies plus love of literature, creates a synergy that foster student achievement. The role and responsibilities of a librarian are now more demanding than ever. He now have the opportunity to introduce new technologies, instructional strategies and innovations that are central to student learning and thus now he can provide an exciting opportunity to the learners towards become more competent users of ideas and information, informed decision makers and lifelong learners. This is the central idea of the Outcome Based Education. He – learn, teach, collaborate, read, listen, advocate, innovate, reflect and rejoice in being accomplished.These new initiatives shifts towards a more flexible learning environment, increased understanding about how learners study, need of more complex skills and increasing diverse set of learners. Research has shown there is direct correlation between school library programs and student achievement. It is no wonder that the accomplished librarians are passionate about their profession and are always in forefront in finding more innovative ways and methods in meeting the needs of the present and future generations.

CHALLENGES

In this homogonous task of building an indispensable block of learning community, a librarian faces several challenges:

- ➤ Issues of intellectual property, internet privacy and safety.
- ➤ Ethical use of information
- ➤ Promoting the core values of library – equity, outreach, advocacy and diversity.

- Delivery of services through the latest informational and instructional technologies.

- Reflective practice to improve student learning.

- The Assessment challenges are:

- Can learning outcomes be assessed?

- Can learning outcomes be assessed separately from other outcomes?

- Where do we see learning outcomes?

- What are the qualities of an assessable construct?

- Criteria and standards.

- Validity? Reliability? Fairness?

- Claims making.

National Employability Reports time and again reveal the sad state of affairs about the employability of Indian graduates in particular, IT-based.

- Only 3.84% of engineers are employable in software-related jobs at start-ups.

- Around 3% engineers possess new-age skills in areas such as AI, Machine Learning, Data engineering and Mobile technologies. On an aggregate level, employability in these areas is around 1.5-1.7%.

- US has a much higher proportion of engineers, almost four times, who have good programming skills as compared to India.

- A much higher percentage of Indian engineers (37.7%) cannot write an error-free code, as compared to China (10.35%).

- Only 40% of engineering graduates end up doing an internship and 36% do any projects beyond coursework.

This plummeting figure clearly indicates the entire scope of education should be expanded where skills are expanded beyond inputs. In spite of gaining educational experience, the pool of educated graduates lack necessary skills to adapt themselves to the changing times and employability. Thus, Outcome-Based Education blended with the new school of thought and aimed at improving students. This calls for systemic long term changes in higher education in India.

IMPORTANCE OF OBE-Current Scenario

www.knowledgewillneverend.blogspot.com
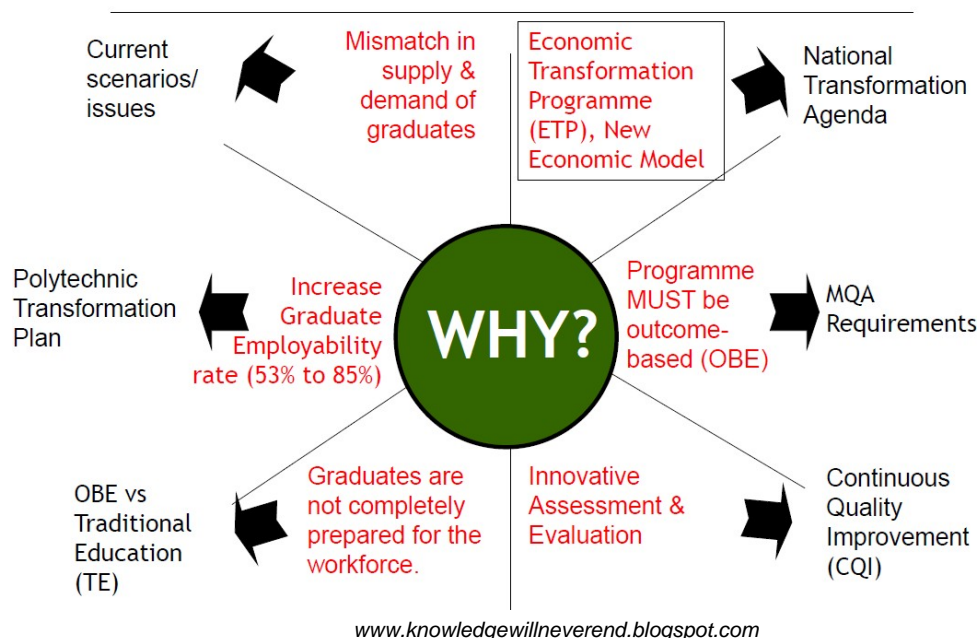
Librarians are well aware that the students come from varied family structures. They understand that the student's needs differ based on their family structure. They encourage the students to check out books at various reading levels as they knew that the home situation affects student's needs for information and resources. They discover the individual student's interests and thus build a relationship in fostering their learning attitude.

An essential dissect in describing the accomplished practice concerns the difference between the analysis and the practice of teaching. The analysis tend to divide the profession into a number of discrete duties like designing learning activities, providing quality explanation, monitoring student's progress etc.,. While the teaching tends to a seamless activity.

The accomplished teacher through his decisions shape learning. Through study, research and experience a teacher can bring into his classroom continuing developments in the world regarding a specific course he teaches. The librarian can then assess how accomplished a student in acquiring the necessary skills and knowledge required for his study and how apt is he to face the competitive world and also how best the library helped him to achieve the goal.

Certain standards and criteria can now be framed in the form of a framework in guiding the learners the way how to achieve their goal effectively in providing the required resources, material and support. The library now becomes a backbone for their achievement.

A model of institutional impacts on assessment, learning and teaching
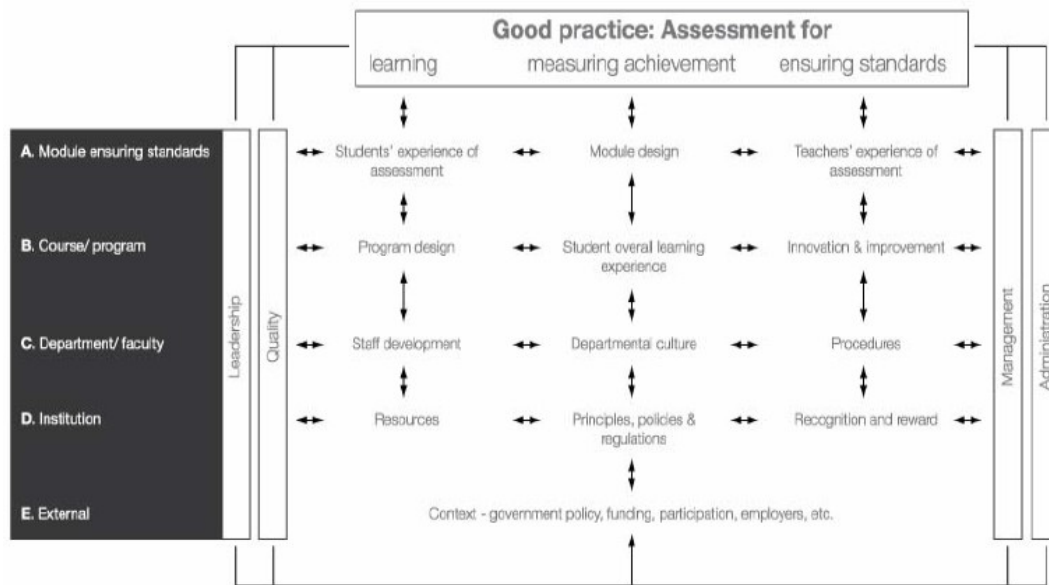
Source: modified from Joughin and Macdonald, 2004

CONCLUSION

Libraries by providing necessary inputs and resources to the students thus play an immensive responsible role in the Outcome-Based Education. Upon conducting Staff and Student surveys, they review priorities on an ongoing basis in order to meet immediate and long-range strategic goals.

In order to implement OBE the librarians thus engage the administrators, the teachers, the students, the staff and the members of the greater community about resources, programs and technologies and always consider the suggestions and study possible refinements to cater to the needs that contribute directly or indirectly to the instruction and influences of the student's learning capabilities.

By developing the habit of introspective self-assessment they constantly reinvigorate themselves and take responsibility for the growth and development of the library, institution and their self.

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प्रक्-शास्त्रि-शायां (UG)संस्कृतभाषायाः पाठ्यांशानां संभावित अध्ययन-फलम्

Dr.PANUGANTI SIVAKUMAR

बोधनक्षेत्रे यास्याः कस्याः अपिभाषायाः अध्ययने एकस्य छात्रस्यअधीतविषयस्य नैपुण्यस्थायींश्रवणं (Listening), भाषणं (Speaking), पठनं (Reading)लेखनं (Writing) इत्येतैः कौशलैः प्रमाणीक्रियते । अधुना अस्मिन् प्रक्-शास्त्रि (UG)विद्यादशायांस्थरत्रयसंबद्ध अर्थवर्षात्मकस्याः संस्कृतभाषायाः पाठ्यांशान् आधारीकृत्य एकैकस्य पाठ्यांशस्य अध्ययन-प्रतिफलं कथं भविष्यतीति अधो प्रकटीक्रियते ।

अर्थवर्षात्मकस्थरः (semester)	भागः (Unit)	पाठ्यांशः (Lesson)	अध्ययन-प्रतिफलम् (learning outcome)
I	1 (प्राचीन साहित्यम्)	• अभिज्ञानम् • आतिथ्यम्	एतेषां पाठ्यांशानां अध्ययनेन छात्रैः श्रवण-कौशलं, श्रवण-कौशलं भारतीय सांस्कृतिक विषयंज्ञानं च प्रातुं शक्तन्ते।
I	2 (आधुनिक साहित्यम्)	• उन्नतिः भारती-भूषणम् • विविक्तपुष्पकरण्डः	एतेभ्यः पाठ्यांशेभ्यः छात्रः पठन-कौशलं, श्रवण-कौशलं च संपादयति, एवञ्च संस्कृतभाषायां आधुनिक साहित्य रचनाशैलीमपि अवन्तुं शक्नोति।
I	3 (गद्यकानव्यम्)	• पञ्चतन्त्रम् • मूर्खब्रह्मणकथा • मूर्खपण्डितकथा	एतेभ्यः पाठ्यांशेभ्यः छात्रैः पठन-कौशलं, समाजे व्यवहारज्ञानेन भाषण-कौशलं अपि प्राप्यन्ते ।
I	4 (व्याकरण भागः)	• अजन्तशब्दाः (देव, कवि, भानु, धातृ, पितृ, गो, रमा, मति) • धातवः (भू, गम्, ष्ठा, दृशिर्, लभ्, मुद्, अस्, भा)	छात्रैः पूर्व भागेषु विषयेषु ये ये शब्दाः धातवः चअधीताः तान् बौद्धौ संस्थाप्य अस्मिन् भागे दत्तानां शब्दानां अभ्यासः क्रियते । तस्मात् छात्रस्य लेखन-कौशलस्य उन्नतिः भवति।
I	5 (व्याकरण भागः)	• सन्धयः (अच्-हल्सन्धयः) • समासाः (द्वन्द-तत्पुरुष-कर्मधारय-द्विदु)	एतस्मादपि छात्रस्य संस्कृत शब्दानां ज्ञानं वर्द्धनं भवति तथापि भिन्न-भिन्न शब्दानां योजयित्वा नूतन शब्दानां रचयितुं शक्यते । एतस्मात् छात्रेषु लेखन-कौशलं द्विगुणीकृतं भवति।

II	1 (पद्यविभागः)	• रघुवंशम्	एतस्मात् अध्ययनात् छात्रस्य श्रवण, पठन कौशलयोः उन्नतिः भवति।
II	2	• गङ्गावतरणम्-चम्पूरामायणम् • उपदेशामृतम्	एतस्मात् पठन कौशलस्य वृद्धिः भवति । एवञ्च समाजे कथं प्रवर्तितव्यमिति च ज्ञायते ।
II	3 (गद्यम् नवला)	• पुष्पोद्भवचरित्रम् • कृतिफलं-कालाय तस्मै नमः	एतस्मात् साक्षात् पठन कौशस्य वृद्धिः भवति। गद्य साहित्यस्य रचना शैलीं अपि ज्ञातुं शक्यते, तद्द्वारा लेखन-कौशलस्य वृद्धि प्राप्नोति।
III	1 (प्राचीनरूपकविभागः)	• दूतवाक्यम्	एतस्मात् स्पष्टतया छात्रस्य भाषण-कौशलस्य, श्रवण-कौशलस्य च उन्नतिः भवति। एवञ्च संस्कतभाषायां प्राचीन नाट-साहित्यशैली, पात्रचित्रणं कथं भवतीति अवगन्तुं शक्यते।
III	2 (प्राचीनरूपकविभागः)	• अशनिनिरासम्	एतस्य अध्ययनेन छात्रस्य भाषण-कौशलस्य, श्रवण-कौशलस्य च वृद्धिः भवति। आधुनिक संस्कृतसाहित्ये नूतन शब्दानां प्रयोगमपि द्रष्टुं शक्यते येन छात्रस्य लेखन-कौशलस्य उन्नतिः भवति।
III	3	• उपनिषदादेशः	एतस्य अध्ययनेन छात्र भाषणं, श्रवणं, पठनं च कौशलानां वृद्धिः भवति।
III	4 अलङ्काराः	• अलङ्काराः(उपमा, अनन्वयः, उत्प्रेक्षा,दीपकम्, अप्रस्तुतप्रशंसा, दृष्टान्तः,	एतस्य विभागस्य अध्ययनेन छात्र पठनं, लोखनं, भाषणं, श्रवण-कौशलानां उन्नतिः भवति। विविध रीत्या व्यावहारशैलीमपि अवगन्तुं शक्यते।
III	5 (महाकवि-शास्त्रकारविभागः)	• पाणिनिः • कौटिल्यः • भरतमुनिः • भारविः • माघः • भवभूतिः • **व्याकरण भागः** • हलन्त-शब्दाः • कृत्प्रत्ययाः	एतस्य विभागस्य अध्ययनेन छात्रस्य पठन-कौशलस्य वृद्धिः भवति । एवञ्च भारतीय साहित्य, वैज्ञानिक शास्त्र काराणां परिचयः अपि भवति । ------------------------------- एतादृश व्याकरणज्ञानेन छात्रस्य पठन, लेखन-कौशलस्य उन्नतिः भवति।

ATTAINMENT OF PO (Program Outcomes), PSO (Program Specific Outcomes), and CO (Course Outcomes)

The Department of Commerce provides students with the knowledge, tools of analysis and skills with which to understand and participate in the modern business and economics world, to prepare them to achieve success in their professional careers.

Students pursuing B. Com. Degree will be knowledgeable across the core requirements of the degree. They will be able to:

➢ Demonstrate knowledge of key concepts underlying quantitative decision analysis.

➢ Apply statistical skills necessary for analysis of a range of problems in economics, accounting, marketing, banking, management, costing, income tax and finance.

➢ Demonstrate knowledge of the theories, concepts and findings of the specializations.

➢ Evaluate national debates and discussions on economic, commercial, and business issues.

They will have the capacity to:

➢ Work collaboratively and productively in groups.

➢ Apply critical and analytical skills and methods to the identification, evaluation and resolution of complex problems.

➢ Engage confidently in self-directed study and research and be effective decision makers.

➢ Communicate ideas effectively in both written and oral formats.

➢ Operate effectively in multicultural and diverse environments.

➢ Effectively use information from diverse sources.

➢ Be proficient in the use of appropriate information technologies.

➢ Critically evaluate new ideas, research findings, methodologies and theoretical frameworks in a specialized field of study.

➢ Recognize and understand the ethical responsibilities of individuals and organizations in society.

➢ Strategic and critical thinking in relation to business and commerce related issues.

➢ Skilled in the use of computer systems and software used in commerce and business through practical assignments, exercises and demonstrations.

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Department of Commerce UG Programme Outcomes

I Year B.Com Program - Semester – I Paper Code – 18FA11

Fundamentals of Accounting-I

At the end of the Semester the student is expected to know:

- ➢ The need for accounting – concepts - conventions - Classification.
- ➢ Subsidiary Books – types.
- ➢ Trail Balance and Rectification of Errors.
- ➢ Bank Reconciliation - Reasons - Problems.
- ➢ Final Accounts.

<><><>

I Year B.Com Program - Semester – I Paper Code – 18BOG1

Business Organization

At the end of the Semester the student is expected to know:

- ➢ The Concepts & Features of Business — Industry – Classification – Relationship of Trade, Industry and Commerce.
- ➢ Business Functions and Entrepreneurship.
- ➢ Forms of Business Organizations.
- ➢ Joint Stock Company - Differences between Private Ltd and Public Ltd Companies.
- ➢ Company Incorporation.

<><><>

I Year B.Com Program - Semester – I Paper Code – 18BOM1

Business Organization & Management (for Compts.)

At the end of the Semester the student is expected to know:

- ➢ The Concepts & Features of Business — Industry – Classification – Relationship of Trade, Industry and Commerce.
- ➢ Business Functions and Entrepreneurship.
- ➢ Forms of Business Organizations.

- Joint Stock Company - Differences between Private Ltd and Public Ltd Companies.
- Company Incorporation.
- Delegations – Decentralization.
- Levels of Management.
- Make in India.
- Product Life Cycle.
- Marketing Mix.

<><><>

I Year B.Com Program - Semester – I Paper Code – 18BE11

Business Economics-I

At the end of the Semester the student is expected to know about:

- Business Economics
- Demand analysis – Types
- Cost and Revenue analysis
- Break-Even analysis

<><><>

I Year B.Com Program - Semester – II Paper Code – 18FA22

Fundamentals of Accounting-II

At the end of the Semester the student is expected to know about:

- Depreciation Methods.
- Types of provisions and Reserves.
- Bills of Exchange – problems.
- Consignment Accounts.
- Joint Venture Accounts.

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I Year B.Com Program - Semester – II Paper Code – 18BEN2

Business Environment

At the end of the Semester the student is expected to know about:

➢ Business Environment.
➢ Economic growth.
➢ Development and planning.
➢ Economic policies

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I Year B.Com Program - Semester – I Paper Code – 18BEC2

Business Economics-II

At the end of the Semester the student is expected to know about:

➢ Production and Costs of Business economics.
➢ Market Structure – types.
➢ National income and Economic Systems.
➢ Structural Reforms in India.

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II Year B.Com Program - Semester – III Paper Code – 18CAT3

Corporate Accounting

At the end of the Semester the student is expected to know about:

➢ Accounting for Share capital.
➢ Issue and Redemption of Debentures.
➢ Valutaion of Goodwill and Shares.
➢ Company final Accounts – problems.
➢ Provisions of Companies Act, 2013.

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II Year B.Com Program - Semester – III Paper Code – 18BST3

Business Statistics

At the end of the Semester the student is expected to know about:

➢ Introductions to Statistics.

➢ Measures of Central Tendency.

➢ Measures of Dispersion and Skewness.

➢ Measure of Relation.

➢ Time Series Analysis and Index numbers.

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II Year B.Com Program - Semester – III Paper Code – 18BTP3

Banking Theory & Practice

At the end of the Semester the student is expected to know about:

➢ Banking - Systems - Development in India.

➢ Relationship between Bankers to Customer.

➢ Collecting Banker and Paying Banker.

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II Year B.Com Program - Semester – IV Paper Code – 18ASO4

Accounting for Service Organizations

At the end of the Semester the student is expected to know about:

➢ Non-Trading Service Organizations

➢ Electricity Supply Companies - Problems

➢ Bank accounts - problems

➢ Insurance Companies - problems.

➢ General Insurance – problems.

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II Year B.Com Program - Semester – IV Paper Code – 18BLA4

Business Laws

At the end of the Semester the student is expected to know about:

- ➢ Indian Contract Act,1872 - Offer and Acceptance - Capacity of the Parties.
- ➢ Sales of Goods Act 1930.
- ➢ Cyber Law and Procedures.

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II Year B.Com Program - Semester – IV Paper Code – 18ITX4

Income Tax

At the end of the Semester the student is expected to know about:

- ➢ Basic concepts of Income tax - Salary Income - House Property - Capital Gains - Income from other sources - Income tax Problems.

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II Year B.Com Program - Semester – IV Paper Code – 18ES4

Entrepreneurship

At the end of the Semester the student will be able to understand:

- ➢ Entrepreneur vs Entrepreneurship.
- ➢ Sources of New Ideas' Generation.
- ➢ Preparation of Project Report.
- ➢ Small Scale Industries Project Assistance.
- ➢ Government Processing – Tax Advantages.

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III Year B.Com Program - Semester – V Paper Code – SBC E 5.1 A

Business Leadership

At the end of the Semester the student is expected to know about:

➢ Leadership - Traits, Skills and Styles- Leadership Development - Qualities of a Good Leader.

➢ Decision-Making and Leadership.

➢ Profiles of a few Inspirational Leaders in Business

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III Year B.Com Program - Semester – V Paper Code – DSC - 1E 5.2

Cost Accounting

At the end of the Semester the student is expected to know:

➢ How to Prepare a Cost Sheet.

➢ Elements of Cost - Material control – techniques – Methods of pricing

➢ Labour and Overheads

➢ Costing - Methods – Techniques

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III Year B.Com Program - Semester – V Paper Code – DSC - 1E 5.3

Taxation (Compts.)

At the end of the Semester the student is expected to know:

➢ Tax structure in India – Planning – Recovery.

➢ Computation of Income.

➢ Value Added Tax - Goods and Service Tax.

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III Year B.Com Program - Semester – V Paper Code – DSC: 2E

GOODS & SERVICE TAX FUNDAMENTALS

At the end of the Semester the student is expected to know:

- ➢ GST - Concepts – Justification for introduction of GST - Process of Introduction of GST - Constitutional Amendments.
- ➢ Taxes and Duties outside the purview of GST.
- ➢ Inter-State Goods and Services Tax.
- ➢ Time of Supply of Goods & Services.

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III Year B.Com Program - Semester – V Paper Code – DSC 3E 5.4

Commercial Geography

At the end of the Semester the student is expected to know:

- ➢ The Earth: Internal structure – Evolution – Environmental pollution - Global Warming – Protective Measures.
- ➢ India – Agriculture – Problems - Development.
- ➢ India – Forestry - Status of Forests in Andhra Pradesh –Conservation - Aforestation.
- ➢ India – Minerals and Mining –– District- wise Profile.
- ➢ India – Water Resources – Rational use – Interlinking of Rivers - Experience of India and Andhra Pradesh.

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III Year B.Com Program - Semester – V

Cluster Elective - 5

Banking and Financial Services

Central Banking- Paper Code DSC F 5.5

At the end of the Semester the student is expected to know:

- ➢ Evolution and Functions of Central Banks in Developed and Developing countries.
- ➢ Reserve Bank of India.
- ➢ Monetary and Credit Policies.

➢ Inflation and price control.

➢ Supervision of Banks

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III Year B.Com Program - Semester – V

Rural and Farm Credit- Paper Code – DSC F 5.6

➢ Rural Credit – Financial Inclusion - Rural Credit Agencies – Self Help Groups

➢ Farm Credit - Kisan Credit Card (KCC) Scheme.

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III Year B.Com Program - Semester – VI Paper Code – SBC G 6.1D

Media Management

At the end of the Semester the student is expected to know:

➢ Media Management- Role of Media -- Media types - Unique features of print media - Radio and Television - Teleconferencing - Media Technology: Internet, mobile phones, interactive television.

➢ Media Marketing - Penetration – Revenue expenditure in media - Selling and buying space and time on media.

➢ Media and Ethics: Ethical issues related to Media - Intellectual Property Rights (IPR) and New Media - Security issues and new media.

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III Year B.Com Program - Semester – VI Paper Code – DSC 1 G 6.2

<u>Marketing</u>

At the end of the Semester the student is expected to know:

➢ Concepts of Marketing

➢ Consumer Markets and Buyer Behaviour

➢ Product Management- Product Life Cycle - Design, Branding, Packaging and Labeling.

➢ Pricing Decision- pricing strategies - Skimming and Penetration pricing.

➢ Promotion and Distribution.

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III Year B.Com Program - Semester – VI Paper Code – DSC 2G 6.3

<u>Auditing</u>

At the end of the Semester the student is expected to know:

➢ Auditing: Meaning – Objectives – Importance - Types of Audit - Planning of Audit

➢ Vouching and Investigation: - Auditing vs. Investigation

➢ Company Audit and Auditors Report - Auditor's Qualifications

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III Year B.Com Program - Semester – VI Paper Code – DSC 3G 6.4

<u>Management Accounting</u>

At the end of the Semester the student is expected to know:

➢ Management Accounting - Financial Statement analysis and interpretation

➢ Ratio Analysis: Classification, Importance and limitations.

➢ Fund Flow Statement – Concepts.

➢ Cash Flow Statement – Concepts.

➢ Break-Even Analysis and Decision Making

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III Year B.Com Program - Semester – VI

Cluster Elective -5A:

Banking and Financial Services

Financial Services - Paper Code - DSC H 6.5

At the end of the Semester the student is expected to know:

- ➢ Financial Services - Role of Financial Services - Banking and Non Banking Companies.
- ➢ Merchant Banking Services
- ➢ Leasing and Hire-Purchase
- ➢ Credit Rating: Purpose – Types – Credit Rating Symbols – Agencies
- ➢ Other Financial Services - Factoring and Forfeiting.

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III Year B.Com Program - Semester – VI Paper Code – DSC H 6.6

Marketing of Financial Services

At the end of the Semester the student is expected to know:

- ➢ Difference between Goods and Services – Integrated Service Management – Service Elements.
- ➢ Constructing Service Environment –Service Quality and Productivity – Customer Loyalty.
- ➢ Pricing and Promotion Strategies – Marketing Planning and Control for services.
- ➢ Distributing Services: Cost and Revenue Management
- ➢ Retail Financial Services.

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डॉ.के. जास्मिन
हिन्दी प्राध्यापिका
मांटिस्सोरि कालेज
विजयवाडा

सीखने के प्रतिफल (Learning Outcomes)

By Madhav Patel | दिसम्बर 27, 2018

विद्यालयों में अध्यनरत छात्रों को गुणवत्तापूर्ण शिक्षा प्रदान करने उद्देश्य से राष्ट्रीय एवं राज्य स्तर पर कई नए प्रयास किये जाते है इन सबका उद्देश्य विद्यालयी छात्रों में शैक्षिक गुणवत्ता का विकास और अच्छी उपलब्धि स्तर को हासिल करना होता हैं जिससे छात्रों के समग्र मूल्यांकन के माध्यम से विकास की एक निश्चित योजना बनाकर उनका उन्नयन किया जा सके किन्तु अवलोकन के द्वारा अधिकांशतः सोच के उलट तस्वीर देखने को मिलती है प्रायः ये देखने मे आता है कि शिक्षकों जो प्रशिक्षण के दोरान बताया व सिखाया जाता है उसका वह 25% भी अपने विद्यालयों में सांझा नही करते हैं तथा परंपरागत शिक्षण शैली अपनाते है उन्हें ये समझ नहीं आता कि शिक्षण की विभिन्न पद्धतियो से शिक्षण गुणवत्ता व उसके विकास की गति को बल मिलने के साथ साथ सुनियोजित तरीके से अकादमिक प्रक्रियाओं द्वारा छात्रों को भयमुक्त एवं आनंददायी वातावरण में सीखने के अवसर अधिक मिलेंगे सीखना वास्तव में एक सतत व व्यापक जीवनपयत चलने वाली प्रक्रिया है वुडवर्थ के अनुसार ''सीखना विकास की प्रक्रिया है'' विगत तीन दशकों में सभी के लिए शिक्षा (इ.एफ.ए.) पर साहित्य ने शिक्षा की गुणवत्ता पर ज़ोर दिया है। इस पर नामांकन, ठहराव और उपलब्धि की दृष्टि से विचार किया गया। इसके अतिरिक्त शिक्षार्थियों की वांछनीय विशेषताओ, सीखने की प्रक्रिया, शैक्षिक सुविधाओं सीखने सिखाने सामग्री, विषय सामग्री, प्रशासन एवं प्रबंधन तथा सीखने के प्रतिफलों को भी सम्मिलित किया गया। सर्वशिक्षा अभियान तथा निःशुल्क एवं अनिवार्य बाल शिक्षा का अधिकार अधिनियम के अंतर्गत शिक्षा की गुणवत्ता में सुधार के लिए सतत रूप से ध्यान केंद्रिय किया गया। राष्ट्रीय शैक्षिक अनसुंधान और प्रशिक्षा का अधिकार अधिनियम के अंतर्गत शिक्षा की गुणवत्ता में सुधार के लिए सतत रूप से ध्यान केंद्रित किया गया। राष्ट्रीय शैक्षिक अनुसंधान और प्रशिक्षण परिषद (एनसीईआरटी) द्वारा विकसित सभी राष्ट्रीय

शैक्षिक अनुसंधान और प्रशिक्षण परिषद (एनसीईआरटी) द्वारा विकसित सभी राष्ट्रीय पाठ्यचर्या की रूपरेखाओ तथा अन्य महत्वपूर्ण सरकारी पहलुओ में गुणवत्ता को प्रमुख लक्ष्य के रूप में शामिल किया गया है। इनमें विचार किया गया है कि सभी बच्चों को सीखने के मूलभूत अवसर उपलब्ध हों, साथ ही वैश्विक नागरिक बनने के लिए आवश्यक सभी हस्तांतरणीय कोशल अर्जित करने के अवसर मिलें। यह उन लक्ष्यों को नियत करने की माँग करता है जो स्पष्ट तथा मापने योग्य हों। अतः शैक्षिक प्रणाली के भीतर राष्ट्रीय एवं राज्य शैक्षिक निकायों को सूचित करना आवश्यक है कि प्रशासकों, योजनाकारों और नीति-निर्माताओ द्वारा लिए गए निर्णयों पर व्यवस्था कितने सचारू रूप से कार्य कर रही है। राष्ट्रीय एवं राज्य स्तर पर किए गए विभिन्न शैक्षिक सर्वेक्षण इसी दिशा में की गई पहल है। इसके अतिरिक्त, शाला एवं सामुदायिक स्तर के विभिन्न साझेदार भी शिक्षा में गुणवत्ता सुधार की दिशा में महत्वपूर्ण भूमिका निभतें हैं। हाल ही की ग्लोबल मनिटरिंग रिपोर्ट (जी.एम.आर.2015) के अनुसार भारत सहित अन्य विकासशील देशों में 'शिक्षा तक पहुचँ' में प्रभावी सुधार हुआ है। हालाँकि गुणवत्ता अभी भी चिंता का कारण है। भारत में किए गए विभिन्न उपलब्धि सर्वेक्षण जैसे 'असर' (ASER) ने ने विभिन्न राज्यों में विद्यार्थियों के बुनियादी कोशलों की उपलब्धि सर्वेक्षण (एम.एच.आर.डी./2014) ने भी इसकी पुष्टि की है। सर्वशिक्षा अभियान की, विगत कुछ वर्षो में आयोजित जॉइंट रिव्यू मिशन (जे.आर.एम) की रिपोटें भी इस बात का उल्लेख करती हैं कि राज्यों और संघ सासित प्रदेशों द्वारा शिक्षकों की नियुक्ति, समय पर शैक्षिक संसाधनों की आपूर्ति और नियमित मॉनिटरिंग के बावजूद भी बच्चों के सीखने के स्तर और अपेक्षित स्तर में फ़ासला रहा है। इस प्रतिवेदन में बच्चों के पठन स्तर और गणितीय कोशलों में गिरावट दर्ज की गई है, जो कि वर्तमान चिंता का प्रमुख विषय हैं। इस चिंता के मद्देनज़र जिस तरह से गुणवत्ता को 'सीखने के प्रतिफल' के रूप में परिभाषित किया गया है (जिन्हें सभी के द्वारा प्राप्त किया जाना है), खासकर पठन, गणितीय योग्यता और बुनियादी जीवन कौशल अत्यंत महत्वपूर्ण है। बारहवीं पंचवर्षीय योजना में प्राथमिक शिक्षा के एक मख्यु लक्ष्य के रूप में बनि यादी अधिगम (सीखना) और साथ ही गुणवत्ता के उद्देश्यों की प्राप्ति के लिए सीखने के नियमित आकलन पर ज़ोर दिया गया है। यह सतत विकास के लक्ष्य तथा जी.एम.आर - 2015 की सिफ़ारिशों के भी अनुरूप है। इस प्रकार से क्षेत्रीय, राष्ट्रीय एव अंतरराष्ट्रीय स्तर पर

सीखने के प्रितिफलों के मूल्यांकन के माध्यम से गुणवत्ता पर नज़र बनाए रखना आवश्यक है। इसके साथ ही आवश्यक है कि जमीनी स्तर पर शामिल साझेदार जैसे अभिभावक और सामुदाय के लोग सतर्क रहें। साझेदारों से प्राप्त प्रतिक्रिया से व्यवस्था अवगत होती है और साझेदारों के प्रति उत्तरदायी बनती है। इसके आधार पर व्यवस्था में सुधार के लिए उचित कदम लिए जा सकते हैं अकसर शिक्षकों में इस बात की स्पष्टता नहीं होती कि किस प्रकार का सीखना आवश्यक है तथा वे कौन से मापदड हैं जिनसे इसे मापा जा सकता हैं। वे पाठ्यपुस्तक को संपूर्ण पाठ्यक्रम मानकर पाठों के अत में दिए गए प्रश्नों के आधार पर मूल्यांकन करते हैं। पाठ्यसामग्री के संदर्भ की भिन्नताओ तथा पढ़ाने के विभिन्न सिद्धांतों को वे ध्यान में नहीं रखते। पठन सामग्री में संदर्भानुसार भिन्नताएँ और अपनाई गई शिक्षण तकनीक में विविधता पर सामान्यतया ध्याननहीं जाता हैं, क्योंकि इनके आकलन की कोई कसौटी नहीं है। प्रत्येक कक्षा के सीखने के प्रतिफल शिक्षकों को केवल शिक्षा के वांछित तरीके अपनाने में ही सहायक नहीं है, बल्कि अन्य साझेदारों, जैसे-संरक्षक, माता-पिता, विद्यालय प्रबंध समिति के सदस्यों, समुदाय तथा राज्य स्तर के शिक्षा अधिकारियों को गुणवत्तापूर्ण शिक्षा सुनिश्चित करने में उनकी भूमिका के प्रति सतर्क और ज़िम्मेदार भी बनाता है। स्पष्ट रूप से परिभाषित सीखने के प्रतिफल विभिन्न साझेदारों की जिम्मेदारी तथा उत्तरदायित्वों को सुनिश्चित करते हुए और दिशा-निर्देश दे सकता है ताकि विभिन्न पाठ्यचर्या क्षेत्र से अपेक्षाओंकी पूर्ति हो सके. बच्चे विद्यालय में अपने सीखने के अनुभवों के साथ प्रवेश करते हैं। विद्यालय बच्चे के मोजूदा अनूभवों के आधार पर सीखने की आगामी प्रक्रिया के गठन का दायित्व उठाता है। इस प्रकार हम किसी भी स्तर की शरुआत बच्चे की 'अधिगम शून्यता' से नहीं करते। एक शिक्षक, जो कि विद्यार्थियों के सीखने का परामर्शदाता और सगुमकर्ता है, को भिन्न शिक्षणशास्त्रीय तकनीकों और बच्चेकी सीखने में उन्नति के प्रति भी जागरूक बनाना आवश्यक है। यह मुद्दा निःशल्क एव अनिवार्य शिक्षा का अधिकार अधिनियम 2009, बारहवीं पंचवर्षीय योजना और वेश्विक स्तर पर सतत विकास के लक्ष्यों में भी परिलक्षित होता है। शिक्षा में गुणवत्ता में सुधार बच्चों के सर्वागीण विकास को समेटे हुए हैं। अतः शिक्षा व्यवस्था में अनुकुल स्थितियों को सनि शिचत करना आदश्यक है जो प्रत्येक बच्चेकी सीखने और प्रगति में सहायता करे। इस के लिए एक उपयुक्त वातावरण में गुणवत्तापूर्ण पाठ्यचर्या और उसके प्रभावी क्रियान्वयन के लक्ष्य को पूर्ण करने वाले

बहुआयामी उपागम की आवश्यकता है। निःशुल्क एव अनिवार्य शिक्षा का अधिकार अधिनियम 2009, सतत एवं व्यापक मूल्यांकन (सीसीई) पर बल देता है जो कि शिक्षक को प्रत्येक बच्चेकी सीखने संबंधी प्रगति की समझ विकसित करने, सीखने संबंधी कमियों को पहचानने, समय-समय पर उन्हें दूर करने तथा तनाव रहित वातावरण में उनकी वृद्धि तथा विकास में सहायता करता है। राष्ट्रीय शैक्षिक अनसुंधान और प्रशिक्षण परिषद द्वारा प्राथमिक एवं उच्च प्राथमिक स्तर पर सतत एवं व्यापक मल्यांकन मूल्यांकन संबंधी उदाहरण स्वरूप पैकेज तैयार किए गए है। ये युस्तिकाएं विषयानसार उपयुक्त उदाहरणों के साथ सतत एवं व्यापक मल्यांकन मूल्यांकन के संदर्भ में एक समझ बनाता है कि सीखनेसिखाने की प्रक्रिया के दोरान सतत एवं मूल्यांकन का कैसे उपयोग करें। इस तरह वर्तमान परिप्रेक्ष्य में विद्यार्थी और शिक्षक के अलावा माता-पिता, समुदाय के सदस्य और शैक्षिक प्रशासकों को भी विद्यार्थियों के सीखने के बारे में जानने और उसके अनुसार बच्चों की सीखने संबंधी उन्नति पर नज़र बनाए रखने की ज़रूरत है। इसके लिए उन्हें आवश्यकता है और उनकी माँग है कि कुछ मानदड उपलब्ध कराए जाएँ ि जिनकी सहायता से अपेक्षित सीखने के स्तर का आकलन व उसका पता लगाया जा सके। सीखने की निरन्तरता को ध्यान में रखते हुए व्यवस्था को यह जानकारी देना कि बच्चेने सटीक रूप से क्या सीखा, एक चनौती भरा कार्य है। फिर भी राष्ट्रीय शैक्षिक अनसुंधान और प्रशिक्षण परिषद (एनसीईईआरटी) ने अपना एक प्रयास किया और एक ऐसा दस्तावेज़ तैयार किया जिसमें प्रारंभिक स्तर के समस्त पाठ्चर्यॉ क्षेत्रों के सीखने के प्रतिफलों को उनकी पाठ्चर्या संबंथी अपेक्षाओ और शिक्षणशास्त्रीय प्रक्रियाओ को जोड़कर शामिल किया गया है विभिन्न प्रकार के शैक्षिक सर्वे व उपलब्ध डाटा यह बताते है कि बच्चों में स्कूल स्तरीय विषयों में सीखने का उपलब्धि स्तर निर्धारित स्तर के अनुरूप नहीं है इसमें जिस तरह के प्रयास होते रहे है इसमें शिक्षक अपना पाठ्यपुस्तक के आधार पर पाठ्यक्रम पूरा करा देते है परंतु यह बात स्पष्ट नहीं हो पाती की बच्चों को उन विषय वस्तु में किस प्रकार के अवसर देने की जरूरत है अर्थात सत्र के अंत में बच्चों को क्या क्या आना चाहिए यह शैक्षिक अपेक्षाओं के रूप में परिभाषित किया गया है विद्यालय से संबंधित सभी हितग्राहियों को शामिल करते हुए सीखने की संप्राप्तियों (Learning outcomes) को निर्धारित किया गया है ये बेंच मार्क के रूप में

<u>Programme Outcomes for the Various UG Programmes OfferedBy Karnatak Arts, Science and Commerce College, Bidar</u>

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P. Raja Mohan, Assistant Professor

<u>Bachelor of Arts (B.A.) Program Objectives</u>

The BA course provides an education in variety of contexts. The BA aims to offer education that is accessible to students with a wide range of educational backgrounds and professional and personal circumstances. Some of the students may be having part time employment while others may be pursuing the programme as full time residential students. BA offers a rich variety of subjects taught by a wide range of teachers. The course incorporates a variety of modes of learning and teaching.

PO1: Creative Thinking

PO2: Ethics and Values

PO3: Development of Core Competencies

PO4: Communication Skills

PO5: Social Interaction

PO6: Effective Citizenship

<u>B.Com. Programme Objectives</u>

B.Com is one of the most sought after career oriented professional programs offered at the master's level. A B.Com degree opens up innumerable career options and opportunities to the aspiring managers both in India and abroad. A B.Com program also prepares one to start a business of his/ her own in the capacity of an entrepreneur.

PO1: Primary Knowledge

PO2: Self Employment

Programme Outcomes for the Various UG Programmes Offered By Karnatak Arts, Science and Commerce College, Bidar, Dr.MallikarjunHangarge, Vice Principal &IQAC Coordinator, P. Raja Mohan, Assistant Professor.

PO3: Managerial Skills

PO4: Time Management

PO5: CommunicationSkills

PO6: Leadership and Competitiveness

Bachelor of Science (B.Sc.) Programme Objectives

The aims and objectives of our Bachelor of Science educational program is structured to create the facilities and environment to consolidate the knowledge acquired at +2 level and to motivate and inspire the students to create deep interest in Sciences. It develops broad and balanced knowledge and understanding of physical concepts, principles and theories. Further students would be able to learn, design and perform experiments in the labs to demonstrate the concepts, principles and theories learned in the classrooms. They will also develop the ability to apply the knowledge acquired in the classroom and laboratories to specific problems whether theoretical or experimental in nature.

PO1: Critical Thinking

PO2: Effective Communication

PO3: Ethics andValues

PO4: ScientificTemper

PO5: Self-Directed and Life Long Learning

PO6: Environment and sustainability

Bachelor ofComputer Application (BCA)Programme Objectives

The BCA Programme has the following specific objectives.

> ➢ **To attract young minds to the potentially rich & employable field of computer applications.**

> ➢ **To be a foundation graduate Programme which will act as a feeder course for higher studies in the area of Computer Science/Applications.**

> ➢ **To develop skills in software development so as to enable the BCA graduates to take up self-employment in Indian & Global software**

Programme Outcomes for the Various UG Programmes Offered By Karnatak Arts, Science and Commerce College, Bidar, Dr.MallikarjunHangarge, Vice Principal &IQAC Coordinator, P. Raja Mohan, Assistant Professor.

market.

➢ **To train and equip the students to meet the requirement of the Industrial standards.**

<u>BCA Programme Objectives:</u>

PO1: Problem Solving Skills

PO2: Knowledge of Engineering

PO3: Development of Solutions

PO4: Computational thinking

PO5: Project Management

PO6: Lifelong Learning

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES in UNDER GRADUATE PROGRAMME IN CHEMISTRY submitted by: Dr.P. KAMALA, Lecturer in Chemistry, The Hindu College, Machilipatnam.

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES
UNDER GRADUATE PROGRAMME IN CHEMISTRY

Dr.P.KAMALA,
Lecturer in Chemistry
The Hindu College
Machilipatnam.

Programme Outcomes - BSc Chemistry

The programme enables the students after completion of a BSc in Chemistry degree, students are able to understand theoretical concepts of instruments that are commonly used in most chemistry fields as well as interpret and use data generated in instrumental chemicalanalyses.

➤ using laboratory and instrumentation techniques.
➤ Will become familiar with the different branches of chemistry like analytical, organic, inorganic , physical, environmental, polymer and biochemistry
➤ Helps in understanding the causes of environmental pollution and can open up new methods for environmental pollution control.
➤ Develops analytical skills and problem solving skills requiring application of chemical principles.
➤ Acquires the ability to synthesize, separate and characterize compounds

SEMESTER-I

➤ To be illustrate and understandthe types of reactions of hydrocarbons(alkanes, alkenes and alkynes).
➤ To acquire knowledge on Cycloalkanes.
➤ To provide an insight to the synthesis and structure of diborane and higher boranes, boron nitrogen compounds.
➤ To make them understand on preparation and applications of Silanes and silicones, hydrazine and hydroxylamine.
➤ Illustrate the classification of oxides.
➤ Understand about inter halogen and pseudo halogen compounds.
➤ To understand the classification of organo metallic compounds, nomenclature,preparation and properties.
➤ Acquire the knowledge of Organic Chemistry.
➤ To gain a clear idea about the Benzene and its reactions

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES in UNDER GRADUATE PROGRAMME IN CHEMISTRY submitted by: Dr.P. KAMALA, Lecturer in Chemistry, The Hindu College, Machilipatnam.

LABORATORY COURSE: SIMPLE SALT ANALYSIS

➢ To develop skills to identify and confirm the anion and Cation of a given salt by using systematic qualitative analysis.

SEMESTER-II
PAPER II (PHYSICAL & GENERAL CHEMISTRY)

➢ Acquire knowledge of crystalstructure some laws and defectsin crystals.
➢ In this mainly gained knowledge in Vander Waal's equation and critical phenomenon in gaseous state. Applications and differences in liquid state.
➢ Understand the basic concepts of solids, liquids and gases, ideal and non ideal solutions, azeotropes.
➢ To know about preparation, purification and properties of colloids and applications of adsorption
➢ To acquire knowledge about valence bond theory, MO theory in chemical bonding.
➢ Have conceptual understanding in basic principles of Stereochemistry of carbon compounds.

LABORATORY COURSE –II MIXTURE SALT ANALYSIS.

➢ To import students a thorough knowledge of systematic analysis of mixtures containing two anions and two cations by semi micro method.

SEMESTER-III
PAPER III (INORGANIC & ORGANIC CHEMISTRY)

➢ Learned characteristics of d-block elements and some theories involved in metals.
➢ Gain the knowledge about bonding and structure of metal carbonyls and properties of f block elements.
➢ Understand the nomenclature and properties of halogen and hydroxy compounds.
➢ Studied about structure and Nomenclature of aliphatic and aromatic carbonyl compounds and some named reactions.
➢ Illustrate the preparations and properties of active Methylene compounds and carboxylic acids.

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES in UNDER GRADUATE PROGRAMME IN CHEMISTRY submitted by: Dr.P. KAMALA, Lecturer in Chemistry, The Hindu College, Machilipatnam.

LABORATORY COURSE –III TITRIMETRIC ANALYSIS AND ORGANIC FUNCTIONAL GROUP REACTIONS.

➢ Students will get skill in the quantitative analysis by learning to prepare standard solution; they learnto determine the Fe^{+2} by using dichromate solution.
➢ Students understood how to identify different functional groups like carboxylic acids, phenols,carbonyl groups, amides etc.

SEMESTER-IV

PAPER IV (SPECTROSCOPY & PHYSICAL CHEMISTRY)

➢ To understand the general features of electronic spectroscopy and its applications.
➢ To be illustrate the principles, instrumentation and applications of NMR spectroscopy and infra red spectroscopy.
➢ Understand the concept and properties of Dilute Solutions.
➢ To learn the concept of Electro Chemistry and applications of conductivity and EMF measurement.
➢ To understand the concept of phase rule of different systems.

LABORATORY COURSE –IV   PHYSICAL CHEMISTRY AND IR SPECTRAL ANALYSIS

➢ Student will get skill on determination of concentration of HCl and acetic acid conductometrically using standard NaOH solution.
➢ To acquire the Practical knowledge on Phenol-water System and to interpret functional groups by Spectral analysis.

SEMESTER-V
PAPER - V (INORGANIC, PHYSICAL & ORGANIC CHEMISTRY)

➢ Understanding the concepts of Co-ordination Chemistry.
➢ To gain knowledge of Spectral properties and stability of metal complexes.
➢ Illustrating and classification of Nitro hydro Carbons.
➢ Understanding the concept and classification of Nitrogen compounds.
➢ To understand the laws, functions and concept of Thermodynamics.

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES in UNDER GRADUATE PROGRAMME IN CHEMISTRY submitted by: Dr.P. KAMALA, Lecturer in Chemistry, The Hindu College, Machilipatnam.

PAPER-VI (INORGANIC, ORGANIC & PHYSICAL CHEMISTRY)

➢ To be illustrate on substitution reactions metal complexes and Trans effect applications.
➢ To acquire the significant knowledge on biological Significance of Na, Fe,K,Co,Ni etc...
➢ Be able to understand the principles of Chemical Kinetics and laws of Photo Chemistry.
➢ Having conceptual knowledge of properties and reactions of Heterocyclic compounds.
➢ Able to recognise the structures and inter conversions of Carbohydrates.
➢ Introducing the Amino acids and protein concepts and their physical and chemical properties.

LABORATORY COURSE –V(ORGANIC COMPOUND ANALYSIS)

➢ To understand qualitative analysis for identification and confirmation of organiccompounds.
➢ Identification of functional group in the given organic compound by the qualitative systematicprocedure.
➢ And determining the melting and boiling points of organic compounds.

LABORATORYCOURSE –VI (PHYSICAL CHEMISTRY)

➢ To be able to understand how to determine the rate of constant for acid catalyzed ester hydrolysis**.**
➢ To acquire knowledge on surface tension and viscosity of liquids.
➢ To be illustrate on molecular status and partition coefficient of Benzoic acid in Benzene and water.
➢ To make them understand about adsorption of acetic acid on animal charcoal.

SEMESTER-VI - Electives
ELECTIVE Paper – VII-(A): (ANALYTICAL METHODS IN CHEMISTRY)

➢ Knowledge on evaluating the different types of analysis like Chemical analysis, Volumetric analysis and Gravitational analysis.
➢ Able to understand the Treatment of Analytical data.
➢ Gain knowledge on illustrating the separation techniques in chemical analysis of solvent extraction and ion exchange.
➢ To understand the concept of Chromatography and its methods.
➢ Explaining the separation techniques like TLC and HPLC.

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES in UNDER GRADUATE PROGRAMME IN CHEMISTRY submitted by: Dr.P. KAMALA, Lecturer in Chemistry, The Hindu College, Machilipatnam.

LABORATORY COURSE – VI
PRACTICAL PAPER – VII-(A) (AT THE END OF SEMESTER-VI)

- Practical knowledge on identification of amino acids by paper chromatography.
- Knowledge on determination of Zn and Mg by EDTA.

SEMESTER-VI
CLUSTERELECTIVE –III- PAPER – VIII-C-1
ORGANIC SPECTROSCOPIC TECHNIQUES

- To make them learn about the Nuclear magnetic resonance spectroscopy qualitative and quantitative methods analysis.
- Delineate the importance of NMR and its principles, effects, applications and advantages.
- To apply the knowledge about the UV –Visible spectroscopy and to know about the types of transitions.
- Knowledge about the electronic spectra of poly atomic analysis and determination of chromium and Magnesium in mixture.
- To make them apply the knowledge about ESR spectroscopy principles and its structural analysis methods and instrumentation.

CLUSTER ELECTIVE –III
PAPER – VIII-C-2 : (ADVANCED   ORGANIC REACTIONS)

- Will be able to enumerate the various types of reactions and reagents in organic photochemistry under photo chemical reactions.
- Acquire basic knowledge on mechanism of photo chemical reactions.
- Understanding about the conceptual knowledge on principles of protection and deprotection of alcohols,carboxylic acids,amines and formation of respective compounds.
- To get knowledge and analysis of synthetic reactions,mechanism and transformations.

CLUSTER ELECTIVE –III
PAPER – VIII-C- 3: PHARMACEUTICAL AND   MEDICINAL CHEMISTRY

To acquire the knowledge about the pharmaceutical chemistry and get familiar with terminology pharmacy and pharmacology,metabolites and anti-metabolites.
- To able to understand the synthetic methods of drugs,classification and administration of drugs.
- To get awareness and knowledge on chemotherapeutic drugs, antipyretics and pharmacodynamic drugs.
- To get awareness and acquire knowledge about HIV –AIDS, immunity and structures &prevention.

PROGRAMME SPECIFIC OUTCOMES AND COURSE OUTCOMES in UNDER GRADUATE PROGRAMME IN CHEMISTRY submitted by: Dr.P. KAMALA, Lecturer in Chemistry, The Hindu College, Machilipatnam.

I. LABORATORY COURSE – VIII
PRACTICAL PAPER – VIII-1: (AT THE END OF SEMESTER VI)

➢ Providing practical knowledge about preparation of Aspirin,Paracetamol, Acetanilide, Barbutiric acid,Phenyl Azo β-naphthol and their importance to make them understand well.

II. LABORATORY COURSE – VIII
PRACTICAL PAPER – VIII-2

➢ Explaining green procedure of organic qualitative analysis and detecting the N,S and halogens.
➢ Carrying out an organic reaction for the preparation of acetanilide.
➢ To provide an insight for rearrangement reactions in green conditions.
➢ To get practical knowledge on electrophilic aromatic substitution reactions.
➢ Analysing a processes Radial coupling and green oxidation reactions.
➢ Learning the green procedure for Diels alder reactions.

III.LABORATORY COURSE-SCLUSTER
PAPER VIII-3 Practical - Project Work

➢ Students will acquire the ability to make links across different areas of knowledge and to generate, develop and evaluate ideas and information so as to apply these skills to the project task.
➢ Students will acquire the skills to communicate effectively and to present ideas clearly and coherently to specific audience in both the written and oral forms.
➢ Students will acquire collaborative skills through working in a team to achieve common goals.
➢ Students will be able to learn on their own, reflect on their learning and take appropriate actions to improve it.
➢ Develop plans with relevant people to achieve the project's goals.

ISSUES AND CHALLENGES IN IMPLEMENTING OUTCOME BASED EDUCATION IN TRADITIONAL COURSES

Dr Mandapati Dasu,

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Nagaram.

Nowadays the burning issues is the practicing of outcome based education(OBE) has been much stressed in developed and third world countries which led to becoming the vital point for educational reforms. In outcome based education, students are the most responsible for their, self learning and the evaluation of learning are based on the outcomes in lieu of the contents being taught. However, much criticism against the OBE has also been presented in several different papers regarding the real implementation of OBE. In this paper I explained the issues and challenges of implementing an outcome based education in traditional courses, especially in faculty of traditional courses in India.

Outcome based education (OBE) is the current paradigm shift sweeping the education system. The elevating essential to offer more capable and competitive learners for the globalised world has led to a reform in the education system where by the learning is no longer unilateral process but shifted it weight to be borne by the learners. The OBE itself is recurring education reform model which is based on a student centered learning philosophy and focuses on the output (outcomes) instead of the input (thought) [1]. In contrast with traditional education OBE puts much stresses on learning process being actively perused and managed by the students themselves and the lecturers are only acting as facilitators in the student's quest for knowledge. Specific and clearly defined outcomes must be described to the students so that the students will be able to set their own expectations and means to achieve the decide outcomes. Like that, the role of the lecturers is to guide and provide directions to students to navigate their own learning. With the implementation of OBE, this has caused a revolution in academia view the learning process and its relevant assessment. The assessment of students learning is no longer solely dependent on object oriented exams. With OBE, the assessments methods of various skills, knowledge and attitudes become diverse and various learning pedagogies are introduced to ensure the achievement of the outcomes. Learning tools such as problem based learning,

integrated design project, case studies are some of the methods utilized to assess subjective skills acquired by the students. The defined outcomes must be specific, measurable, achievable, and realistic and time- based.

The under graduate stage in education is crucial in many ways. At this stage, students are better placed to exercise a choice of courses keeping in views their interests, attitude, aptitude and capabilities they may choose either a specialized academic course or job oriented vocational courses. This is the stage of maximum challenge. Students themselves are passing through an age-specific critical phase of their lives-transition from adolescence to youth, from general inquisitive nets to scientific enquiry. It became essential in views of the pace of change particularly in the 21st century; these changes have created visible impacts in every field of human endeavor and activity. The modern education policies continuously attempt to perceive the learning needs of the feature citizens who would be contributing professionally in their careers.

The preparation and teaching and learning of the new syllabus in history are an essential part of it. The new techniques and technologies, new excavations and explorations have resulted in fresh interpretations of several situations in history which is one of the major electives of study at the under graduate stage. The modern era has often been described as the age of information. Indeed, it is the steady and continuous expansion of knowledge that impacts this approach, its extraordinary dynamics and vitality. The realm of history has not remained isolated from these general currents it too has witnessed an amazing extension of frontiers, as new methods and techniques of analysis have enriched and depended on our comprehensive of the past. Academics of varying specializations and orientations have contributed to the ever-growing corpus of historical writing. However, unlike development in the field of science and technology with which the students generally abreast, research in the discipline of history remains largely beyond their gaze. Students need to be familiarized with complex task of reconstructing past that historians are engaged in, as knowledge of the past is necessary to build a better future care however, has to be taken to ensure that while the story is presented in its compulsorily, it is sufficient concise so as not to place too great burden on students who have to study several other subjects at the same time. It is hoped that this work goes some way in meeting these requirements.

Student's life at under graduate level must be linked to their life outside the college. This principle marks adequate from the legacy of bookish learning which continues to shape our

system and causes a gap between the college home and community. The syllabus and textbooks developed on the basis UGC signify an attempt to implement this basic idea. They also attempts to discourage rote learning and the maintenance of sharp boundaries between different subject areas. We hope these measures will take us significantly further in the direction of a student centered system of education outlined in the UGC policy on education.

The success of these efforts depends on the steps that are taken by college principal and lecturers will encourage students to reflect on their own learning and to pursue imaginative activities and questions. We must recognize that given space, time and freedom, student generate new knowledge by engaging with the information passed on to them by adults.

Treating the prescribed syllabus as the sole basis of examination is one of the key reasons why other resources and sites of learning are ignored. Creativity and initiative is possible if we perceive and treat student as participants in learning not as receivers of fixed body of knowledge. These aims Imply considerable change in college routines and mode of functioning flexibility in the daily time table is as necessary as rigor in implementing the annual calendar so that the required number of teaching days are actually devolved to teaching. Syllabus designers have tried to address the problem of curricular burden by reconstructing and re-oriented knowledge at different stages with greater consideration for students' psychology and the time available for teaching. The syllabus attempts to enhance this endeavor by giving higher priority and space to opportunities for contemplations   and wondering, discussion in small groups and activities requiring hands on experience.The problem faced by the faculty in implementing OBE is the perception of students and lecturers towards OBE. While emphasizes on student centered learning, the actual implementation of OBE is still heavily reliant on instructors as presenters of knowledge. Apart from directly objective assessments such as final exams, tests, assignments and projects, indirect assessment such as surveys are conducted at the end of each course. There are two surveys conducted, one which evaluates the inductor's deliveries of the course by the students while the other evaluates the students own perceived understanding for the course. It is interesting to note that there are sometimes discrepancies and gap between the actual marks via objective assessment and students own perception on their understanding of the course and it's contents. More so when the evaluation on the instructor's deliveries of the course is suggested to somehow influence the students' own perceived understanding of the course. The results shows a critical point in the students' perception achieved LO and the possible influence of culture ingrained in the students. Results from the survey often give higher marks for deliveries and yet

low on their own perceived understanding and this is averagely consistent in many LO evaluations. In traditional learning, the lecturers are viewed as a providers and one which holds the answers to the questions while in OBE, the role of the lecturers is not to provide solutions but to guide them towards the discovery of the solutions. Thus , in OBE there is high expectations for extremely self reliant, resourceful and independent student characteristics which are often contradicted by it's reality.

In traditional education, the outcomes are focused on the content driven learning objectives which are determined by the lecturers without external input. In OBE, one of the criteria is the inclusion of inputs from various stakeholders such as the industry, local governments, employers, alumni, parents and students themselves. This is different from traditional learning models whereby the assessment of learning becomes an end. In OBE, the learning process is a continual quality improvement (CQI) process where the assessment of the learning outcomes provides information on how to improve the learning of the students. The analysis on the assessment of the students' performance is reported in the End-Semester-Report (ESR) for each course.The implementation of OBE in engineering education is a cyclic continuously improving model with the assessment of the outcomes is not the end but just the means to achieve the desired outcomes. Effective implementation of OBE gives opportunity for new ideas and challenges to develop an education model which resulted in improved learning outcomes. However, for OBE to be successfully adopted by a tertiary education, the academic staffs and the students must understand the objective of learning and the roles for both instructors and learners. Education in tertiary institution should not be a linear unilateral model but instead an active and engaging process which is a transition for the learners to prepare themselves for the workforce. In OBE, the end of the curricula does not signal the end of the learning process for the students but a continuum of lifelong learning skills developed in their tertiary education.

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Need for outcome based education

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Those who do not know history, cannot create history. The Indian system of education has a rich history of its own like the culture and traditions of India. The Indian education system of ancient period had a unique characteristic and qualities which were not found in the ancient education system of any other countries in the world. It was so autonomous that the society and state couldn't interfere with the curriculum or the administration of educational system. The period of education varied and it could go on for as long as 48 years.

Dignity of labour was taught to every child through physical labour. Debates and discussions were a part of education. Learners needed to know an art in order to earn a livelihood, As per the ancient Indian education system, there were about 64 art forms, including dance, music, jewel making, sculpture, agriculture, and medical sciences. Learners were required to work as trainees under a master to acquire vocational training in a particular art form. They were taught without any cost, and food and boarding were also taken care of by the master.

Teaching in groups was the method adopted. Learners were also taught individually by their teachers based on their capabilities and aptitudes. Experiential learning was prime most focus. Listening, contemplation and concentrated contemplation, storytelling, memorization, critical analysis, practical study and seminars were the evaluation methods. The practices and knowledge acquired by learners of ancient times was passed on from one generation to another and is reflected even in the teachings of today. Nalanda University was one of the first and best universities in the world, founded in the 5th Century BC and attracted 10,000 students from around the world and there were 2000 teachers.

India had a glorious past but currently is struggling for the retrieval of its past glory. Once India was "Jagadguru" to the globe. It was India that discovered zero, without which mathematics would not have been possible. It was India, whose system of medicine

"Ayurveda" was followed by whole world. It was in India that the whole system of Yoga, for physical, psychological and spiritual well-being, was developed. The list is endless.

World wars among the nations, wars among various kingdoms from within the country, disunity and invasion made not only India but even other countries to lose their glory and affected the effectiveness of their educational systems. Paralysing the effectiveness of an educational system jeopardizes every Nation's economic growth. During the first three quarters of the 20th century, the educational attainments of many countries increased rapidly. This remarkable trend led to the rapid economic growth of many nations. Research and leading Surveys conducted by the Department of Higher Education around the world predicts that the growth in educational attainments has slowed noticeably since the mid-1970s, and gaps in academic achievement and educational attainments have grown.

This trend may be due to the shift of our main focus of every activity to "income based'. Corporatization of everything has turned every service oriented activity as income based activity. Worship to work takes place with the only motto of 'income based' event. This practice promotes despair, denial, disaster and doom everywhere in the society leading to a fragmented world.

Nothing is available for free except the sunlight and air. Many persons charge their mobile in railway stations or wherever it is available for free without knowing the danger of their data being stolen freely through juicy cut apps. Neem tree is native to the Indian subcontinent but US sells two neem stick of 15 cm length with its edges crushed like bristles for 15 dollars as organic tooth brush. Foreigners have obtained patent right for many of our herbal resources due to our ignorance and lack of awareness of their medicinal value.

Education is empowerment. True Education is outcome based. True Education alone can bring progress, prosperity, tolerance, universal acceptance, peace and global stability. The national educational policy and the University grant commission insists for a shift towards outcome based education. A need based and reality based constructive aligned curriculum will be a significant step towards this direction.

Gaining mere knowledge is not the purpose of learning. As Khalil Gibran says "A little knowledge that acts is worth more than much knowledge that is inactive'. The goal of knowledge is to find applications in finding solutions to the needs of society. If the goal focusses only on pursuit of material success through making only products will make the youth more selfish and intolerant towards one another. Academic back ground, career and

good earning is important in life for happiness and satisfaction but more important is living a quality life, humanity and compassion and self-discipline for enjoying life fully.

Recently on 28th September, 2019, in the United Nations General Assembly our prime minister, Sri.Modiji quoted a saying written three thousand years back from Tamil, one of the oldest language of the world which tells All Listen! All places in the Universe are our home towns and all persons are our kin'. The *unknown monk* Swami Vivekananda *blossom into a world-figure when he* opened his address by saying 'Sisters and Brothers of America' in the World Parliament of Religions in Chicago in 1893 broke down the barriers of this little world of ours. This sense of bountiful feeling of belonging beyond borders, is unique to India. India has to be made a hub of knowledge creation. India's massive human resource needs to be cultivated through sound system of education along with intensive hands on exercise to provide experiential learning guided by a sound theoretical foundation on conceptualizing and designing a constructively aligned curriculum.

The world has now become a global village. Thanks to revolution in areas of information, communications technology and travel modes. So, let us enhance our ability to access the right information from existing open educational resources, assess, adopt, think independently to exercise, collaborate with others and apply this knowledge in designing aligned curriculum to make a sensible difference and bring a marvellous change in the lives of youth of today. Knowing the right thing is wisdom. Thirst for wisdom is knowledge. Learning is intellectual entertainment. Enlightening others with this knowledge is real greatness.

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GLIMPSES ON SOCIAL AND ECONOMIC ROLE OF HIGHER EDUCATION

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Abstract: Academic Programmes together with our institutional culture and practices must therefore ensure that we keep ethical questions in sharp focus, and that we advance a democratic ethos and a culture of human rights conducive to critical discourse, cultural tolerance, and a common commitment to a humane, just, non-racist and non-sexist social order. For one, higher education has an intrinsic significance as an engagement between dedicated academics and students around humanity's intellectual, cultural and scientific inheritances (in the form of books, art, pictures, music, artifacts), and around our historical and contemporary understandings, and views and beliefs regarding our natural and social worlds. Here, education is the pursuit of learning of nature and society, which is undertaken as part of what it means to be human.

Introduction

The role of higher education institutions is today's world immense, complex and vital. A wide range of challenges and opportunities is emerging, with many political, economic and social implications. Perhaps most significant are the challenges associated with shifting perspectives of knowledge itself, which are strongly influencing the role and the responsibility of universities in society. Universities are well positioned to link the local and the global and this gives them considerable access to and influence over change process in may societies. It may enhance their potential to contribute to human and social development through the promotion and facilitation of citizen participation and involvement in these processes.

Key roles of higher education

Historically, much of the literature on higher education's relationship with society concentrates on its links with industry and the economy. Indeed, during the nineteenth century shipping, cotton, wool, heavy industry and finance provided the basis for the founding of the civic universities that sprang up around the country. Thus, these universities were linked with the industries (and the associated business elites) that defined the regions and localities in which they found themselves and this helped to mark them out, in clear contrast to Oxford and Cambridge which were connected to rather different elites.

After 1945, the role of higher education as a social instrument and agency became widely accepted. As the decade progressed, however, this was combined with New Labour's more explicit social agenda, with the promise of widening participation and the reduction of social exclusion through the opening up of higher education to wider sections of society.

Until the late 1980s, of course, there were formal linkages between some higher education institutions and their communities because of the role of local authorities in the oversight of

regional (and local and area) colleges and polytechnics. When the polytechnics were made statutory corporations by the Education Reform Act of 1988 those formal linkages also ended. Policy agendas in higher education (including its expansion, the drive to quality assurance in teaching and excellence in research) were nationally driven and nationally focused, although the process of devolution meant that agendas might vary between the United Kingdom's component nations.

In recent years the role of universities in the development of disadvantaged regions has been given greater prominence in policy documents. For example, a 2007 OECD report identifies the multiple roles higher education institutions can play in their regions: through knowledge creation and transfer, and cultural and community development, which create 'the conditions where innovation thrives. It goes on to say that 'Regional development is not only about helping business thrive: wider forms of development both serve economic goals and are ends in themselves. HEIs have long seen service to the community as part of their role, yet this function is often underdeveloped.This quote usefully reminds us that the involvement of higher education institutions in local and regional development may deliver on more than just narrow economic goals, even if the community role is often not given the attention it deserves either by universities or government agencies. Recognition of this also informs a white paper on the future of higher education in England institutions should increasingly be embedded in their regional economies. The nature of the role will depend upon each institution's missions and skills in all cases, universities and colleges are key drivers for their regions, both economically and in terms of the social and cultural contribution they make to their communities. Higher Education must be play at least 5 key roles, they are;

Cultivation of Highly Educated People:

The first key role is to cultivate highly educated people. In order to undertake this function, universities must provide imaginatively, thoughtfully, and rigorously conceptualized, designed, and implemented teaching and learning programmes and qualifications that take into account two issues.One is the kinds of knowledge, competencies, skills and attitudes that our graduates require to function in a rapidly changing society, continent and world. Our programmes must enable our students to graduate as professionals who can think theoretically and imaginatively; gather and analyze information with rigour; critique and construct alternatives and communicate effectively orally and in writing. Our task is not simply the dissemination of knowledge to students but also the induction of our students into the making of knowledge.

A second issue we must consider is the social and educational experiences of students who, because of the imperative of social equity, must come from increasingly diverse social backgrounds. Our students must be afforded not simply equity of access, but also equity of opportunity and success, through effective teaching and learning and academic development and mentoring programmes. Prof. Brian O' Connel, Vice Chancellor of the University of

Western Cape, is pertinent here when he states that universities cannot rest on their laurels…and simply teach the same curricula…year after year with minor changes and presume that this is sufficient. If the demands made on students by a fast-changing world are greater, so too are the demands on lecturers and researchers. We have constantly to unpack the assumed constants in our respective fields to encourage students to interrogate what we and they have learned to take for granted.

Democracy and Democratic Citizenship:

The second key role of higher education is to contribute to forging a critical and democratic citizenship. Our societies require graduates who are not just capable professionals, but also sensitive intellectuals and critical citizens. Our academic programmes together with our institutional culture and practices must therefore ensure that we keep ethical questions in sharp focus, and that we advance a democratic ethos and a culture of human rights conducive to critical discourse, cultural tolerance, and a common commitment to a humane, just, non-racist and non-sexist social order. For one, higher education has an intrinsic significance as an engagement between dedicated academics and students around humanity's intellectual, cultural and scientific inheritances (in the form of books, art, pictures, music, artifacts), and around our historical and contemporary understandings, and views and beliefs regarding our natural and social worlds. Here, education is the pursuit of learning of nature and society, which is undertaken as part of what it means to be human.

Development Needs and Challenges:

The third key role of higher education is active engagement with the pressing development needs and challenges of our societies. Through teaching and learning, universities can develop a consciousness of myriad economic, educational, health, environmental and other problems, and through research they can confront and help contribute to their management and resolution.

Engagement with the Intellectual and Cultural Life of Societies:

The fourth key role of higher education is to proactively engage with our societies at the intellectual and, more generally, cultural level, and to contribute to the intellectual and cultural development of a critical citizenry. This entails a 'cognitive and political praxis' (Eyerman and Jamison, 1991:62) undertaken through social commentary and critique and that is related to the shaping of world views and ideas, and social relations, institutions and practices. Beyond communicating with peer scientific communities, universities have the responsibility to also, in the words of Stephen Jay Gould, "convey the power and beauty of science to the hearts and minds of a fascinated, if generally uninformed, public" (2006).

Research and Scholarship:

The fifth key role of higher education is to imaginatively and creatively undertake different kinds of rigorous scholarship - discovery, integration, application and teaching (Boyer, 1990) and rigorous research, which has different purposes (fundamental, applied, strategic, developmental), aims and objects. Universities clearly take on great importance in this context. Although universities are increasingly not the sole knowledge-producing and research and development institutions, they remain important sites, especially of fundamental research.

Conclusions:

Higher education tends to be accorded numerous and often diverse roles. In the face of this, it could, indeed is likely to, play contradictory roles. It contributions could be simultaneously radical and transformative and reformist and conservative. That is to say, it could, simultaneously, reproduce, maintain and conserve, as well as undermine, erode and transform social relations, institutions, policies and practices. For example, under certain circumstances higher education may play a vital role in the dissemination of anti-racist ideas and thinking, eroding racism, racialism and racial prejudice and building a non-racial culture? Yet, concomitantly, it could play no or little role in the undermining of patriarchy and sexism, homophobia and xenophobia. Indeed, it could even contribute to reinforcing patriarchy and sexism and other kinds of prejudice and intolerance through its own institutional culture and practices. Universities must also refute, through the force of argument, reason and persuasion, other claims that could undermine their core identity and purposes and reduce them to something other than a university.

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Introduction to OBE

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Abstract:

Instruction is planned for making educating and learning situations that would realize wanted changes in students, regardless of whether to be increasingly proficient, better talented or to impact their demeanours and qualities emphatically. Numerous youngsters accomplish in significant teaches, for example, perusing, arithmetic and science, however the most significant effect on understudies' accomplishment and progress is the effect of the guidance they get. Proof shows that some instructing techniques are bound to advance learning than others, and that educator experience isn't really identical to instructor mastery. The goal of this survey article is, investigates a portion of the fundamental standards of results based instruction. Step by step instructions to structure modern results and create execution pointers to accomplish results of significance to all understudies. It is proposed to assist educators with seeing how they can interpret the hypothesis and reasoning of OBE into down to earth activity in their instructional arranging, educating and evaluation of understudy learning.

Keywords: Outcomes -based education,Assessment,Mastery Learning, Educational philosophy, Competency-based instruction.

INTRODUCTION:

Training is planned for making instructing and learning conditions that would achieve wanted changes in students, regardless of whether to be progressively proficient, better talented or to impact their frames of mind and qualities emphatically. The embodiment of educating and learning is to design showing occasions (substance, techniques, and so forth) and to find out to what degree students have obtained the planned capabilities. Vulnerability about the ideal learning results and inability to evaluate results appropriately could end in a circumstance where students just accomplished pseudo information, pseudo-abilities, pseudo-frames of mind and pseudo-values. On fruition of their examinations these students are granted an endorsement naturally inferring that they have accomplished certain abilities while in

certainty they have not. Embitterment with instruction in such manner is self-evident - however not another marvel. Disappointment with training strategies and practices have on numerous occasions prompted activities to alter these practices and frameworks to address the issues of students at the time. In any case, not these made out to be advantageous for them, which offered ascend to changed activities.

Outcomes -based education [OBE] is presently supported globally to advance instructive recharging and has been actualized in nations, for example, Canada, the United States and New Zealand. In any case, it has just inspired unforgiving analysis from rivals of the development (Claassen, 1998; HTTP, 1994). South Africa is presenting its very own form of OBE as the premise of Curriculum 2005 (Claassen, 1998; Malan, 1997:73). Also, as somewhere else on the planet, responses differ between recognition by its advocates and denouncement by its faultfinders.

WHAT IS OUTCOMES-BASED EDUCATION?

William Spady is regarded as OBE's leading advocate and a few points he makes would suffice.

Spady (1994:1) characterizes OBE as a … extensive way to deal with sorting out and working training framework that is centered around and characterized by the effective shows of taking in looked for from every understudy. Results are … clear learning outcomes that we need understudies to exhibit toward the finish of critical learning encounters … and … are activities and exhibitions that encapsulate and reflect student fitness in utilizing content, data, thoughts, and instruments effectively (Spady, 1994:2). Concerning OBE worldview, Spady (1994:8) states: … WHAT and Regardless of whether understudies adapt effectively is a higher priority than WHEN and HOW they pick up something.Ten key parts underlie what is named the results - based data age worldview (Spady, 1994:36-40). At issue here is whether it is in actuality a new training worldview.

The educational objectives movement

Disjointedness between what is being educated and what is being scholarly prompted the setting of targets for educators and students. McAvoy (1985:28) followed the recorded utilization of destinations in training back similarly as 1860 when Spencer in Britain detailed targets as indicated by a characterization of human exercises. In 1924 Herbart in Germany focused on the significance of exercise arranging and expressing targets to control educating exercises. In 1949 Tyler gave further driving force to the destinations situated development by focusing on the significance of destinations in educational plan structure and educating rehearses. He recorded four inquiries as the reason for his methods - end or item arranged justification for educational program structure (Tyler, in Arjun, 1998:24): What instructive destinations should the school point to accomplish?

  ➢ How can one select learning encounters that are probably going to be valuable in achieving these goals?

➢ How should learning encounters be sorted out for powerful guidance?
➢ How might the viability of learning encounters be assessed?

The competency-based movement

Competency-based instruction was presented in America towards the finish of the 1960s in response to worries that understudies are not shown the abilities they require in life after school. A similar concern has been communicated about training in South Africa. Competency-put together training is based with respect to six basic segments (Van der Horst and McDonald 1997:10-11):

➢ Explicit learning results as for the necessary abilities and attendant capability (guidelines for appraisal)
➢ An adaptable time allotment to ace these abilities
➢ An assortment of instructional exercises to encourage learning
➢ Criterion-referenced testing of the necessary results
➢ Certification dependent on exhibited learning results
➢ Adaptable projects to guarantee ideal student direction

The mastery learning movement

The following main characteristics of mastery learning, also reflected in OBE, apply:

➢ Ascertaining prerequisite knowledge or skills to attain goals
➢ A flexible time frame to achieve goals
➢ Using different media and materials to create enriched teaching / learning contexts
➢ Formative evaluation to provide feedback for both teaching and learning improvement

Criterion-referenced instruction and assessment

Criterion-referenced instruction and assessment are well known and form an integral part of all types of performance-based assessment. Mpepo (1998) describes criterion-referenced instruction as a form of mastery learning. It is based on attaining specified objectives and on testing for competence in terms of the criterion stated in the objective. This form of instruction compares a learning outcome or mastery of competencies with a predetermined external standard. Achieving the set standard signifies 'success', and failing to achieve the standard implies 'not yet up to standard', which is followed by remedial intervention. Criterion-referenced assessment is the preferred mode of assessment in OBE.

Integrating educational approaches

In lobbying for a change to the traditional approach to teaching and learning, Malan and Jorissen (1990) and Kachelhoffer et al (1992) initiated a three-tiered eclectic framework for curriculum design and teaching / learning practices. The roots of this

framework are firmly embedded in all the above-mentioned movements. The following are the main features of the model – and distinctive features of the current OBE approach:

- ➢ It is needs-driven. Curricula are designed in terms of the knowledge, skills and attitudes expected from graduates and aim to equip students for lifelong learning.
- ➢ It is outcomes-driven. The model has a line that runs from taking cognisance of training needs to setting an aim (purpose) for the programme, goals for syllabus themes, learning outcomes, and finally assessing the learning outcomes in terms of the set learning objectives.
- ➢ It has a design-down approach. Linked to needs and the purpose of the programme, learning content is only selected after the desired outcomes have been specified. Content becomes a vehicle to achieve the desired learning outcomes which are aimed at inculcating a basis for life-long learning.
- ➢ It specifies outcomes and levels of outcomes. Learning objectives are described in terms of Bloom's (1956) cognitive, affective and psychomotor domains and set according to Mager's (1984) guidelines for formulating objectives.
- ➢ The focus shifts from teaching to learning. The model has a student-centred learning approach where lecturers act as facilitators. Study guides help the learners to organise their learning activities, and group work, continuous assessment and self-assessment are major features.
- ➢ The framework is holistic in its outcome's focus. Although the learning objectives are aimed at learning at grass-roots level, they are linked to goals and aims at higher levels. Attaining learning objectives is therefore not an end in itself; it provides building blocks for achieving higher-level outcomes.

Assessment

The ultimate purpose of assessment is to validate learning outcomes – be it for diagnostic, formative or summative purposes. The role of assessment in OBE is part and parcel of the aims of assessment in all its root models. OBE, however, highlights continuous and criterion-referenced assessment. OBE aims to assess the competences of learners in their totality. It takes a holistic approach in describing the competence of a learner in terms of knowledge, skills and values, and assessing competence by using a variety of assessment approaches. In fact, the smallest unit of assessment must cover the integrated knowledge, skills and values that apply in practice in a specialised context (Department of Education, 1998:26). This calls for performance-based and authentic assessment strategies against the background of criterion-referenced assessment.

CONCLUSION:

OBE is firmly rooted in past educational approaches and does not represent a paradigm shift as advocated by OBE proponents. At best OBE can be described as

an eclectic educational philosophy taking the best from previous approaches and framing it in a new visionary system that is appropriate to the needs and demands of a democratic South Africa. As in the case of previously highly publicised - but at some stage discredited - educational approaches, only time will reveal the true value of OBE. With a socio-constructivist base that makes allowances for stakeholder input, OBE may become a living educational model, adapting to new demands and needs.

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Learners Outcome-AFoundation for Lifelong Learning

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Introduction: All language teaching has some underlying ideology and the chief task of the teacher is to translate this ideology into a reliable and viable teaching strategy for which the knowledge of curriculum, the language to be taught, and the interests and ability of the students need to be considered.

All language learning is based on activities and there is an interaction between the teacher and the learner is this process. As such the contents selected and the language employed should correspond to the contemporary situation.

Outcome based education "starts with a clear specification of what students are to know, what they are able to do, and what attitudes or values they should be able to demonstrate at the end of the program" (Killen, 2005, p.77).1

Outcome-based education is a replica of education that discards the traditional focal point on what the school/college grants to students, in support of making students exhibit that they "know and are able to do" whatsoever the requisite conclusions are. The stress in an OBE schooling system is on calculated outcomes rather than "efforts," such as how many hours students spend in class, or what textbooks are provided. Outcomes may comprise a series of skillfulness and knowledge.

The spotlight on outcomes creates a lucidanticipation of what needs to be accomplished by the end of the course. Students will comprehend what is anticipated of them and teachers will recognize what they require to teach during the course. OBE does not specify a specific method of instruction, leaving instructors free to teach their students using any method.India has started implementing OBE in higher technical education like diploma and undergraduate programmes. The National Board of Accreditation, a body for promoting international quality standards for technical education in India has started accrediting only the programmes running with OBE from 2013.

Since 2015 CBCS is adopted by all the Indian universities because there is a need to allow the flexibility in education system, so that students depending upon their interests can choose inter-disciplinary, intra-disciplinary and skill-based courses. The choice based credit system not only offers opportunities and avenues to learn core subjects but also explore additional avenues of learning beyond the core subjects for holistic development of an individual. The CBCS will undoubtedly facilitate benchmarking of our courses with best international academic practices. In tune with the CBCS pattern General English is prescribed for 3 semesters for undergraduate courses and Communication and soft Skills for II, III, and IV semesters.

Step Up with English *is* the text prescribed for the students of I Semester students from the academic year 2015-16. Prose collections are 1*. The Knowledge Society* byAbdul Kalam and *The Languages of African Literature* by NgugiThiong'o. We read Prose to learn a language. So teaching prose in a class room means teaching /reading with comprehension. The students are taught the skill of reading with conception. Through this they learn new vocabulary and content words. They become more proficient in the four language skills i.e Listening, Speaking, Reading, and Writing and also develop the ability of speaking English correctly and fluently.

I. In the lesson ***The Knowledge Society*** AbdulKalam, a man of unparalleled competence in science or language, talks about knowledge enriched Indian society from prehistoric times. Depending on that we have to set up an ecosystem of technology to make India a developed country. Kalam identifies the knowledge centers in history and society and in various sectors of society and people. The outcome of this prose piece is –

1. To understand the passage and grasp its meaning.

The learners are able comprehend the ideas expressed by the writer and can try to identify knowledge resources in the society and in their life's journey they may retrieve that. They grasp the gist an important points of the lesson and able to write answers for the questions given.

2. To read with correct pronunciation, stress, intonation, pause and articulation of voice.

When they listen to the lecture in the class they are able to catch the correct pronunciation of the words, stress and intonation of the sentences. It will help them to become good speakers

3. To enrich their active and passive vocabulary.

The learners are benefitted by variety of vocabulary through this lesson, acronymslike TIFAC,PURA, TELCO, IT, GDP,WTO etc. glossary – lacuna, prototype, diagnosis, niche, etc.

4. To express the ideas of the lesson orally and in writing.

They are able to answer comprehension questions given in the examination and are able to present a seminar in this lesson.

5. To develop their imagination.

The lesson helps the learners to develop their imagination when the names of universities like Nalanda, which attracted the students from various parts of the world. They can feel proud of the Indian university and its reputation. They are informed of the India which was endowed with natural and competitive advantages, a different India they live now. They understand what is a knowledge society and what are its components required to be called a knowledge society. They can apply this to increase their proficiency in making India a knowledge society.

II. In the lesson*The Languages of African Literature*NgugiwaThiong'o, a Kenyan writer, pronounces that African writers should Prefer their mother tongue while writing instead ofthe old colonial languages of English, French and Portuguese. Writing in native language helps them to renounce lingering colonial ties and build an authentic African Literature.

The outcome of this prose piece is:

1. To understand the passage and grasp its meaning.

a. The learner is able to comprehend that Language is used to work collectively and get things done.

b. Language conveys and carries the culture of the people. It becomes the warehouse of its images, ideas, wisdom, practice and evidence. It ties one to one's people. It shapes how one look at the world and oneself.

2. To read with correct pronunciation, stress, intonation, pause and articulation of voice.

Students learn correct pronunciation of the African names, stress and intonation of the words and expressions used in the lesson. They will comprehend the articulation of the writer's sorrow and shame, when he was alienated from his nativity.

3. To enrich their active and passive vocabulary.

They come to know vocabulary like Ogre, lucrative, apartheid, alienation, demarcation and names of the African languages like Gikuyu, Zulu, Yoruba, bo and etc.

4. To express the ideas of the lesson orally and in writing.

They are able to answer comprehension questions given in the examination and are able to present a seminar in this lesson.

5. To develop their imagination.

The lesson helps them understand the importance of mother tongue in one's life. They are able to estimate the alienation the writer suffers when he is kept away from using his mother tongue. So they start to honour their mother tongue to feel at home. They learn the importance of the immortality of a language depends on its utility in the form of literature. A good example is there that Nigeria already has a thoroughly Africanized form of English which is widely known by the masses – Pidgin. Thus they made English Africanized.

 Poetry selections:

Two poems are prescribed for this sem. 1. *The Road not Taken* 2. *Night of the Scorpion*

 "Poetry offers wonderful opportunities for reading, writing, speaking, and listening practices for English language learners. Poetry also gives students a chance to

expand vocabulary knowledge, to play with language, and to work with different rhythms and rhyme patterns." Kristina Robertson (2009).[2]

A **critical appreciation of a poem** requires of one to explore the **poem** as a whole and **critically** provide insight into the elements which make up the **poem**, such as diction, imagery, structure, rhyme, rhythm, the overall message or theme of the poem or the purpose of the poet.Poetry Improves Verbal Skills and Memory, Critical Thinking, Develops Empathy and Insight, Encourages Engagement with Other Art Forms.

The first poem *The Road not Taken* by **Robert Frost**, an eminent American Poet refers to the theme that life is full of choices which will spot our destiny. The speaker expends a second to think when he comes to a fork in the road, which denotes a preference he must make in his life. Ultimately, he has to make some choice, but he will spend the rest of his life preoccupied by, what could have happened if chose the other path. He thinks that the selection that he made "has made all the difference" in his life. Whether this is for better or for worse is vague.

By going through this poem students learn the literary devices and how to appreciate the poem like:

Diction: diverged, undergrowth, trodden and etc.

Imagery: visual imagery- "two roads diverged I a yellow wood", "To where it bent in the undergrowth", "In leaves no step had trodden black" etc.

Symbols: The road- the choice, a vital decision, direction of life
　　　　Two roads-two choices
　　　　Yellow wood-autumn
"It was grassy, it wanted wear"- the path is easier
　　　　 Morning- a new beginning.

Structure: Four stanzas of five lines.

Rhyme: ABAAB CDCCD EFEEF GHGGH. i.e. the first line of the stanza rhymes with the third and fourth line. The second line with the fourth.

Rhythm:iambic tetrameter, meaning that each line has four "feet."

Theme: indecision and making choices is the theme of the poem. In his opinion less travelled path is a better one. He believes that taking the less travelled path made a difference in his life.

Point of view: Thepoem is told from a first person point of view. The narratordescribes the events that happened to him during his journey. The reader has to understand the thoughts and actions of the narrator and his point of view.

The second poem in the selection is ***Night of the Scorpion.*** This poem is written by Nissim Ezekiel, a famous Indian English poet. It is based on Indian scenario of **superstition** and poet's Indian feeling. It represents an incident in the past when

the poet's mother was stung by a **scorpion**. At the cries of his mother the neighbouring peasants flocked to the poet's house like a swarm of bees with lanterns and candles. The superstitious peasants believed that the previous activities of sin is to be burnt away by the sufferingsand she may feel no painin the next birth. So the ignorant peasants wished that the poison must purify the poet's mother's body and soul. The poet's father believed in reason and logic. He applied his commonsense to mitigate his wife's pain. He poured some paraffin upon the bitten toe and put a flash of match-stick to it. Even a holy man was called to chant 'mantras' but everything is in vain; nothing happens or likes to be happened. After twenty hours the lady got relief from the pain and she thanked God that the scorpion did not sting her children.

Diction:diabolic, peasant, paralyse, lantern, sceptic, rationalist, paraffin, incantation, herb, hybrid, etc.

Imagery: 1. "flash of diabolic tail"-

Diabolic – associated with the Devil, who brings pain and darkness

    2. "peasants came like swarms of flies"

      Flies-magnitude of people

    3. More candles, more lanterns, more neighbours, more insects, and

the endless rain- the complete village is present at the scene

Throughout the poem, the imagery acted as a pathway to lead the reader into the scene of the action illustrated. Ezekiel's inclination to let a reader into this horrendous moment of his life was diaphanously tuned right through his use of imagery.

Symbols: 'scorpion', 'incessant rain', 'candles' 'neighbours', 'light', ' darkness', etc.

Structure: long poem with 48 lines. Ist person narrative. And third person as Ezekiel reports what the villagers said or did. Capitals avoided at start of lines except the first one at the beginning of the paragraph.Of the forty-eight lines, fifteen are regular tetrameters and seven are pentameters.

Rhyme: Free verse without any rhyme scheme but with regular iambic lines

Theme: Ezekiel narrates the unconditional love of a mother, who was stung by a scorpion.

Point of view: The poem is based on the Hindu belief of reincarnation, rebirth. It depends on the good/bad deeds of the previous birth. So the villagers say that due to scorpion bite and suffering the soul of the mother will be purified. She will get a noble birth or will get moksha.

The poet uses Indian English to bring out Indian culture and ideology. He uses the style 'poetry of situation' to depict the typical maternal reaction of selflessness on being bitten by a scorpion. He uses various poetic devices and colloquial language to bring out Indian belief system and values.

Colloquial expressions:

I remember the night my mother/ was stung by a scorpion. Ten hours

of steady rain had driven him/to crawl beneath a sack of rice.

Indian belief system and values:

a. 'May the sins of your previous birth/be burned away tonight, they said.'

b. May your suffering decrease/the misfortunes of your next birth, they said.'

c. May the sum of evil/balanced in this unreal world/against the sum of good /become diminished by your pain, they said.

d. 'Thank God the scorpion picked on me/and spared my children'.

Superstitious practices:

a. They clicked their tongues,/ With every movement that the scorpion made /his poison moved in mother's blood, they said.

b. I watched the holy man perform his rites/ to tame the poison with an incantation.

Conclusion: Thus the outcome based approach especially in Undergraduate courses focuses attention on student centered activities, which help to develop the needed knowledge and skills among the learner. Besides the existing pedagogical methods, student centered methods like assignments, seminars, field trips, project works, skill development activities, ICT enabled methods promote the development of LSRW and communication skills among the learners. The existing syllabi of the English language course, CSS are conducive to achieve the above said learners outcome to some extent. Yet there is need to revise it to make it a foundation for lifelong learning.

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Problem-Based Learning: An Overview of its Process and Impact on Learning

By

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Abstract

In this paper, an overview of the process of problem-based learning (PBL) and the studies examining the effectiveness of PBL is cited. And it also includes a discussion on a number of naturalistic and empirical studies that have examined the process of PBL and how its various components impact students' learning. It concludes that the studies comparing the relative effectiveness of PBL are generally consistent in demonstrating its superior efficacy for longer-term knowledge retention and in the application of knowledge. Studies on the process of PBL, however, are still inconclusive as to which component(s) of PBL most significantly impact students' learning, although causal studies have demonstrated that all the phases of PBL are necessary in influencing students' learning outcomes.

Keywords

Problem-based learning, Learning processes, Small-group collaboration, Self-directed study - Effectiveness of learning

1. Introduction

Problem-based learning (PBL) has been widely adopted in diverse fields and educational contexts to promote critical thinking and problem-solving in authentic learning situations. Its close affiliation with workplace collaboration and interdisciplinary learning contributed to its spread beyond the traditional realm of clinical education[1] to applied disciplines such as health sciences, business studies and engineering. With this growing practice and popularity of PBL in various educational and organisational settings there has been an increasing number of studies examining its effectiveness on the quality of student learning and the extent to which its promise of developing self-directed learning habits, problem-solving skills and deep disciplinary knowledge achieves its intended result. Much of the earlier studies on PBL have examined the effects of this approach within the curriculum with more recent studies delving deeper to examine how the processes within PBL lead to positive learning outcomes. This paper reviews a number of studies on the effectiveness and impact of PBL and how students learn in the process.

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2. Overview of PBL

In brief, PBL is a pedagogical approach that enables students to learn while engaging actively with meaningful problems. Students are given the opportunities to problem-solve in a collaborative setting, create mental models for learning, and form self-directed learning habits through practice and reflection.Hence, the underpinning philosophy of PBL is that learning can be considered a "constructive, self-directed, collaborative and contextual" activity. The principle of constructivism positions students as active knowledge seekers and co-creators who organise new relevant experiences into personal mental representations or schemata with the help of prior knowledge.This is further reinforced by social theories of learning that postulate the merits of social interaction in cognitive development.

In a typical PBL setting, learning is triggered by a problem which needs resolution. Dewey explains the cognitive element of learner engagement by describing how the origin of thinking is some "perplexity, confusion, or doubt" that is triggered by "something specific which occasions and evokes it." Students make connections to this "perplexity, confusion, or doubt" by activating their individual and collective prior knowledge and finding resources to make sense of the phenomenon; they also engage in peer learning through small-group discussions and consolidate their learning through reflective writing. Beyond enabling students to make sense of the concepts and subject matter, this learning experience is also likely to help students "develop understandings of themselves and their contexts, and the ways and situations in which they learn effectively".

PBL as a pedagogical strategy appeals to many educators because it offers an instructional framework that supports active and group learning—premised on the belief that effective learning takes place when students both construct *and* co-construct ideas through social interactions and self-directed learning.Its implementation can vary across institutions and programmes, but in general, it can be viewed as an iterative process made up of first, a problem analysis phase, a period of self-directed learning and lastly, a reporting phase.A tutor—also known as a facilitator—acts as a guide to scaffold students' learning, particularly in the problem analysis and reporting components of the PBL tutorial, as well as facilitate students' inquiry paths as they make sense of their ideas through discussion and sharing.

3. Studies on the effectiveness of PBL

Proponents of PBL claim that it helps improve the quality of learning by developing students' reflective, critical and collaborative skills. Studies on the effectiveness of PBL appear to be mixed, but have generally shown that students who have experienced PBL achieve similar or less learning gains when it comes to short-term knowledge acquisition when compared to students in a lecture-based learning environment. However, in terms of longer-term knowledge retention, the results are significantly in PBL's favour.In particular, Strobel and van Barneveld analysed a number of meta-analyses on the effectiveness of PBL and found that PBL is more

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effective than traditional approaches when the measurement of learning outcomes focused on long-term knowledge retention, performance or skill-based assessment and mixed knowledge and skills. It was only when the focus was on short-term knowledge acquisition and retention that PBL appeared less effective. PBL therefore appears to be a superior and effective strategy to "train competent and skilled practitioners and to promote long-term retention of knowledge and skills acquired during the learning experience".

The majority of studies on the effectiveness of PBL has focused on the field of medicine. Studying the effect of PBL in applied domains and professional education also offers new perspectives on its influence on student learning outcomes. The field of nursing education, in particular, has devoted a substantial amount of research to exploring the effectiveness of PBL in healthcare training in order to prepare nursing professionals for a growing range of patient care services. A meta-analysis of studies related to the effectiveness of PBL in nursing education revealed that PBL has positive effects on student satisfaction with training, clinical education and skills development. Another review of related literature on the effect of PBL on developing nursing students' critical thinking showed a positive relationship between the implementation of PBL as an instructional model and improvements in critical reasoning. Many of these studies are often localised, and their results and methods—while not necessarily generalizable—provide some pedagogical value as guidelines for nurse educators in considering training frameworks to design and deliver healthcare curriculum. More rigorous research is needed to further examine the effects of PBL on student learning outcomes and performance in both academic and workplace situations.

A recent empirical study adds further evidence to the effectiveness of PBL. The authors randomly assigned groups of students to one of three conditions (PBL, lecture-based or self-study groups) and found that students in the PBL group had a higher likelihood of conceptual change, outperforming those assigned to both of the other two conditions in conceptual tests immediately after the lesson, as well as in a delayed post-test after one week. Although this study is useful in supporting the efficacy of PBL, the authors acknowledged that more still needs to be done to better understand the processes involved within the PBL framework that enhance learning.

The next part of the review focuses on studies that have attempted to examine in greater detail the processes and mechanisms where PBL achieves its effectiveness.

4. Studies on the process of PBL

There are a number of naturalistic descriptive studies on the process of PBL. One such study analysed the students' collaborative interactions in the problem analysis and reporting phases of the PBL process, with the authors finding out that elaborations and co-constructions both occurred during these PBL phases, but that elaborations were taking place less frequently compared to co-constructions. In a follow up study, the authors illustrated in detail the impact of collaboration on

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learning, showing how questions, reasoning and conflict led to elaborations and co-constructions by students during the reporting phase. However, there were no descriptions of the self-directed learning phase of the PBL cycle. The study also did not examine how (if at all) such interactions impact on students' learning achievements.

Another study similarly analysed in detail how students construct their knowledge in a PBL tutorial throughout the problem analysis and reporting phase. The discourses of students and facilitators were examined and described to show how both groups played important roles in the collaborative and collective knowledge building. This study provided important insights into how an expert facilitator effectively used open-ended met cognitive questions to facilitate students' discussion and how students' collective knowledge developed throughout verbal interactions within the PBL tutorial. However, the relationship, if any, between the quality of students' verbal contributions with their subsequent learning achievements were not examined here.

The studies discussed above mainly examined two of the PBL phases—the problem analysis and reporting phases. However, there is much less research examining the phase of individual, self-directed study. One study examining the self-directed learning phase investigated the link between student-generated learning issues during the problem analysis phase with what students actually studied during their self-directed study time, with results showing that students only made use of the learning issues that they generated in the problem analysis phase to determine their self-directed study activities to some extent: what they did during the self-study phase was also influenced by factors like tutor guidance and the availability of learning resources. Another study focusing on the self-study phase found that students who studied beyond the learning issues generated by the tutorial group during the initial problem analysis phase achieved better test results. As both these studies relied on students' retrospective self-reports, these results may be somewhat biased.

Although the studies highlighted above provide insight into the specific learning phases of the PBL cycle, there are fewer studies which investigate the entire PBL process inclusive of all phases. One study tested a causal model relating input variables such as problem quality, tutor performance and students' prior knowledge; process variables such as group functioning and time spent on self-directed study; and learning outcomes. The authors found that the quality of a problem influences group functioning, which in turn has a strong impact on how much time is spent on individual study. More time spent on individual study also led to increased learning achievements. This model was further refined in another study that examined in greater detail what actually happens to learners in the processes of problem analysis, individual study and reporting. Here the authors found that the quality of learning issues generated during the problem analysis phase had an influence on the extent to which they were used during individual study. Increased usage of

learning issues during self-directed study also had an impact on the quality of students' research in terms of orientating them towards deeper explanations, which then influenced the depth of discussions during the reporting phase. Finally, the 'depth' of reporting positively influenced the students' achievement.

Both of the above causal models are useful in helping us better understand the relationships among the key variables within the PBL process. However, as recognised by the authors, there is a limitation to both studies as the data were obtained from self-reports of students. It has been argued that the research required to understand how students' learning is impacted by the specific phases of the PBL process needs to be focused on the specific learning activities that take place within the phases.

One study that attempted to focus on the activities taking place in the PBL process examined in detail the verbal interactions of the entire process of a PBL cycle, including the self-directed learning period. The authors sought to investigate the extent to which PBL engenders certain learning dispositions towards constructive, self-directed and collaborative learning, since theories of learning assume that these learning activities are essential in the learning process. They observed all three activities within the PBL cycle under study, albeit to different extents, with 53.3% of episodes observed as being collaborative; 27.2% self-directed; and 15.7% constructive. Another study used structural equation modelling to demonstrate the validity of the PBL process of problem analysis, followed by self-directed learning, and a final reporting phase as described in the PBL literature. Lack of fit of models with data showed that it is not possible to describe learning in PBL only in terms of collaborative learning, nor only in terms of individual self-directed learning. Rather, as the sequential influence of one PBL phase to the next was essential in impacting student learning outcomes.

However, another study revealed different findings. Using a subtractive method, the authors showed that the effective component in PBL appears to be engagement with the problem rather than the social collaborative aspect—they found no significant difference in the performance of students who were assigned to a PBL team learning condition and those who were assigned to a PBL individual condition.Both of these groups did significantly better than students assigned to the lecture condition. As the authors emphasized, this does not mean that the social collaborative component of PBL is not necessary; however, more rigorous studies are still required to ascertain the extent to which the various components of PBL impact students' learning.

5. Conclusion

In conclusion, the studies reviewed above suggest that PBL is an effective teaching and learning approach, particularly when it is evaluated for long-term knowledge retention and applications. One gap in earlier studies on the effectiveness of PBL is that the studies tended to focus on medical education. However, there are now increasing number of experimental studies in other disciplines that provide evidence

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of the superior performance of students learning in PBL conditions as opposed to lecture conditions.In terms of which phases or components of the PBL process influence students' learning, causal models suggest that the PBL process, as described by the PBL literature, that begins with problem analysis, followed by self-directed learning and a subsequent reporting phase, is important to predict students' learning, and that having only the collaborative component or the self-directed learning component is insufficient.However, another study suggests that student engagement with the problem is sufficient to enhance students' learning gains over the traditional approach and the collaborative component did not make a significant difference to student learning.[41] More rigorous controlled experimental studies therefore need to be carried out to further uncover the mechanisms behind how PBL works.

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Programme Specific outcomes in Political Science, Y.Sailaja, Assistant Professor in Political Science, Ch.S.D.St.Theresa's Autonomous College for Women,Eluru.

Programme Specific outcomes in Political Science

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PSO 1: Familiarity with different approaches to the study of political sciences and an ability to apply the Concept and theories of Political science . The students will develop and be able to demonstrate academic proficiency in the subfields of Indian Government and Politics, Local Government, International Relations, Public Administration, Political Theory and Political Thought.

PSO2:The course curriculum inculcates among students a basic understanding of the rights and duties of citizenship and thereby to act as responsible citizens through the observation of important days such as Independence Day, Republic Day and also spreading awareness in society through street plays based on specific socio political issues such as domestic violence, disillusioned youth of the materialistic world etc.

PSO3: Establishment of linkages between academics and civil society at large so as to successfully address socio political problems. The fortnightly wall journal is a means for keeping the entire student population up to date with political occurrences both global and domestic. Debates, seminars and panel discussions are also regularly organized on relevant themes and participation is sought from experienced resource persons

PSO4: Students will develop and be able to demonstrate skills in conducting as well as presenting research in political science. The Students will develop and be able to demonstrate skills in analytical and critical thinking.

Course Outcomes Political Science

Paper I Basic Concepts of Political Science

CO1: Analyzing what is Politics and explaining the approaches to the Study of Political Science – Normative, Historical and Empirical Traditions

CO 2: Assessing the theories of State (Origin, Nature, Functions): Contract, Idealist, Liberal and Neo-Liberal Theories.

CO 3: Explaining the Concept of State Sovereignty: Monistic and Pluralistic Theories, Analyzing the changing concept of Nation and Nationality.

CO 4: Classification of Rights of Indian Citizen and Citizenship and Understanding basic concepts of Liberty, Equality, and Justice.

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Paper II: Political Institutions (Concepts, Theories and Institutions

CO1: Students will get aware of the different political systems that are working throughout the world.

CO 2: Students get interest in knowing about the working of constitution and constitution law in various countries.

CO 3: They will understand the inter link between the organs of the government.

CO 4: They will get knowledge about democracy, and the differences between direct and indirect democracy.

PAPER III:INDIAN CONSTITUTION

CO1: Introducing the Indian Constitution with a focus on the role of the Constituent Assembly and examining the essence of the Preamble.

CO 2: Examining the Fundamental Rights and Duties of Indian citizens with a study of the significance and status of Directive Principles.

CO3: Assessing the nature of Indian Federalism with focus on Union-State Relations.

CO 4: Critically analyzing the important institutions of the Indian Union: the Executive: President; Prime Minister, Council of Ministers; The legislature: RajyaSabha, LokSabha, Speaker, The Judiciary: Supreme Court composition and functions- Judicial Activism

CO5: Looking at the Constitutional Amendment Procedure with focus on the main recommendations of the Constitutional Review and Basics Structure of Constitution

Paper IV:INDIAN POLITICAL PROCESS

CO1: Teach and Evolution of Approach to Study the political process in India - they Examine Modernization and Marxian Approach.

CO 2: Evaluating the role of various forces on Indian politics: Communalism and Secularism and Religion at peasants.

CO 3: Critically evaluating the Indian Party system – its development and looking at the ideology of dominant national parties and Regional Parties. Evaluating the Electoral Process in India and assess how elections affect the behavior of public officials.

CO 4: Investigating the Andhra,Telangana agitations and Naxalite movement

CO 5: Analyzing the new Government programmes working like swatch Bharath,Make in India and Made in India and National Skill Development Corporation. They Provide awareness in this programmes

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Programme Specific outcomes in Political Science, Y.Sailaja, Assistant Professor in Political Science, Ch.S.D.St.Theresa's Autonomous College for Women,Eluru.

Paper V: INDIAN AND WESTERN POLITICAL THOUGHT

CO 1:- Providing an insight into the dominant features of Ancient Western Political Thought: Ancient Greek political thought with focus on Aristotle and Plato; Roman Political Thought: its contributions with special emphasis on the emergence of Roman law.

CO2:- Examining the features of Ancient I Political Thought. They Evaluating the Manu Varnadharma and Dandaneeti; political thought of Reformation; and Machiavelli.

CO3:- Critically examining Hobbes as the founder of the science of materialist politics; Locke as the founder of Liberalism with focus on his views on natural rights, property and consent; and Rousseau's views on Freedom and Democracy; Bentham's Utilitarianism; and John Stuart Mill's views on liberty and representative government.

CO 4:- Analysing the nationalist thought of Raja Ramamohan Roy and Assessing the nationalist thought. Discussing the roots of communalism- Savarkar and Hindu Nationalism and Jinnah and the two nation theory.

CO 5: - Discussing the nationalism of Gandhi, M. N. Roy, Narendra Devanand.Analyzing the Gandhian.

PAPER VI:PRINCIPLES OF PUBLIC ADMINISTRATION

CO 1:- Explaining the nature, scope and evolution of Public Administration; Private and Public Administration;

CO 2-: Discussing the, Classicalapproach, Scientific Management approach, Human Relations approach, Ecologicalapproach and Decision Making approach to Pub. Adm.

CO 3:- Analysing the Administrative Processes: decision making; communication and control; leadership; co-ordination and Line and Staff agencies

CO 4:- Examining the Institutions of Personnel Administration in India and evolution of Motivational Theories.

PAPER VII: LOCAL SELF GOVERNMENT IN ANDHRA PRADESH

CO1 : Examining the Institutions of Local Self Government in India, Local self government implies the transference of power to rule to the lowest rungs of political order .It is form of democratic decentralization where the participation of even the grass root level of the society is ensure in the process of Administration

CO2: They understand the knowledge on evolution of local self Government and recommendations of Balwantrai, Ashok Mehta committee's clear idea on 73[rd]and74[th]constitutionalamendments.

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CO3: The analysis of the structure and functions of Rural and urban governments and applying knowledge on role of leadership and Emerging challenges

CO4:They are aware of thestrategies of rural development and role of people participation in ruraldevelopment.

Paper VIII (a)-C1: International Relations

CO1:Students get the understanding about the different nations and relations between them.

CO2:Knowing about the post – world war scenario, makes them to realize importance of peace and adversities of conflict.

CO3:A strong hold on international relations will give them success in competitive exams like UGC-NET, SLET, and Civil Services etc.

CO4:Choosing international relations as the career will give them employment in NGOs and other international organizations.

CO5: As a broad in its scope, it has a many chance in taking up research and taking up research in international relations will have bright career.

Paper VIII (b)-C2: India's Foreign Policy

CO1:Students get interest in knowing the relations of various countries with India, which makes them to follow contemporary events happening in foreign policy.

CO2:Brings them awareness on trends in India's foreign policy since the time of independence to till today.

CO3:It creates interest to know the social culture and political culture of various nations all over the world.

CO4:It is helpful while writing competitive exams like UGC NET, SLET and Civil Services.

C05: As because of its vast area of study gives more opportunities for students while choosing foreign policy as their area of research.

Paper VIII (c)-C3: Contemporary Global Issues

CO1:Students get affinity with international community and show their responsibility towards the problems of the world.

CO2:They try to find various solutions for the post globalization problems.

CO3: Helpful for students while writing competitive exams like UGC NET, SLET, APPSC, UPSC, RRB, SSC etc.

CO4:Encourages the students to choose area for research purposes. And Leads them to understand the importance of reading international problems in Political Science.

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గంగా శంతనుల కథ- ఉత్తమ మానవ విలువలు

జమ్మలమడక లలితా ద్రాక్షాయణి

సెయింట్ ఆన్స్ మహిళా డిగ్రీ కళాశాల

విజయనగర్ కాలనీ మల్కాజ్గిరి హైదరాబాద్ 500047

భారతీయ ధర్మానికి, భారతీయ నిదర్శనానికి, సంస్కృతికి ప్రాణధరమైనది మహాభారతము సంస్కృతములో వేద వ్యాస మహర్షిచే విరచితమైన మహాభారతము తెలుగులో ముగ్గురు వేర్వేరు కాలానికి చెందినవారు ఆంధ్రీకరించటం అద్భుతమైన విషయం. వారే నన్నయ్య, తిక్కన, ఎర్రనఆంధ్ర కవిత్రయం.రాజమహేంద్రవరాన్ని రాజధానిగా చేసుకొని చాళుక్య సామ్రాజ్యమును పాలించిన రాజరాజ నరేంద్రుని ఆస్థాన కవి నన్నయ.కాబట్టి నన్నయ కాలము 11 శతాబ్దము.

శ్రీ మహాభారతమును నన్నయ భట్టారకుడు, సకలలోక రక్షకులు, ఆద్యులు అయి శ్రీలక్ష్మిని వక్షస్థలం వింతన శ్రీ సరస్వతిని ముఖస్తానంలోను శ్రీ గిరిజాదేవిని అర్ధశకరంలోను నిలుపుకున్న వేద త్రయి మూర్తులు, శ్రీ మహావిష్ణువుని, బ్రహ్మకు శ్రీ కందుని స్తుతించి ప్రారంభించారు.తెలుగులో మొదటి కావ్యకర్త నన్నయను "ఆదికవిగా" ఆంధ్రజాతి గర్విస్తున్నది. తెలుగు బాషకు ఒక సుస్థితి నేర్పరచి, కవ్యరచనకు యోగ్యమైన పదజాలాన్ని సృష్టించిన వాడు కాబట్టి "శబ్దశాసనుడు" అయ్యాడు మహాభారతములో పాటు నన్నయ "ఆంధ్ర శబ్దచింతామణి అనే వ్యాకరణ గ్రంథం కూడ రచించాడు అని విద్వాంసులు అభిప్రాయం.గంగా శాంతమల కథ నన్నయ భట్టారకుడు రచించిన ఆదిపర్వం చతుర్ధాశ్వాసం నుండి గ్రహించి బడినది.

ఈ పాఠ్యభాగం డిగ్రి విద్యార్థులకు సెమిస్టర్ పెట్టడం వలన విద్యార్థులు ఆదికవి ఎవరు ? మహాభారతం అంటే ఏమిటి ? మన తెలుగు కవులు పాండిత్యం , వాళ్ళు వ్రాసిన కావ్యాలు, తెలుగు పదకోశాలు, పద జాలాలు, వ్యాకరణము మొదలగు విషయాలు నేర్చుకొంటారు. పోతనలాంటి ప్రాచీన కవులను వారి పాండిత్యాన్ని చాళుక్య రాజులు తమ రాజసభలో ఎంతో గౌరవించే వారు. ఈ నాటి యువతరానికి ఇవేమీ పట్టవు .ఆనాడు "రాజు యొక్క సంపద పండితుల పాండిత్యం నందు గడ్డిపోచతో సమానం" అనే అభిప్రాయం ఉండేది.

ఎంత గొప్ప మహారాజు అయిన పండితులకు రాజు కిరేటం తీసి క్రిందపెట్టి పండితులు, కవుల పాదాలకు పాదాభివందనం చేసేవారు. అంటే ఆ రోజుల్లో గురువుకి అంత గౌరవం ఇచ్చేవారు. ఈ నాటి సమాజం యువతరం గురువుకి గౌరవాన్ని ఏ విధంగా ఇవ్వాలో తెలుసుకోవడం కోసం వాళ్ళని పరిచయం చేశారు.మహాభారతము "పంచమవేదం" దీనికి జయమని మరోపేరు. మానవుడు ధర్మార్ధ కామమోక్షములను సమకూర్చుకొను మహా ప్రయత్నములో జయమును కలిపించు జీవన విధానము

మహాభారతమునందు ప్రస్తా వించబడింది వ్యాస మహర్షిని సరస్వతిని స్తుతించి భారతము పఠించు వారికి మానవి జీవిత రహస్యములు కరతలకముల అవుతాయి.

"గంగా శతమల కథ" లో గంగా శంతమల సమాగము, వసువులు చరిత్ర , గంగ స్వర్గానికి వెళ్ళడం, వసువుల అంశతో భీష్ముడు జన్మించడం మొదలైన విశేషాలు అభివర్ణించడం జరిగింది.మహారాజైన శంతనునికి దేవనదియైన గంగకు ఎలా సంగమం జరిగింది. వారికి మహాపురుషుడైన భీష్ముడు ఎలా జన్మించాడనే సంగతిని జనమేయ మహారాజుకి వైశంపాయకుడు వివరించాడు.

ఈ రోజు డిగ్రీ విద్యార్థులకు ఈ కథ ఎలా ఉపయోగ పడుతుంది. అంటే కుటుంబ వ్యవస్థ అంటే ఏమిటి తల్లి, తండ్రి, తాత, ముత్తాతలు, అన్నదమ్ముల అనుబంధం, పెద్దలను గౌరవించడం రాజ్యపరిపాలన దాయాదుల సామ్రాజ్యం పితృస్వామిక కుటుంబం, మాతృస్వామిక కుటుంబం, మహాభారతం రాజులు, పరిపాలన వ్యవస్థ అన్ని కూడా ఈనాటి సమాజంలో యువతరానికి ఆదర్శప్రాయంగా ఉండాలని, మహ భారతం గురించి స్త్రీ ఔన్నత్యం గురించి తెలియజేయడం కోసం పాఠ్యాంశంగా ప్రవేశపెట్టారు.

ఇక్ష్వాకు వంశంలో మహ భిషుడనే రాజు ఉండేవాడు. అశ్వమేధ యాగాలు, వందరాజసూయ యాగాలు చేసి ఇంద్రాది దేవతలను సంతృప్తి చేశాడు. దేవలోకానికి వెళ్ళి బ్రహ్మను ఆరాధిస్తుండేవాడు. ఆ సందర్భంలో గంగానది" ఒక స్త్రీ రూపంలో బ్రహ్మసభకు విచ్చేసింది. అప్పుడు గాలితాకిడికి ఆవిడ ఉరుమూలం కనిపించేటట్లు అమెచీర ఒకింతతొలగగా దేవతలందరూ సిగ్గుతో తలొంచుకున్నారు. మహాభిషుడు సాభిలాషుడై ఆమెను అలానే చూస్తుండిపోతాడు దీనిని గమనించిన బ్రహ్మదేవుడు కోపంతో మానవలోకంలో పుట్టమని" శపించాడు.

అంటే దీని బట్టి మనం అర్థం చేసుకొనేది ఏమిటంటే "పరస్త్రీ" తల్లితో సమానం. హిందూ సమాజంలో స్త్రీని గౌరవించని వాడు మానవలోకంలో పుడతాడు. అతనికి దేవలోకంలో అర్హత లేదు. కామ, క్రోధ,లోభ, మోహ, మద, మత్సర్యాలను జయించి ఎవడైతే దైవత్యం పొందుతాడో వాడే మోక్ష సాధకుడు. అందువలన పర స్త్రీలను తల్లితో సమానంగా దేవత లాగా దైవత్వంలో చూడాలి. సమసమాజం స్త్రీని గౌరవించాలి.స్త్రీగా గంగా వ్యక్తిత్వాన్ని చూస్తే ..

<u>అష్ట వసువులు తమ శాపాన్ని గంగతో చెప్పడం</u> : వసువులు గంగతో "మేము వశిష్ట ముని శాపం వల్ల భూలోకంలో ఎవరైనా ఒక స్త్రీకిపుట్టాలనివెళుతున్నామని ,మేము వేరే చోట పుట్టలేం నీకు కొడుకులుగాపుడతాం.మహభిషుడు శంతనుడై పుడతాడు. అతనికి నీకూ సంగమమవుతుంది.అతడే మాకు తండ్రి అవుతాడు"ని చెటుతారు.గంగ విని సంతోషంతో 'నా కోరిక కూడా అలాంటిదే. నాకూ ఇష్టమే.మీ కోరిక నెరవేరుస్తాను. మీరు నిశ్చింతగా వుండండ'నిచెప్పి ఒప్పుకుంటుంది.అయితే మీరు మాకు ఇంకొక ఉపకారం

చెయ్యాలి.అదేమంటే "మేము పుట్టిన వెంటనే భూమి మీద ఎక్కువ కాలం వుండకుండా నీళ్ళలో పడవేయండి"అని వసువులు గంగను వేడుకుంటారు.

<u>గంగ తన కోరికను వసువులతో తెలపడం:</u>అందుకు గంగ వసువులతో 'అలాగే చేస్తాను. కానీ నాకు ఒక దీర్ఘాయువు కల కొడుకుని మీరు ఇవ్వండి'అని అంటుంది .వసువులు 'మాలో ఒక్కొక్కళ్ళ నాల్గవ అంశాన్ని ధరించి,ఉత్తమ శీలము ,

దీర్ఘాయువు , విశాల భుజాలు కలవాడై అష్టమ వసువు ప్రభాసుడు మానవలోకంలో నీకు కొడుకై పుడతాడు'అని చెటుతారు.ఒకరికొకరు కట్టడిచేసుకుంటారు.గంగ వసువులకు సహాయం చేస్తుంది.వసువులు ఆమెకు సహాయపడతారు.

<u>గంగ ఆంక్షలు :</u> గంగ శంతనునితో "ఓ రాజా!నన్ను నీ భార్యగా స్వీకరించాలనేకోరిక నీకు వున్నట్లైతే నాతో ఒక ప్రతిజ్ఞ చెయ్యి.అదేమంటే నేనేమి చేసినా అంగీకరించాలి.అడ్డు చెప్పకూడదు.ఇష్టంలేని మాటలు మాట్లాడకూడదు.అలా మాట్లాడితే నిన్ను విడిచి వెళ్లిపోతాను"అని చెప్పగా,శంతనుడు ఒప్పుకుని ఆమెను పెళ్లి చేసుకుంటాడు.అంటే గంగా ఒక స్వతంత్ర వ్యక్తిత్వం కల వ్యక్తిగా కనపడుతుంది. అలాగే కొడుకుని తానే తీసుకెళ్లి పెంచుకుంటుంది.

ముగింపు: అదే మన పురాణాలు,ఇతిహాసాలు,మహాభారతం,భాగవత సందేశాలందించాయి.దీనిని ఈనాటి నవసమాజం గ్రహించి సన్మార్గంలో ప్రయాణంచేసి జీవిత పరమార్థాన్ని గ్రహించాలి. అందుకే దీన్ని పాఠ్యంశంగా ప్రవేశపెట్టారు.

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వ్యక్తిత్వ వికాసానికి ఉత్ప్రేరకాలు–సాహితీ విలువలు

డా . గుండ్లూరు వెంకట రమణ .&పి. నాగ లక్ష్మి

తెలుగు శాఖాధ్యక్షులు

అక్కినేని నాగేశ్వర రావు కళాశాల, గుడివాడ .

ఒక తల్లికి ఒక శిశువు పుట్టిన తర్వాత ఆ శిశువు తన ఇంటి నుంచి,తన చుట్టూ వున్న సామాజిక పరిస్థితుల నుంచి సంక్రమించిన కొన్ని లక్షణాలను , తనలో నిలుపుకొని , తన ప్రయత్నం ద్వారా మరి కొన్ని విశిష్ట లక్షణాలను సంపాదించుకొని, వాటిని   సమన్వయించుకున్న మూర్తిమత్వమే వ్యక్తిత్వం అని అంటాం. మన చుట్టూ వున్న సమాజంతో మన మెలా ప్రవర్తిస్తున్నామో తెలిపేదే మన వ్యక్తిత్వం. మనుషుల పట్ల మనం ప్రవర్తించే తీరు వ్యక్తిత్వం. ఒక మనిషి ఎంత ఎదిగినా అతను ఒదిగి వుంటే అతని వక్తిత్వం వికాసం చెందిందని చెప్పవచ్చు.

ఒక మనిషి తన జీవితం లో వికసించాలంటే ఈ కిందివి తప్పకుండా చెయ్యాలి. విద్యార్థి ఈ పాటాన్ని చదువుకోవడం వల్ల తన వ్యక్తిత్వాన్ని జీవితమంతా వికసింపజేసుకునే అవకాశం ఉంది.

➢ సమాజంలో బతకడం ఎలాగ : సమాజంలో ఎలా బతకాల్నో నేర్చుకోవాలి. ఎలాగైనా బతకడం బతుకు కాదని గ్రహించాలి.

➢ కలసి మెలసి వుండటం: అందరితో కలిసి జీవించడం, అందరినీ అర్థం చేసుకోవడం, ఇతరుల మనస్తత్వాలతో సర్దుకుంటూ సమరస్యంగా బతకాలి. ఇదే గొప్ప వ్యక్తిత్వానికి నిదర్శనం.

➢ సర్దుకోవడం: కుటుంబంలో అందరితో సర్దుకోవాలి. అమ్మ నాన్న అక్క అన్న చెల్లి తమ్ముడు అత్త మామ ఇలా అందరితో సర్దుకోవటం నేర్చుకోవాలి . అప్పుడే మనం చదువుకునే చోటా, పని చేసే చోటా అందరినీ సర్దుకుంటాము.

➢ సవాళ్లను ఎదుర్కోవడం: జీవితం అనేక సవాళ్ళతో కూడుకొని ఉంటుంది. అన్నిటినీ ధైర్యంగా ఎదుర్కోవాలి. వాటిని పరిష్కరించుకోవాలి. సవాలకు భయపడి పారిపోరాదు.

➢ ఆశావాద దృప్పథం: సహజంగా మనిషి ఆశా జీవి. బతుకు పోయాట్ల ఆశావాద దృక్పథాన్ని అలవర్చుకోవాలి. నిరాశా నిస్పృహల్ని విడనాడాలి. ఎప్పుడూ పొజిటివ్ థింకింగ్ ఉండాలి. ఆశావాదం మానవ ప్రస్థానానికి కర దీపిక.

➢ అనుకూల ఆలోచన : అనుకూల ఆలోచన మనిషి అభివృద్ధికి పతాక. పరిస్థితులన్నిటినీ మనకనుకూలంగా మలచుకోవాలి.

➤ ఆత్మ విమర్శ : మనం చేసే పొరపాట్లని ఇతరులు ఎత్తి చూపక ముందే మనల్ని మనం సరిచూసుకోవాలి. దీన్నే ఆత్మ విమర్శ అంటాం. ఇది మన వ్యక్తిత్వ వికాసానికి ఎంత గానో తోడ్పడుతుంది .

➤ తార్కికత: ఇది వ్యక్తిత్వ వికాసానికి ఓ బలమైన టానిక్కు అని చెప్పవచ్చు. ఏదైనా చేసేటప్పుడు ఏది? ఎందుకు ? ఎప్పుడు? ఎవరు? అని ప్రశ్నించుకుని తర్వాత ముందుకెళ్లాలి .

➤ శ్రమతత్వం: ఈనాడు సమాజంలో శ్రామికులు లేకపోతే ఉత్పత్తే లేదు. మనం ఇప్పుడు అనుభవిస్తున్న సదుపాయాలన్నీ ఎవరో ఒకరు శ్రమ పడితే వస్తున్నవి. వీటిని పొందుతున్న మనం శ్రమ పడటం అలవర్చుకోవాలి.

➤ హక్కులు బాధ్యతలు: మన భారత రాజ్యాంగం ప్రతి వ్యక్తికి కొన్ని హక్కుల్ని ప్రసాదించింది. పౌరుడు హక్కుల్ని సాధించుకుంటూనే సమాజం పట్ల తనకున్న బాధ్యతని విస్మరించకూడదు. వైయక్తిక, కుటుంబ సామాజిక బాధ్యతల్ని చక్కగా నిర్వర్తించాలి .

➤ పశ్చాత్తాపం: జీవితంలో ఏదైనా అనుకోకుండా తప్పు జరిగితే అదెలా జరిగిందో దాన్ని తెలుసుకోవడం, తప్పుని ఒప్పుకోవడం, అదే తప్పుని సరిదిద్దుకోవడం, పశ్చాత్తాప పడటం గొప్ప వ్యక్తిత్వానికి నిదర్శనం.

➤ తక్కువ తీసుకోవడం, ఎక్కువ ఇవ్వడం: ఎవరి నుంచైనా మన ఏదైనా తీసుకునేటప్పుడు తక్కువగా తీసుకోవాలి. అదే మనం ఇచ్చేటప్పుడు ఎక్కువగా ఇవ్వాలి. "మా ఇంటికొస్తే ఏం తెస్తారు మీ ఇంటికొస్తే ఏమిస్తారు" అన్న చందాన ఉండకూడదు. స్వార్థం పేరాస ఉండకూడదు.

➤ నిర్భయత్వం: సింహం వలే ఎప్పుడూ ధైర్యంగా, నిర్భయంగా ఉండాలి. దేనికీ ఎప్పుడూ భయపడకూడదు. తప్పు చేస్తేనే భయపడాలి.

➤ నిస్సంకోచం : దేన్ని సందేహించకూడదు. ఇది నా వల్ల అవుతుందా అనుకోకూడదు. ప్రయత్నం చెయ్యాలి . కూచుని తింటే కొండలైనా కరిగి పోతాయి కాబట్టి ప్రయత్నం చేస్తే ఏదో కొంత సాధించవచ్చు.

➤ మాట తీరు: మృదు భాషణం ఓ గొప్ప అలంకారం. మాటే మర్యాద పలుకే ప్రియం అన్నారు పెద్దలు. కాబట్టి మన మాట మర్యాదకరంగా ఉండాలి, మృదువుగా ఉండాలి. అప్పుడే మన వ్యక్తిత్వం వికశిస్తుంది .

➤ సమయ పాలన: సమయం అన్నిటికంటే చాలా విలువైనది. పోతే రాదు కాబట్టి సమయమున్నప్పుడే దాన్ని సద్వినియోగం చేసుకోవాలి. అన్నిటికి ఒక స్పష్టమైన సమయాన్ని నిర్ణయించుకోవాలి.

➤ నిబద్ధత : మనం చేసే పనిలో నిబద్ధత ఉండాలి 18.

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➢ నమ్మకం : మన మీద మనకు ఎప్పుడూ నమ్మకం ఉండాలి.

➢ అర్ధవంతమైన ఆశ కలిగి వుండటం: మన ఆశకు ఒక అర్ధం వుండాలి. ఏదంటే అది ఆశించకూడదు.

➢ జ్ఞాన సముపార్జన; ఎక్కువ పుస్తకాల్ని దినా పత్రికల్ని చదివి జ్ఞానం సంపాదించుకోవాలి.

➢ పరస్పర సహకారం ; ఒకరినోకరు సహకరించుకోవాలి.

➢ నిరంతర అధ్యయనం ; నిరంతర అధ్యయనం ఒక వ్యసనంగా ఉండాలి.

➢ అన్వేషణ: ఏదో ఒక కొత్త విషయాన్ని అన్వేషిస్తూ ఉండాలి.

➢ గొప్ప సామాజిక స్వప్నం వుండటం: సమాజం పట్ల ఒక గొప్ప స్వప్నం ఉండాలి.

➢ ముగింపు: నెల్సన్మండేలాను చూస్తే ఆయన శ్వేత జాతీయులు చూపే వివక్షను నిర్మూలించడానికి ఎంతో కష్టపడ్డారు ఆయన ఏనాడూ నిరాశ పడ లేదు. ఉద్యమాన్ని విరమించలేదు .అందుకనే విజయం సాధించారు .చెంబులో సగం దాకా నీళ్ళున్నాయి అని చెప్పడం ఆశా వాహ దృక్పథం. సానుకూల ఆలోచన .'గత కాలము మేలు వచ్చు కాలము కంటిన్ 'అనే వాక్యానికీ' మంచి గతమున కొంచెమేనోయ్ 'అన్నవాక్యానికి ఎంతో తేడా ఉంటుంది. మొదటిది ఆశావాదం .రెండవది నిరాశావాదం . కాబట్టి విద్యార్ధి తనలో ఒక సానుకూల ఆలోచనని ఆశావాద దృక్పథాన్ని అలవర్చుకుంటాడు.

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వ్యక్తిత్వ వికాసానికి రాచబాటలు

డా॥ డి. శ్రీనివాసులు, ఎం.ఏ., పిహెచ్.డి.,
తెలుగు అధ్యాపకులు,ఎన్టీయార్ ప్రభుత్వ డిగ్రీ కళాశాల,
వాయల్పాడు, చిత్తూరు జిల్లా.

ఉపోద్ఘాతం: ప్రస్తుత స్నాతక విద్యలోని మూడు సెమిస్టరులలో ఉన్న తెలుగు పాఠ్యాంశాలు విద్యార్థుల సర్వతోముఖ వ్యక్తిత్వ వికాసానికి రాచబాటలు పరుస్తున్నాయి.పాఠ్యాంశాల ఎంపికలో సంపాదకవర్గం ప్రశంసనీయమైన పరిశ్రమను,విజ్ఞతను ప్రదర్శించింది.సంపాదక వర్గం స్నాతక విద్యార్థుల వయస్సును, పరిపక్వతను, ఈ వయసులో వారి విద్యావసరాలను బాగా గుర్తించిదృష్టిలో పెట్టుకున్నట్టు అది ఎన్నుకున్న పాఠ్యాంశాలను పరికించి చూస్తే అవగతమవుతుంది. విద్యార్థులు స్నాతకస్థాయి పట్టా పొందడానికి తగ్గ వయసుకు చేరుకున్న తరుణంలో వారికి ఇంకా కల్లబొల్లి కాకమ్మ కథలు కాకుండా వాస్తవ జీవితానికి అతి సమీపంగా తీసుకెళ్ళే వాటినే పాఠ్యాంశాలుగా పెట్టాలని సంపాదకులు కృతనిశ్చయం చేసుకున్నట్టు స్పష్టంగా కనిపిస్తున్నది. ఇలాంటి ఒక దృక్కోణంతో ప్రస్తుత స్నాతకవిద్యలో ఉన్న కొన్ని తెలుగు పాఠ్యాంశాలను పరిశీలించడం ఈ వ్యాసోద్దేశం.

మొదటిసెమిస్టరులో మొదటి పాఠ్యాంశం "గంగాశంతనుల కథ"(ఆంధ్రమహాభారతం, ఆదిపర్వం, చతుర్థాశ్వాసం) ఎంపిక సంపాదకులు చేసిన ఒక సాహసోపేతమైన చర్య. ఎందుకంటే ఈ కథలోని వస్తువుచాలా సున్నితమైనది. దీన్ని బోధించడానికిట రకంగా కత్తిమీదసాము చేయాల్సిందే. ఉపాధ్యాయుడు ప్రతిభావంతుడు, సంయమనం కలవాడు కాకపోతే ఈ పాఠ్యాంశం బోధించడం చివరికి వివాదాలకు కూడా దారి తియ్యొచ్చు. ఎందుకంటే పైకి చూడ్డానికి ఈ కథ ఒక బూతుకథలా కనబడుతుంది.అయినా సరే విద్యార్థులకు వారి వయసు దృష్ట్యా లైంగిక జీవితాన్ని, దాంపత్యజీవిత ధర్మాలను అనివార్యంగా పరిచయం చెయ్యాలని సంపాదకులు భావించారు.

గంగాశంతనుల కథ పెళ్లి అనేది స్త్రీపురుషుల మధ్య ఒక అవగాహన, ఒకానొక ఒప్పందం మాత్రంగానే ఉండాలని, అది కాస్తా బలవంతపు కాపురం కారాదని లోలోపలే వక్కానిస్తుంది.ఈ కథ దాంపత్యజీవితాన్ని సుఖదాయినిగా, పవిత్రమైనదిగా చెబుతూనే దంపతుల మధ్య పరస్పరం ప్రేమా, గౌరవం లేనప్పుడు విడిపోవడం తప్పుకాదని సూచిస్తుంది. కానీ దంపతులు తప్పని పరిస్థితుల్లో విడిపోవాల్సి వస్తే తమ రక్తం పంచుకు పుట్టిన బిడ్డల పెంపకం పట్ల అశ్రద్ధ తగదని, పిల్లల ఆలనా పాలనా ఏ వయసులో ఎవరు చూడాలో తెలిసి భార్యాభర్తలు బాధ్యతల్ని పంచుకోవాలని చెప్పకనే (ఇదంతా వ్యాసుడు, నన్నయ్యల ప్రసన్న కథాకథన పద్ధతిలో భాగం) చెబుతున్నది.అలాగే ఈ కథ "అశ్వమేధ, రాజాసూయాది యజ్ఞయాగాదులు చేసిన వాళ్ళే స్వర్గప్రవేశానికి అర్హులు.మహిళలు సభల్లో తాము ఆడవాళ్ళమన్న స్పృహ కలిగి జాగ్రత్తగా కూచోవాలి.

మనిషిగా మానవలోకంలో పుట్టడమే శాపం." లాంటి వివాదాస్పద సందేశాలను కూడా ఇస్తున్నది.అవి కవుల కాలాగుణమైన అవసరాలు కావచ్చు. సంపాదకుల ఉద్దేశాలు కావు. అయినా అవి ఇక్కడ అప్రధానాలు. ఏది ఏమైనా రేపో మాపో పెళ్ళి వాస్తవ జీవితంలోకి అడుగుపెట్టబోతున్న స్నాతకస్థాయి విద్యార్థులకు జీవితంలోని చేదు గుళికలను కూడా రుచి చూపిస్తూఅభ్యుదయ దృక్పథం తోటి లైంగిక జీవితాన్ని, వాస్తవ దాంపత్యజీవిత ధర్మాలను పరిచయం చేస్తున్న ఈ కథను పాఠ్యాంశంగా ఎన్నుకోవడం స్వాగతించదగ్గ పరిణామం.

మొదటి సెమిస్టరులోనేఉన్న దేశచరిత్రలు కవితలో మనం గొప్పలు చెప్పుకుంటున్న దేశచరిత్రల్లో నిజానికి ఎంత గొప్ప ఉందో మహాకవి శ్రీశ్రీ నిగ్గుతెల్చారు. నిజానికి ఏ దేశచరిత్రలోనూ గర్వించదగ్గ vishayam ఏమీ లేదని ఆయన తెల్చి చెప్పారు. శ్రీశ్రీ నరజాతిచరిత్ర అంతా పరపీడన పరాయణత్వంతో,పరస్పర ఆహరణోద్యోగంతో,రణరక్తప్రవాహల తోతడిసి పోయిందంటారు.ధనవంతులు దరిద్రులను కాల్చుకుతినడాల తోటి, బలవంతులు,దుర్బలులను, బానిసలుగా చేసుకోడాలతో నిండిపోయి,పిశాచగణాల సమవాకారంగా, బీభత్సరస ప్రధానంగా కనబడుతుందని అంటారు.

చరిత్ర అంతటా మరణించిన జనసందోహం, తత్పలి తంగా చల్లారిన సంసారాలు, అసహాయుల ఆహాకారాలు, మూలుగుతున్నాయంటారు. వైషమ్యం, స్వార్థపరత్వం, కౌటిల్యం, ఈర్ష్యలు, స్పర్ధలు, మాయలు లాంటి చెడు గుణాలు పెచ్చుపెరిగి చరిత్రగతిని మార్చివేశాయని వాపోయారు శ్రీశ్రీ.

చరిత్ర అంటే... రాజ్యాలు, యుద్ధాలు, తారీఖులు, దస్తావేజులు, రాణుల ప్రేమ పురాణాలు, ముట్టడ్యెకైన ఖర్చులు, కైఫీయతులు కాదని, నిజమైన చరిత్ర వెలుగులోకి రాకుండా పోయిందని అన్నారు. శ్రీశ్రీ చరిత్రకు సరికొత్త నిర్వచనం ఇచ్చారు. నిజమైన చరిత్ర అంటే చరిత్ర అట్టడుగున కనిపించ కుండా పడి ఉన్న కథలన్నీ కావాలని, అవి దాచేస్తే దాగని సత్యాలని చెప్పారు.

చరిత్ర అంటే... నెలునది నాగరికత గొప్పలు కాదు, అక్కడ సామాన్యుడి జీవనం ఎలా ఉండేదో కావాలి. తాజమహాల్ నిర్మించిందెవరు అన్నది కాదు, దాని నిర్మాణానికి రాళ్ళెత్తిన కూలీల వివరాలు కావాలి. రాజ్యాల దండయాత్రలు కాదు, వాటిలో సామాన్యులు చేసిన సాహసాలు కావాలి. ప్రభువు ఎక్కిన పల్లకి కాదు, దాని మోసిన బోయీలు ఎవరో తెలియాలి.

చరిత్ర అంటే... తక్షశిల, పాటలీపుత్రం, మధ్యధరా సముద్రతీరం, హరప్పా, మొహంజోదరో, క్రో-మాన్యన్ గుహ్ ముఖాల్లో మానవనాగరికత వికాసం ఎలా జరిగిందో తెలియాలి. ఏ దేశం ఏ కాలంలో ఏమి సాధించింది. అక్కడ ఏ శిల్పం, ఏ సాహిత్యం, ఏ శాస్త్రం, ఏ సంగీతం, ఎలా ప్రగతి సాధించిందో బయట పడాలి. ఈ మానవ ప్రయాణం ఏ స్వప్నం కోసం, ఏ విజయం కోసం అర్రులు చాస్తూ వచ్చిందో తెలియాలి. అదే నిజమైన చరిత్ర అని శ్రీశ్రీ అన్నారు. ఈ కవిత విద్యార్థులకు జీవితం పట్ల ఒక నూతన దృక్పథాన్ని అందిస్తుందనడంలో సందేహం లేదు. ఈ విధంగా విద్యార్థుల్లో చరిత్ర పట్ల ఇన్నాళ్ళూ ఉన్న అపోహను తొలగించి, నిజమైన చారిత్రక అధ్యయనం చెయ్యమని హితోపదేశం చేస్తున్న దేశచరిత్రలు కవితను పాఠ్యాంశంగా ఎన్నుకోవడం

అభినదనీయం. కేతు విశ్వనాథ రెడ్డి గారి **"నమ్ముకున్ననేల"** కథ రాయలసీమ కరువు బతుకులను కళ్ళకు కట్టి కరువు రైతుల బతుకుల పట్ల అవగాహనను, సానుభూతిని కలిగిస్తున్నది.

రెండవ సెమిస్టరులో గెడ్డాపు సత్యం గారి **"చెట్టు"** పద్య ఖండిక "మానవుడు చెట్టు లాగా సహనం, స్థైర్యం, పరోపకార గుణం కలిగి ఉండాలి" అని ఉద్బోదిస్తూ వుంది. ఇందులోనే చేమకూరి వేంకటకవి "విజయవిలాసము" కావ్యం నుండి గ్రహించిన **"సుభద్రాపరిణయం"**పాఠం తెలుగువారి సంస్కృతిని, సంప్రదాయాలను, వివాహాలను, వావివరుసలను, మానవసంబంధాలను విద్యార్థులకు నూరిపోస్తున్నది.

<u>ముగింపు</u>: స్నాతకవిద్యలోని వివిధ సెమిస్టరులలోని పాఠ్యాంశాల ఎంపికలో సంపాదకవర్గం వ్యక్తిత్వ పరమైనవి, సామాజికపరమైనవి అయిన ఎన్నో లాభాలను, ప్రయోజనాలను ఫలితాలుగా ఆశించి అందుకు అనుగుణమైన చక్కని పాఠ్యాంశాలను ఎన్నుకున్నది. వారి కృషి అభినందనీయం. వారి పరిశ్రమ ఫలించి ఆ పాఠ్యాంశాలు విద్యార్థుల్లో తగిన సంస్కారాన్ని తీసుకు వస్తాయని ఆశిద్దాం.

ఆధునిక మార్గదర్శకులు –గురజాడ,శ్రీశ్రీ

డా. G.B.ఆనంద్ కుమార్

తెలుగు శాఖాధ్యక్షులు

నోబుల్ కళాశాల, మచిలీ పట్నం

కృష్ణాజిల్లా, ఆంధ్ర ప్రదేశ్. –PIN:521001

I. కన్యక- గురజాడ అప్పారావు:

మొదటి సెమెస్టర్ లో విద్యార్థులు కన్యక పాఠ్యభాగాని చదువుకుంటారు. దీన్ని మహాకవి గురజాడఅప్పారావు రాశారు.ఈయన గొప్ప ఆధునిక ఉత్తమ సంస్కరణ భావాలు కల కవి.

పాఠ్య భాగ నేపథ్యం : అధికార మదంతో రాజు ఒక వైశ్య కన్యకను పట్ట పగలే చెరపట్టబోతే, ఆ రాజుకు ఒక గుణపాఠం నేర్పాలని, ఆ కన్యక అందరూ చూస్తుండగా నిండు అగ్నిగుండంలో దూకి ప్రాణ త్యాగం చేయడమే ఈ పాఠ్యభాగ నేపథ్యం.

కన్యక ఒక శెట్టి కూతురు. ప్రతి దినం పూవులు కోసుకుని తన చెలికత్తెలతో కలిసి దుర్గగుడికి పూజకు వెళ్ళేది.కన్యకను చూసిన ఆ రాజు కన్ను చెదిరి, ఆమెను తన దుష్ట మంత్రులతో కలిసి పట్ట పగలే పట్టుకోవాలనుకుంటాడు. అప్పుడు ఆమె రాజుతో "రాజా నన్ను ముట్టుకోవద్దు . భగవంతుని పూజించి వస్తాను.నువ్వు ఈ దేశానికి ప్రభువు. నేనొక శెట్టి కూతుర్ని. ఎక్కడికి పోతాను" అన్నది .శెట్టి తన బంధువులు అందరూ చూస్తుండగా రాజుకు నమస్కరిస్తూ "దేశాన్ని పాలించే రాజు నువ్వు. నన్ను బలవంతం చేయవలసిన పని ఏముంది ? ఈ కన్య నీ సొత్తు. శెట్టి కూతుర్ని నువ్వు కోరుటే మా జాతికి గొప్పతనం.అయితే మా కుల ధర్మం ఒకటుంది. అగ్ని సాక్షిగా నా కూతుర్ని వివాహమాడండి.మీకు కానుకలు సమర్పించుకుంటా"నంటాడు.

రాజు కోపపడి శెట్టితో"రాజకే ధర్మం గురించిచెప్తావా?రాజు తలచిందే ధర్మం.రాజు చెప్పిందే శాస్త్రం. నేడు రేపు అనే గడువుల్లోద్దు.నాతో స్నేహాన్ని కోరుకుంటే కన్యనివ్వు. లేదంటేవెళ్లిపో" అంటాడు. అట్లాగే "డేగ పిట్టను విడవదు. నేను నీ కూతుర్ని విడవను . నువు కానుకలు తెచ్చివ్వు. నేను ఇక్కడే వుంటాను కదలను" అంటాడు అందుకు శెట్టి "ముందు దేవ కార్యం తర్వాత రాచకార్యం మా కుల దైవం వీరభద్రుని పూజించి వస్తాను తర్వాత తమచిత్త"మంటాడు. రాజు " మంచిది వెళ్ళు . నీతో కూడా మేమూ వస్తాం .దేవాలయంలో అగ్ని సాక్షిగా కన్యకను చేపడతాము" అనంటాడు.రాజు తన దుష్ట పరివారంతో దుర్గా గుడిని చేరుకుంటారు.కన్యక కొలనులో స్నానమాచరించి ,మెడలో ఎర్రని పూలమాలల్ని ధరించి ,గుడిలో వున్న దేవతను భక్తి తో పూజించి , నగలను కానుకలను సమర్పించి,అగ్ని గుండం చుట్టూ నిలిచున్న తన జనులతో ఇలా అంటుంది.

కన్యక తన జనులతో చేసిన కర్తవ్య బోధ

అన్నలారా తండ్రులారా !నా మనవి వినండి మన కులంలో భార్య బిడ్డల్ని రక్షించుకొనే ఆశ లేదా?రాజ్యాన్ని పాలించేవాడు రాజు అయితే రాజును పరిపాలించే దేవుడుండడా?పరువు నిలుపుకోలేని పౌరుషమెందుకు ?చదువుకున్నవాడే బ్రాహ్మణుడు అని పరాక్రమమున్నవాడే క్షత్రియుడని పెద్దలంటారు ధన ,రాజ్య మదముతో అన్ని మర్చిపోయి ,విద్య నేర్చుకోకుండా రాజ్యాలను పాలిస్తే కష్టాలు కలుగుతాయి .మీరంతా బుద్ధి బలాన్ని ,బాహు బలాన్ని పెంచుకోండి.దేవుని మీద భారం వుంచి రాజులకే రాజులుగా జీవించండి.

కన్యక రాజుతో చెప్పిన మాటలు

పట్టపగలే నట్ట నడి వీధిలో తిరిగే విటునిలాగా,దొంగలాగా నన్ను పట్టాలనుకున్నావు నీవొక రాజ్యానికి ప్రభువువా?కండకావరముతో నువ్వు చేసిన ఈ దుర్మార్గపు పనిని దైవం చూస్తూ ఊరుకుంటాడా?కులం పెద్దలందరూ వచ్చారు , అగ్ని సాక్షిగా వివాహమాడటానికి అగ్ని సిద్ధంగా వుంది .నీకు నచ్చిన కన్యను నీ ముందే వున్నాను. ఇంకా ఆలస్యమెందుకు?నువ్వు రాజ్యాన్ని పాలించేరాజువైతే నన్నుపట్టుకో అంటూఅందరూ చూస్తుండగా కన్యక అగ్నిగుండంలోకి దూకింది.

పాఠ్యభాగంలో నీతి : రాజు మరణించాడు అతని గర్వం నశించింది. కోటపేటలు మట్టిలో కూలిపోయాయి.నక్కలకు నిలయాలుగా మారిపోయాయి.ఎక్కడ కన్యక తన మానాన్ని కాపాడుకోవడానికి అగ్నిలో దూకిందో అక్కడే ఒక మేడ లేచింది .కానీ కథ మాత్రం కీర్తిని అపకీర్తిని తెలియజేస్తూ పదాల రూపంలో పద్యాల రూపంలో ఇప్పటికీ నిలిచే వున్నాయి.

ఈ విషయాలన్నీ విద్యార్థి నేర్చుకుంటాడు.

II. శ్రీ శ్రీ దేశ చరిత్రలు:ఈ గేయం శ్రీ శ్రీ రాసిన 'మహా ప్రస్థానం' అనే గ్రంథం నుండి గ్రహింపబడింది .ఇది గతి తార్కిక భౌతిక వాదానికి నిలువుటద్దం. శ్రీ శ్రీ ఆధునిక యుగంలో అభ్యుదయోద్యమానికి సారథి. ఈ దేశ చరిత్రలు గేయంలో అభ్యుదయోద్యమానికి పునాది రాళ్లుగా వున్న భావాల సంపూర్ణ స్పందన ప్రతి పదంలోనూ విన బడుతుంది. గత చరిత్రను ఓ అక్రమ సంఘర్షనగా దర్శించి, భవిష్యత్ చరిత్ర గతికి ఉపయోగించే భావాన్ని అన్వేషించడమే అభ్యుదయ వాదుల లక్ష్యం.

దేశ చరిత్రలు లోని అంతర్యాన్ని శ్రీ శ్రీ కుండ బద్దలు కొట్టినట్లు ఇలా చెప్పాడు.

ఏ దేశచరిత్ర చూచినా/ ఏమున్నది గర్వకారణం?/ నరజాతి చరిత్ర సమస్తం/ పరపీడన పరాయణత్వం.

నర జాతి చరిత్ర అంతా ఒకరినొకరు పీక్కు తినడమని, యుద్ధ రక్త ప్రవాల్లో తడవడమని, బీభత్సరస ప్రధా నమని,దరిద్రులను కాల్చుకు తినడమని , పాలక వర్గం ఎప్పుడూ పాలిత వర్గాన్ని పీడుస్తుందనే సత్యాన్ని శ్రీ శ్రీ వెల్లడించారు. నరజాతి చరిత్ర సమస్తమూ భీభత్స రస ప్రధానంగా వుంది. గత చరిత్ర అంతా

పిశాచ గన సమవాకారంగా కనబడుతోంది. మనుష్య జాతుల చరిత్ర సమస్తమూ బలవంతులు బలహీనులను బానిసలుగా చేశారు. మనుష్యులను చంపిన నర హంతకులు రాజ్యపాలకులై చరిత్రలో పేరుకెక్కారు. బలవంతులు దుర్బల జాతిని/ బానిసలను కావించారు../నరహంతకులు ధరాధిపతులై/ చరిత్రమున ప్రసిద్ధి కెక్కిరి

పై పంక్తులలో బానిస యుగంలో బానిసల రెక్కల్ని విరగ్గొట్టిన విషయాన్ని , జమీందారీ యుగంలో భూస్వాములు రైతుల నోళ్ళు కొట్టి గద్దెలెక్కిన విషయాన్ని శ్రీ శ్రీ తెలిపారు. భూమండలంలో రణ రంగం కాని ప్రదేశం లేదనీ, గత చరిత్ర అంతా యోధుల రక్తం తోనూ ,లేదంటే వారి భార్యా బిడ్డల కన్నీళ్ళ తోనూ తడిసిందనే నగ్న సత్యాన్ని శ్రీశ్రీ వెల్లడించారు. యుద్ధాల వల్ల ఎన్నో సంసారాలు కూలిపోయాయని, ఎంతో మంది చనిపోయారని చరిత్రలో అనాధల హాహాకారాలు వినపడతాయని చెప్పాడు.

చరిత్ర అంతా వైషమ్యం , స్వార్థం , కుటిలత్వం , ఈర్ష్య, స్పర్ధలతో నిండి యుందన్నారు. శ్రీ శ్రీ మంచి చారిత్రక దృక్పథంతో చెంఘిజ్ ఖాన్,తామర్లేనూనాదిర్షా,ఘుఝ్ని,ఘూరీ,సికందర్ వంటి ప్రపంచ విజేతలందరూ మహా నర హంతకులని ఘోషించాడు.వైకింగులు,శ్వేతహూణులూ,సిధియన్లూ,పారశీకులూ,పిండారులూ, ధగ్గులు మొదలైన వారు చేసిన ఘన కార్యాలు కాలానికి కత్తుల వంతెన కట్టడమే అని శ్రీ శ్రీ ప్రకటించాడు.

అజ్ఞానం ఆకలి , ఆవేశం అనే వాటి ప్రేరణతో నియంతలు స్థాపించిన రాజ్యాలు మరో దుష్ట శక్తి లేవగానే పెకా మేడల్లా కుప్ప కూలిపోయాయన్నారు. "పరస్పరం సంఘర్షించినశక్తులలో చరిత్ర పుట్టెను" అనే మార్క్స్ సిద్ధాంత సారాన్ని శ్రీ శ్రీ ఒక్క మాటలో వెల్లడించారు.బలహీనులపై చిరకాలం జరిగిన మోసం,బలవంతుల దౌర్జన్యాలూ,ధనవంతుల పన్నాగాలూఒక వ్యక్తిని మరొక్క వ్యక్తి,ఒక జాతిని వేరొక జాతి,పీడించే సాంఘిక ధర్మంఇకపై సాగదని శ్రీ శ్రీ పెట్టు బడిదారీ వర్గాన్ని ప్రతిఘటించాడు.

ప్రపంచ శ్రామికులందరూ ఏకం కావాలని చెప్పిన మార్క్స్ ప్రభావంతో చీనాలో రిక్షావాలా, చెక్ దేశంలో గని కార్మికుడు ,ఐర్లండున ఓడ కళాసీ,హాటెన్ టాట్, జులూ, నీగ్రో,ఖండాంతర నానా జాతులుఇలా అణగారిన ఆర్తులందరూ,శ్రామికులందరూ ఒక్కగొంతుకతో పలుకుతారని , శ్రీశ్రీ విశ్వ శ్రామికుల చైతన్యాన్ని గూర్చి గానం చేశారు.

శ్రీ శ్రీ యుద్ధాలు ఎందుకు వచ్చాయో రాజ్యాలు ఎన్నాళ్ళున్నాయో చెప్పడం చరిత్ర కాదన్నారు. రానుల ప్రేమ కథలు , యుద్ధాల ఖర్చుల వివరాలూ , స్థలాలు , తారీఖులూ , కైఫియత్తులూ అనేవి చరిత్ర సారం కాదన్నారు. ఇతిహాసపు చీకటి కోణాల్లో దాగిన సత్య కథలు చరిత్రగా రాయాలని చెప్పారు .

నైలు నదీ నాగరికతలో సామాన్యుని జీవనం గూర్చీ , తాజ్ మహాల్ నిర్మించిన కూలీల గురించి , ప్రభువుల పల్లకీ మోసిన బోయల గురించి, సామాన్యుని సాహసం గురించి , చరిత్రలో రాయాలన్నారు. నిజమైన చరిత్ర అంటే నైలు నాగరికతలో సామాన్యుడు ఎలా జీవించాడో చెప్పాలి.నిజమైన చరిత్ర అంటే తాజ్

మహల్ నిర్మాణానికి రాళ్ళు ఎత్తింది ఎవరో తెలపాలి.నిజమైన చరిత్ర అంటే రాజులు చేసిన దండయాత్రలో సాహసం చేసిన వీరులను తెలియ చేయాలి. నిజమైన చరిత్ర అంటే రాజు ఎక్కిన పల్లకీ మోసిన బోయాల పేర్లను తెలపాలి అప్పుడది నిజమైన చరిత్ర అవుతుంది.

తక్షశిలా, పాటలీపుత్రం,మధ్యధరా సముద్రతీరం,హరప్పా, మొహంజదారో,క్రో-మాన్యాన్ గుహముఖాల్లో వర్ధిల్లిన మానవ వికాసంలో సామాన్యుని పాత్ర ఎంత ? ఏ కాలంలో ఏ దేశంలో సామానుడు ఎలా వున్నాడు? ఏ కళలు నేర్చుకున్నాడు ? ఏ విద్యలు నేర్చుకున్నాడు ? ఎంత వెలుగును సాధించాడు? ఇవన్నీ చెప్పగలిగితే అది దేశ చరిత్ర అవుతుంది . ముందు అవన్నీ తెలియాలన్నారు శ్రీ శ్రీ . ఏదేశం ఏకాలంలో ఏ శిల్ప సాహిత్య శాస్త్ర సంగీతాల్లో అభివృద్ధి సాధించిందో చెప్పడమే చరిత్ర అని శ్రీ శ్రీ తన అభ్యుదయ దృక్పథంతో దేశచరిత్రలు గేయం రాశారు.ఇవే విషయాల్ని   విద్యార్థి ఆలోచించి , వాస్తవం ఎంత మరుగు చేయబడిందో తెలుసుకుంటాడు.

శ్రీ శ్రీ ఈ   గేయంలో చరిత్రలో శ్రామికులకీ , సామాన్యులకు , అన్యాయం జరిగిందనీ అది సరిదిద్దడానికి ఆనాటి సామాన్య ప్రజల జీవిత కథలను వెలికి తీయాలని సూచించారు. వివిధ దేశాల్లో అణగారిన ఆర్తులంతా ఒక్కటై తమకు జరిగిన అన్యాయాన్ని ప్రబోధించాలని వెల్లడిస్తూ శ్రామిక జనజీవితాన్ని విభిన్నంగా చిత్రీకరించాడు.విద్యార్థుల్లో ఒక కొత్త చైతన్యాన్ని ప్రవహింపజేస్తాడు.

OUTCOME BASED EDUCATION IN MANAGEMENT

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Introduction

"Outcome-Based Education" (OBE) model is being adopted at a fast pace at Engineering colleges in India at the moment. It is considered as a giant leap forward to improve technical education in India and help Indian Engineers compete with their global counterparts. Now, how is OBE going to change Management education in India? Here are four things which you need to know about Outcome-based education (OBE) and why it is important for management education in India.

WHAT IS OUTCOMES-BASED EDUCATION?

OBE is an educational theory that bases each part of an educational system around goals (outcomes). By the end of the educational experience each student should have achieved the goal. There is no specified style of teaching or assessment in OBE; instead classes, opportunities, and assessments should all help students achieve the specified outcomes.

OBE concerns that the education system cannot adequately prepare students for life and work in the 21st Century have prompted across the country to explore new ways of designing education. In several states, educators and policy makers are attempting to change the way we measure the effectiveness of education from an emphasis on traditional inputs, such as course credits earned and hours spent in class, to result or outcomes. Outcome based education (OBE) is student-centred instruction model that focuses on measuring student performance through outcomes. Outcomes include knowledge, skills and attitudes. Its focus remains on evaluation of outcomes of the program by stating the knowledge, skill and behaviour a graduate is expected to attain upon completion of a program and after 4 – 5 years of graduation. In the OBE model, the required knowledge and skill sets for a particular engineering degree is predetermined and the students are evaluated for all the required parameters (Outcomes) during the course of the program.

CHED APPROVAL

 OBE Modelling program on Teacher Education (CHED Resolution, dated July 24, 2013). The curriculum meets the minimum requirement of CHED. The curriculum meets the requirement of PRC so students can take LET. The students can still complete the program in four years despite the increase in the number of subjects. The 3NS submits annual status report on modelling. Preparation of a manual on doing OBE in Teacher Education

According to W. Spady, OBE is clearly focusing and organizing everything in the educational system around the essential for all the students to do successfully at the

end of their learning experiences. It starts with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction and assessment to make sure that the learning happens. This definition clearly points to the desired results of education which is the learning outcomes. This made up of knowledge, understanding, skills and attitudes that students should acquire to make them reach their full potential and lead fulfilling lives as individuals in the community and at work. Spady premised that in outcome based education; All students can learn and succeed but not at the same time or in the same way, Successful learning promotes even more successful learning. Schools and teachers control the conditions that will determine if the students are successful in school learning.

Why institutions need to follow OBE?

The induction of India in the Washington Accord in 2014 with the permanent signatory status of The National Board of Accreditation (NBA) is considered a big leap forward for the higher-education system in India. It means that an Engineering graduate from India can be employed in any one of the other countries who have signed the accord (Know more about the Washington accord here). For Indian Engineering Institutions to get accredited by NBA according to the pacts of the accord, it is compulsory that engineering institutions follow the Outcome Based Education (OBE) model. So, for an Engineering Institution to be accredited by NBA it should compulsorily follow the OBE model.

Clarity

The focus on outcomes creates a clear expectation of what needs to be accomplished by the end of the course. Students will understand what is expected to them and teachers will know what they need to teach during the course. Clarity is important over years of schooling and when team teaching is involved. Each team member, or year in school, will have a clear understanding of what needs to be accomplished in each class, or at each level, allowing student to progress. Those designing and planning the curriculum are expected to work backwards once an outcome has been decided upon, they must determine what knowledge or skills will be required to reach the outcome.

Flexibility

With a clear sense of what needs to be accomplished, instructors will be able to structure their lessons around the student's needs. OBE does not specify a specific method of instruction, leaving instructors free to teach their students using any method. Instructors will also be able to recognize diversity among students by using various teaching and assessment techniques during their class. OBE is meant to be a student-centre learning model. Teachers are meant to guide and help the students understand the material in any way necessarystudy guides and group work are some of the methods instructor can use to facilitate students learning.

Comparison

OBE provides an opportunity for comparison across institution. On an individual level, institution can look at what outcomes a student has achieved to decide what level the student would be at within a new institution. On an institutional level, institutions can compare themselves, by checking to see what outcomes they have in common, and find places where they may need improvement, based on the achievement of outcomes at other institutions. The ability to compare easily across institutions allows students to move between institutions with relative ease. The institutions can compare outcomes to determine what credits to award the student. The clearly articulated outcomes should allow institutions to assess the student's achievements rapidly, leading to increased movement of students. These outcomes also work for school to work transitions. A potential employer can look at records of potential employee to determine what outcomes they have achieved. They can then determine if the potential employee has the skills necessary for the job.

Involvement

Student involvement in the classroom is a key party of OBE, students are expected to do their own learning, so that they gain a full understanding of the material. Increased student involvement allows student to feel responsible for their own learning, and they should learn more through this individual learning. Another aspect of involvement is parental, and community involvement, while developing curriculum, or making changes to it. OBE outcomes are meant to be decided upon within a school system, or at local level. Parents and community members are asked to give input in order to uphold the standards of education within a community, and to ensure that students will be prepared for life after school.

WHY OUTCOMES-BASED EDUCATION IS IMPORTANT FOR MANAGEMNET STUDENTS?

Fast technological developments leads to frequent changes in the nature and requirements of job

Thus emphasis on building learner competencies—including learning how to learn

It can be coupled with a robust system of continuous quality improvement (CQI) system.

Why OBE - Exam Result is Not the Most Important Consideration by Employer

• Communication (verbal & written)	4.69
• Honesty/Integrity	4.59
• Teamwork skills	4.54
• Interpersonal skills	4.50
• Strong work ethics	4.46
• Motivation & initiative	4.42

• Flexibility/adaptability	4.41
• Analytical skills	4.36
• Computer skills	4.21
• Organisational skills	4.05
• Detail oriented	4.00
• Leadership skills	3.97
• Self confidence	3.95
• Friendly/outgoing personality	3.85
• Well mannered / polite	3.82
• Tactfulness	3.75
• GPA (3.0 or better)	3.68
• Creativity	3.59
• Sense of humour	3.25
• Entrepreneurial skills/risk taker	3.23

How is it measured?

The OBE model measures the progress of the graduate in three parameters, which are:

- Program Educational Objectives (PEO)

- Program Outcomes (PO)

- Course Outcomes (CO)

1. PROGRAM OUTCOMES are the sets of competencies (related knowledge, skills, and attitudes) that all learners are expected to demonstrate. Institutional or program outcomes may also emphasize lifelong learning. For instance, HEIs could describe the attributes of their ideal graduates which they expect to see five years after graduation. These desired outcomes have to be translated to what the students learn in specific courses. The HEIs should ensure that at the level of the courses, the desired course and learning outcomes are attained with the proper content, methodologies, and student performance assessment

2. COURSE OUTCOMES refers to the knowledge, values, and skills all learners are expected to demonstrate at the end of the course.

3. LEARNING OUTCOMES may result from the specific lesson, although it is sometimes used interchangeably with course outcomes. Thus, in the hierarchy, learning outcomes are seen as building blocks toward course outcomes, which in turn, support the program outcomes.

Assessments: It is also important to note that assessment plays a very important role in OBE. Assessment drives OBE, and conventional methods are usually not sufficient to assess the achievement of desired outcomes. In the initial report of the Task Force on Quality Assurance (TFQA) in October 2011, the core mission of

teaching HEIs is to build the learning competencies of students and their ability to continuously learn as well as to mobilize resources and methods, including traditional pedagogies (e.g., lectures), that would enhance learning. If the spirit of this mission is imbibed, HEIs and CHED will find easier to discern, in the specific contexts they are operating in, which element of the instruction paradigm they have to change and which they can work with and bend to produce positivelearning outcomes.

Methods of assessment

The method of assessment of the candidates during the program is left for the institution to decide. The various assessment tools for measuring Course Outcomes include Mid-Semester and End Semester Examinations, Tutorials, Assignments, Project work, Labs, Presentations, Employer/Alumni Feedback etc, These course outcomes are mapped to Graduate attributes and Program outcomes based on relevance. This evaluation pattern helps Institutions to measure the Program Outcome. The Program Educational Objective is measure through Employer satisfaction survey (Yearly), Alumni survey (Yearly), Placement records and higher education records.The adoption of OBE at engineering institutions is considered to be a great step forward for higher education in India but the actual success lies in the effective adoption and stringent accreditation process to ensure the quality of education is maintained.

Reasons for implementing Outcome-Based Education

Traditional education systems are losing their significance in the age of globalization. All things change very quickly and continually in today's globe. More skills are needed to develop technology very rapidly. In order to deal with technological developments, academic organizations should generate graduates. Therefore, it is compulsory to move from traditional education to results-based education to overcome the necessity. But a huge question? arise how this learner-centric approach (OBE) will be beneficial and here is how this system will be beneficial.

Transparency

Focusing on results Outcome-based education(OBE) generates a transparent expectation of the top results. Students can understand what they expect, and teachers can understand what they need to demonstrate throughout the course. Clarity is very crucial as it is necessary to be clear in each category or in all levels, so that learners are able to advance, and also to describe all the data and abilities necessary to accomplish this outcome. Clarity will be very crucial.

Pliability:-

Teachers can structure their classes according to the student's wishes by reading transparently what needs to be done. Therefore, OBE specifies no particular instructional methodology, teachers are free to teach any methodology of victimization. They will even be able to acknowledge diversity among students by

victimization numerous teaching and assessment techniques in OBE since it's a student-centred learning model. Instructors will facilitate students to grasp the concepts in any manner (study guides, and cluster work, seminar) that facilitate students learning.

Analysis

In OBE Instructors will analyse the results a student has accomplished and in which area they are upgraded to analyse the talent and provide individual assistance and steering to meet their demands. This helps teachers and institution. They also help teachers to monitor the development and enhancement of the student over a certain quantity and to help them achieve their results.

Participation

Student participation in an institution is also an important component of OBE. Student's measure squarely should attempt to learn to themselves, so that the fabric is fully understood. Inflated student involvement permits students to feel to blame for their own learning, and that they will learn a lot through this individual learning.

Roles of Lecturers

  - ➢ Review PEOs, POs, course structures and syllabi.
  - ➢ Teach the relevant engineering, maths, and other relevant subjects.
  - ➢ Conduct relevant tutorials and laboratory practical sessions.
  - ➢ Give appropriate guide on assignments and projects.
  - ➢ Conduct empirical measurements of POs.
  - ➢ Prepare the required documentation.
  - ➢ Assure EAC and public on the standard of our graduates.
  - ➢ Obtain and maintain accreditation from EAC through Continuous Quality Improvement (CQI).

Roles of Students

  - ➢ Know the required Programme Outcomes and Programme Objectives (available at the FOE website).
  - ➢ For each course, review the Learning Outcomes (available at the FOE website/uploaded in MMLS) at the beginning of each trimester. This gives you an idea of the knowledge and skills expected from a particular course.
  - ➢ Be more proactive in the learning process to acquire the Learning Outcomes of subjects.
  - ➢ Demonstrate through the assessment methods that the required skills and knowledge have been acquired.
  - ➢ Attain the Programme Outcomes and Programme Objectives as a whole during the entire programme.
  - ➢ Give constructive feedbacks on the programme/course/academic staff to obtain accreditation through active participation in Online Teaching Evaluation, Academic Advisory System, **dialogue** sessions with Dean, etc.

Competencies for all future teachers in the teacher education curriculum •

It is desired, that all graduates of any teacher education program should have the following competencies to be ready to teach in the classroom. Here are the suggestions based on CMO30 S. 2004 and the NCBTS.

1. Demonstrate basic and higher and higher levels of literacy for teaching and learning
2. Demonstrate deep and principled understanding of the teaching and learning process
3. Master and apply subject matter content and pedagogical principles appropriate for teaching and learning
4. Apply a wide range of teaching related skills in curriculum development, instructional material production, learning assessment and teaching delivery •
5. Articulate and apply clear understanding of how educational processes relate to political, historical, social, cultural context
6. Facilitate learning in various classroom setting diverse learners coming from different cultural backgrounds
7. Experience direct field and clinical activities in the teaching milieu as an observer, teachingassistant or practice teacher
8. create and innovate alternative teaching approaches to improve student learning
9. Practice professional and ethical standards for teachers anchored for both local and global perspectives
10. Pursuecontinuously lifelong learning for personal and professional growth as teachers.

CONCLUSION:

In this dynamic world we should change according to the trend and requirements. As per the requirement of various Multinational Companies the students should posses not only education but also Skills which are useful for their job. Educational institutions should follow and implement the latest methodologies in teaching .

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Outcome Based Education - An Overview

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Abstract: The need for outcome based education has been there for decades. Outcome based education is a practical approach to develop the curriculum with inclusion of learning practices and focus on the students rather than teacher. Outcome-based education has many intrinsic benefits which must make it an attractive model for educationalist involved in curriculum planning, curriculum developers, teachers, employers, students. The paper attempts to describe the concept of outcome based education and also highlights the relationship of OBE and student centric learning which is imperative to achieve the desired outcome. The aim of the present study is to mention and highlight the contribution of various authors is the area of OBE and propose a theoretical model for OBE.

Keywords: Outcome Based Education, Student Centric Learning, Learning Outcome

Introduction

Outcome based education has gained popularity due to the changing need of education system where greater emphasis is being laid on learning achieved by the students and not mere degree. The concept of OBE emphasizes on a curriculum which have pre-defined set of learning outcomes. The curriculum should make it clear that what kind of skill set the students will possess after graduating from an institution. Outcome based education is a well-established concept in the west.

Outcome-based education (OBE) is a model of education that rejects the traditional focus on what the school provides to students, in favour of making students demonstrate that they "know and are able to do" whatever the required outcomes are. Outcome-based education (OBE) is a recurring education reform model. It frames itself as a student-centered learning philosophy that focuses on empirically measuring student performance, which are called *outcomes*. OBE contrasts with traditional education, which primarily focuses on the resources that are available to the student, which are called *inputs*.

Outcome based education (OBE) is student-centered instruction model that focuses on measuring student performance through outcomes. Outcomes include knowledge, skills and attitudes. Its focus remains on evaluation of outcomes of the program by stating the knowledge, skill and behavior a graduate is expected to attain upon completion of a program and after 4 – 5 years of graduation.

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In Outcome-based education is an educational theory that bases each part of an educational system around goals (outcomes). By the end of the educational experience, each student should have achieved the goal. There is no single specified style of teaching or assessment in OBE; instead, classes, opportunities, and assessments should all help students achieve the specified outcomes. The role of the faculty adapts into instructor, trainer, facilitator, and/or mentor based on the outcomes targeted

Defining Outcome Based Education

Outcome-based education, as defined by Spady (1988) is a way of designing, developing, delivering and documenting instruction in terms of its intended goals and outcomes.

Further Spady (1994) had defined OBE as "Outcome-Based Education means clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences."

As contrast to the input based education were the focus was on input processes and happily excepting the outcome whatever it was. The purpose of outcome based education is twofold, firstly designing the developing clear learning outcomes around which entire academic system can be woven and secondly establishing situations and occasions that encourage the students to achieve the pre-determined learning outcomes.

As proposed by Harden et. al. (1999) that there is a need that learning outcome of a program should clearly define what sort of students will a program produce? What competencies and skill sets they will possess? Zitterkopf (1994) is his study prompted that the variance between being outcome- based and simply producing outcomes is substantial. Outcome based Education is easy to define but difficult to implement the overall philosophy of this education lies in the curriculum that is driven by the outcome and learning that the student will exhibit after the completion of the course.

Harden et. al. (1999). The curriculum based on Outcome Based Education has to align with the pre-set learning outcomes of the course, methods of teaching, student centric learning, pedagogical interventions and evaluation parameter to result in a robust and meaningful exercise. This should enable the students to demonstrate the requisite skills and knowledge of what was delivered during the course.

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As mentioned by Spady (1994) that outcome is not knowing but doing therefore it is important that a lot more emphasis should be given to the action oriented verbs while defining learning outcome in a given curriculum/course.

Origin of the outcome based education (OBE)

OBE has been adopted for more than a century when educators brought to light the importance of appreciating students' individual variation in the learning process, believing that education is best measured by encouraging individual students' achievement that could occur at different rates for different students. OBE allows the students of different abilities to learn at their own rates with an emphasis on programmatic outcome in professional medical knowledge, skills and attitudes.

The concept of OBE was also encouraged by the reform in the health care system that stresses on establishing a common set of standards for doctors with highlighting the fact that professionalism should be an essential competency achieved by the medical student before graduating. With the increasingly global marketplace for higher education , OBE has been adopted by many medical schools with a great interest to ensure that the degrees granted to their students are competitive and accredited internationally and their graduate are competent practicing physicians.

Nature of the outcome based education (OBE)

Outcome-based education approaches the curriculum decision making based on the competencies students should demonstrate at the end of their educational program, thus the outcomes or competencies dictate the curriculum content and organization, the teaching methods and strategies, the course offered, the educational environment and the assessment strategies. All curriculum and teaching decisions are made based on how best to facilitate the desired final outcome.

Steps for planning and implementing outcome based curriculum:
  ➢ Deciding on the outcomes: the educational outcomes are clearly identified and unambiguously specified regarding the content, context and competence.
  ➢ Demonstrating outcomes: the expected outcome should be defined by setting 'benchmarks' for each level of the program. Each benchmark is a skill that must be demonstrated by the student. Benchmarks should tackle and define specifically the goals of the curriculum and verify ways to assess whether students have reached these goals at that level of study.
  ➢ Deciding on contents and teaching strategies OBE can be implemented as a 'Whole-class' models which aim to bring all learners in a classroom up to high levels of learning before proceeding further or by the 'Flexible' models which use

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flexible grouping, continuous progress, technological approaches and instructional management.

Basic Principles of Learning OBE

Spady (1994) gave four basic principles of Learning OBE

➢ Clarity of Focus - which is the teachers should focus on helping students to develop the knowledge and skills that will enable them to achieve the articulated intended outcomes.

➢ Designing down - teachers should design an instruction if their outcome is already clear.

➢ High Expectations - teachers should establish high, challenging standards of performance in order to encourage students to engage deeply in what they are learning.

➢ Expanded Opportunities - teachers must strive to provide expanded opportunities for all students.

This learning principles serves as the learning outcome of OBE, these definitions of "outcomes" imply that the knowledge that you learn about principles of teaching do not qualify as outcomes, the outcome is what you can actually do with what you have learned about principles of teaching. Your demonstration teaching or microteaching where you apply the principles of teaching that you learned will be the outcome.

Advantages of OBE

➢ The adoption of OBE is perceived as a valuable addition to the educational process believing that with its clear specified outcomes it encourages participation and collaboration from multiple disciplines and interest groups in planning and implementing the curricula which will foster learning in various areas of medical practice.

➢ Educators believe that OBE does not only guaranty the clarity and assures the absence of controversy in curricula planning but also its relevance to the students' future practice.

➢ The clear, straightforward outcomes provided by OBE form a framework for decision – making and guidelines for assessment and program evaluation.

➢ The educators who support OBE in medical education believe that the presence of specific, unambiguous outcomes, enables OBE to promote more self-directed learning and allow students to have a meta-cognitive understanding of the educational program and their role in that process.

➢ It also encourages active discussion of those goals and the values they embrace.

Disadvantages of OBE

➢ The shift to OBE has attracted lots of opposition.

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➢ Opponents believed that, education should be an open ended and should not be constrained by outcomes and that education should be valued for its own sake, not because it leads to some outcome.

➢ They believe that defining education as a set of outcomes - decided in advance of teaching and learning - conflicts with the wonderful, unpredictable voyages of exploration that characterize learning through discovery and inquiry.

➢ They mistakenly assume that teaching will be inappropriately limited by this model. Moreover they are arguing and emphasizing on what they believe; that the inclusion and emphasis on attitudes and values in stated outcomes.

➢ They also claim that the OBE approach does not permit special, lower standards for students who have been badly served by public education in the past.

➢ Regarding the outcomes, many opponents dislike them because they think the outcomes' standards maybe too easy, too hard, or wrongly conceived.

➢ In addition, some critics object to additional resources being spent on the struggling students. Furthermore, some teachers find their grading workload significantly increases in OBE curriculum.

Criticism

Criticism of OBE falls into a few major groups:

➢ Opposition to standardized testing
➢ Criticism of inappropriate outcomes
➢ Lack of evidence that OBE works
➢ Extra burden on instructors and educational institutions
➢ Dislike of something that is not OBE

Student Centric Learning

Student-centered learning has always been a long-standing topic of discussion among educators in higher education. A foundation study conducted by Tyler (1949) highlighted the important of curriculum design and the focus on students learning, the study 69 years back laid emphasis on student centric learning.

In a study conducted by Barr and Tagg (1995) described „„learning paradigm"" as one in which the goal is for our institutions to operate like learners, continuously learning how to produce more learning. Cannon and Newble (2000) define student-centred learning (SCL) as: ways of thinking and learning that emphasize student responsibility and activity in learning rather than what the teachers are doing. Essentially SCL has student accountability and activity at its heart, in contrast to a robust importance on teacher regulated and coverage of academic content in much

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conventional, moralistic teaching. With a student-centred approach more is needed from students than learning course content in order to pass an exam.

If 'learning for the exam' is the kind of learning that got them into university, then student-centred learning strategies can threaten students' sense of proficiency or security if they are not sure exactly what learning is required and why. Ingleton et. al. (2000). Student-centred learning represents the following views: dependence upon active rather than passive learning, stress on deep learning and understanding, increased accountability and responsibility on the part of the student, an increased sense of independence in the learner, an interdependence between teacher and learner as divergent to complete learner dependence or independence (Fay, 1988).

Wright (2011) in her book explains the **various dynamics of SCL:**
➢ the balance of power in the classroom,
➢ the function of the course content,
➢ the role of the teacher versus the role of the student,
➢ the responsibility of learning,
➢ the purpose and processes of evaluation.

OBE and student learning are interlinked as any Outcome Based system would demand a student to act as a learner and not a mere observer, the student participation in an OBE setting is imperative for its implementation.

Conclusion

OBE is an educational approach considered in planning, implementing and evaluation of curricula rather than an event occurring in the curricula. It promises high level of learning for all students based on the achievement of clearly unambiguous outcomes with consideration to the appropriateness of each learner's development level and assuring active and experienced-based learning. It provides the learner with the destination of the educational journey before voyaging. The study concludes that available literature on OBE is more focused towards under-graduate courses, therefore more work needs to be done. There is a strong need to move from teacher centric education to student centric education. The OBE framework should focus on competency building and skill orientation rather than only theoretical knowledge. Proposed model can be empirically tested to establish a sound framework for successful implementation of outcome based education.

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తెలుగు వారి సంస్కృతీ సాంప్రదాయాలు - సుభద్రా పరిణయం

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చేమకూర వెంకటకవి విజయ విలాసం, సారంగధర చరిత్రం అనే గ్రంథాలు రాశారు. సుభద్రా పరిణయం అనేపాఠ్యభాగం 'విజయ విలాసం' అనే ప్రబంధం నుండి గ్రహింపబడింది.వెంకట కవికి తెలుగు మాటలకున్న విలువ బాగా తెలుసు సన్నివేశానికి తగిన పదం అర్థ గౌరవంలో వాడటంలో బహు నేర్పరి. మాటల విరుపు ద్వారా అందాన్ని అద్దడం,బొచిత్యాన్ని పోషించడం ఈయనకు మాత్రమే తెలిసిన కవితా రహస్యాలు.

అర్జునుడు యతివేశంలో ద్వారకా నగరానికి వెళతాడు. బలరాముడు ఈ యతివేషంలో వున్న అర్జునునికిసపర్యలు చేయడానికి సుభద్రను నియమిస్తాడు.యతి తానే అర్జునుడినని సుభద్రకు చెప్పి, ఆమెపై తనకున్న ప్రేమను ఆమెతో వ్యక్తం చేస్తాడు.కానీ సుభద్రను అర్జునునికివ్వడానికి బలరామునికిష్టం వుండదు. అదే సమయంలో శ్రీ కృష్ణుడు, వివాహ సమయానికి శివుని ఉత్సవాన్ని చూడటానికి బలరాముడు వెళ్ళే విధంగా ఏర్పాట్లు చేయిస్తాడు. ద్వారకా నగరంలో పెళ్లి పనులు ప్రారంభమవుతాయి.

<u>శుభలేఖలు /సూర్యాస్తమయం</u>: దేవేంద్రుడు "నా కుమారుడైన అర్జునుని వివాహం కోసం భూలోకం వెళ్ళాలి. అందరినీ తీసుకొని బయలుదేరు" అని సముద్రుణ్ణి ఆజ్ఞాపిస్తూ పంపిన బంగారు శుభలేఖల సమూహం లాగా సూర్యుడు పడమటి కొండలలో అస్తమించాడు.

<u>మంగళసూత్రం/చంద్రోదయం</u>: సుభద్ర మెడలో అర్జునుడు కట్టడానికి తెచ్చిన తాళి లాగా తూర్పు దిక్కున చంద్రుడు ఉదయించాడు. అంటే చంద్రోదయం తాళివలే మెరుస్తోందని అర్థం.

<u>పెళ్లి పందిరి</u>: రత్నాలు పొదిగిన పెండ్లి మంటపానికి దగ్గరగా కులదేవతని నిలబెట్టారు. ముత్తైదువలు పాటలుపాడుతూ అరివేణి కుండలని తీసుకొచ్చారు. బంగారు పళ్ళాలలో ముత్యాల తలంబ్రాలను నింపారు. పెళ్లివాయిద్యాలు మోగుతుండగా చెలికత్తెలు పెళ్లి పనుల్లో హడావుడిగా వుంటే అంతఃపురమంతా ఒక ఉత్సవంలాగా వుంటుంది.

<u>కృష్ణునికోసం సుభద్ర ఎదురుచూపు:</u> తన అన్న యైన శ్రీకృష్ణుడు ఇంకా రాలేదని సుభద్ర తన మనసులో అనుకొంటూ వుండగానే శ్రీకృష్ణుడు అక్కడికి వస్తాడు. ఇంతలో వసుదేవుడు, సారనుడు, సాత్యకి, ప్రద్యుమ్నుడు, సాంబుడుఒకరికి తెలియకుండా ఒకరు, ఒకరి వెనకఒకరు అందరూ పెళ్ళి మంటపం దగ్గరకు వస్తారు.

<u>ఇంద్రుని పరివారం రాక:</u> అర్జునుడు కూడా తన తండ్రియైన దేవేంద్రుడు ఇంకా రాలేదేమిటా అని ఎదురు చూస్తుండగా ఇంద్రుడు, అప్సరసలు, ఋషులు, అరుంధతి, బృహస్పతి,శచీదేవిని మొదలైన వారినందరినీ తీసుకొని అక్కడికొస్తాడు.

<u>ముహూర్తం:</u> బృహస్పతి "ముహూర్తం సమీపించింది అందరూ సిద్ధంగా ఉండండి" అని తెలుపగా, దేవేంద్రుడు తాను తెచ్చిన బంగారం ,పట్టు వస్త్రాలు కిరీటం మణిభూషణాలతో బాసి కాన్ని అలంకరించి, మెడలో పారిజాత హారాన్ని వేసి, ఐరావతంపై ఎక్కించారు.

<u>అర్జునుని ఊరేగింపు:</u> అర్జునుడు ఐరావతంపై కూచుని ఊరేగుతూ దేవకీ ఇంటి నుండి ,పెండ్లి కూతురున్న రుక్మిణీ దేవి ఇంటి ముంగిటకి వెళ్ళి, సాత్యకి తన చ్యి అందించగా , బ్రాహ్మణ ముత్తెదువలు అక్షతలు చల్లుతూ వుండగా అర్జునుడు తన ఐరావతాన్ని దిగుతాడు. అర్జునుడు శుభసూచకమైన తన కుడి పాదాన్ని ముందుగా వేసి గడపను దాటి హారతులు ఇస్తూ వుండగా దీవెనలు అధికం కాగా సంతోషంతో పెండ్లి వేదిక దగ్గరకు వస్తాడు.

<u>సుభద్ర రాక:</u> అర్జునుడు ముందుగా పెళ్ళి పందిరికి చేరుకొంటాడు . అప్పుడు గర్గ మహార్షి వేద మంత్రాలను చదువుతూ వుండగా,దేవగురువైన బృహస్పతి ఎదురుగా వస్తుంటే, ముత్తెదువలు పెళ్ళిపాటలు పాడుతూసుభద్రను తీసుకొస్తారు.

<u>తిలోత్తమ అందం:</u> ఆ సమయంలో అప్సరసలందరూ తమలో తాము మనమెప్పుడూ తిలోత్తమ చక్కదనాన్ని గురించి పొగడుతుంటాం. సుభద్ర సౌందర్యం ముందు ఆ తిలోత్తమ చక్కదనం తక్కువైపోయింద"ని గుసగుసలుగా చెప్పుకుంటారు.

<u>పది వేల కళ్ళు :</u>ఈ భార్యా భర్తల అందాన్ని తృప్తిగా చూడాలంటే వెయ్యి కళ్ళు కావాలని కవులు పొగడుతూ వుంటే, వేయి కళ్లున్న ఇంద్రుడు "కాదు కాదు పది వేల కళ్ళు కావాల"ని కోరుతాడు.

<u>కన్యాదానం:</u> శ్రీకృష్ణుని మాటకు అవునని, కాదనీ అడ్డము చెప్పేవారెవరూ లేరు. అయినప్పటికీ తనకేమీ తెలియదన్నట్లుగా వుండి కన్యకలలో శ్రేష్ఠురాలైన సుభద్రను అర్జునునికి కన్యాదానం చేయాడానికని వసు

దేవుణ్ణి నియమించి, ఇంద్రునికి దగ్గరగా కూర్చుని చూస్తుంటాడు. ఎంతటి మాయగాడో కదా. అన్నీ చేసేసి ఏమి తెలియనట్లుంటాడు.

<u>తెర ఏర్పాటు ,మధుపర్కము:</u> కొంత మంది స్త్రీలు తియ్యగా మాట్లాడుతూ, వధూ వరుల మధ్య తెరని ఏర్పాటు చేస్తారు. వసుదేవుడు అర్జునునకు మధుపర్కాలను (తేనె పాలు పెరుగు పంచదార నెయ్యి కలసిన ద్రవ్యం) సమర్పించాడు.

<u>కాళ్ళుకడిగి కన్యాదానం:</u> వసుదేవుడు చంద్ర కాంత మణుల గిన్నెతో పన్నిటిని తెచ్చి, దేవకీ దేవి బంగారు పళ్ళెం అందివ్వగా,ఆ బంగారుపళ్ళెంలో తన మేనల్లుడైన అర్జునుని కాళ్ళుకడిగి తన కుమార్తెయైన సుభద్రను కన్యాదానం చేశారు.

<u>తలంబ్రాల బుట్టలు:</u> శ్రీకృష్ణుని ఎనిమిది మంది భార్యలు పక్కనే నిలిచి చూస్తున్నారు.దేవతలు కూడా సంతోషంగా చూస్తుంటారు. మంగళ వాయిద్యాలు ఎక్కువగా ధ్వనిస్తుంటాయి. అప్పుడే కొంతమంది ముత్తెదువులు సంతోషంతో ఉప్పొంగుతూ, మేలిమి బంగారంతో చేసిన ఎత్తైన తలంబ్రాలబుట్టలను వధూవరుల దగ్గరికి చేర్చారు.

<u>తెర తొలగింపు :</u> కొందరు స్త్రీలు వధూవరుల మధ్యనున్న తెరను తొలగించగా అందరూ అశ్చర్యపోయే విధంగా సుభద్ర నవ్వుతూ వున్న ముఖం శరత్కాల మేఘాన్ని తొలగించుకుని ప్రకాశిస్తున్న చంద్ర బింబం లాగా కనిపించింది.

<u>సుభద్ర ముఖారవిందం :</u> తియ్యని అమృతం చిలికే పెదవులతోనూ , కలువ పువ్వులనూ చకోర పక్షులనూ సంతోషపెట్టే చూపులతోనూ, పద్మాల కాంతుల పట్ల గల నిరాదరణతో కూడిన సుభద్ర ముఖాన్ని చంద్రుడే అని విశదంగా చెప్పాలా?

<u>మంగళసూత్రాన్ని కట్టడం:</u> ప్రణయ కోపంతో వున్నపుడు బతిమాలుకునే నేర్పుని వెల్లడించే విధంగా సిగ్గుతో వున్న సుభద్ర ముఖాన్ని కొంచెం పైకెత్తి, మెడ కిందుగా రెండు చేతులను పొనిచ్చి, జడను తప్పించి,ఆమెకు సుఖం కలిగేటట్లు అర్జునుడు ఆమె మెడలోమంగళసూత్రాన్ని గట్టిగా కట్టాడు.

<u>తలంబ్రాలు:</u> సుభద్రార్జునుల పక్కనే వారి వారి అనుకూలురు కొందరు చేరి ముత్యాల పళ్ళేలను వారి దగ్గరుంచి"నీదే పైచేయి కావాల"ని ప్రోత్సహిస్తుంటే, సుభద్రపై అర్జునుడు అర్జునునిపై సుభద్ర తమలో చిరునవ్వు,సిగ్గులు ఒలకబోసుకుంటూ తలంబ్రాలు పోసుకున్నారు.

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<u>అక్షతలు:</u> అగ్ని సాక్షిగా సుభద్రార్జునులిద్దరూ పీఠపై కూర్చుని ఉండగా, ప్రజలంతా అక్షతలు వేసి ఆశీర్వదించారు. ఈ లోకంలో పెళ్ళంటే ఎవరికైనా కొత్త కళ వస్తుంది. అలాంటిది లేత వయస్సు అందం రీవి గల రాకుమారికి, రాకుమారునికి శృంగార విలాసం కలగకుండా వుంటుందా? చూసే వారికంతా కన్నుల పండుగగా వుంటుంది.

<u>పెద్దలకు నమస్కారం:</u> అర్జునుడు తన తల్లిదండ్రులైన శచీదేవికి దేవేంద్రునికి నమస్కారం చేశాడు. పక్కనే వున్న సుభద్ర మొక్కడానికి సిగ్గు పడుతూ వుండగా "అత్తమామలను భక్తితో ఇంటి దేవతలుగా తలంచే స్త్రీని సాధ్వి అంటారు అది మీ విషయంలో నిజమయ్యింద" ని దేవకీ దేవి, ఇంద్రునికి శచీదేవికి ఆనందం కలిగేటట్లు మాట్లాడి, సుభద్ర చేత నమస్కారం చేయిస్తుంది.

<u>వియ్యంకుల సరస సంభాషణ :</u> దేవేంద్రుడు శ్రీకృష్ణుని చూసి "అన్ని మంచి లక్షణాలున్న సుభద్రను యోగ్యుడైన వరునికిచ్చి వివాహం చేయగల సామర్థ్యం నైపుణ్యం మీకే వుంద"ని అనగా అందుకు కృష్ణుడు "మా మేలు కోరే మీరు రావడం వల్లనే ఈ వివాహం వైభవంగా జరిగింద"ని బదులిస్తాడు.

<u>పెళ్ళి భోజనం :</u>వియాల వారి మర్యాదలతో కృష్ణుడు దేవేంద్రుడు కలసి భోజనం చేస్తారు. కృష్ణుడు కుంకుమ పువ్వును, కస్తూరిని,పచ్చ కర్పూరపు వస్త్రాలను ఇంద్రుని చేతికిచ్చి మర్యాదగా సాగనంపుతారు.అక్కడ అంతఃపురంలో శచీదేవిని సాగనంపడానికి రుక్మిణీ దేవిని నియమిస్తాడు.అప్పుడు శచీదేవి దేవకీని 'వదినగారూ'అంటూ తన వరసను తెలియ చేస్తుంది.

<u>వీయపురాలు :</u>శచీదేవీ"పద్మము వంటి కన్నులు కల కృష్ణుని కనిన ఓ దేవకీ దేవీ !మొదటి సంబంధమున నాకు అత్తగా వుంటివి ఈ పెండ్లి వల్ల వియ్యపురాలివి అయినావు కదా!ప్రేమతో నీ కుమార్తెను పెళ్ళి చేసుకోవడం అర్జునునకు న్యాయమే. అత్తవరుస కలిగిన కన్యకను పెళ్ళి చేసుకోవడం వల్ల ఎక్కువ ఆయుష్షు కలవాడవుతాడని అంటారు. ఈ చుట్టరికము వల్ల ఎంతైనా మేలు కలుగుతుంది"అని సరసంగా పలకరించగా, దేవకీదేవి కొన్ని కానుకలను ఇస్తుంది. వాటిని స్వీకరించి, వెళుతుండగా, తనకు సత్యభామ నమస్కరించగా శచీ దేవి ఆమెను పలకరిస్తూ మళ్ళీ ఇలా అంటుంది.

<u>నాగవల్లి వ్రతము:</u> తర్వాత శ్రీకృష్ణుడు "ఇంకా ఆలస్యం దేనికి వెంటనే బయలు దేరి ఇంద్రప్రస్థానికీ చేరీ నాగవల్లి అనే వివాహననతర కార్యక్రమాని పూర్తి చేయండి" అని చెప్పీ ధనుర్భాణాలను రథాన్ని గుర్రాన్ని ఇచ్చి పంపిస్తారు. తర్వాత "సుభద్రార్జునులు ఇంద్ర ప్రస్థానికి వస్తున్నారనే" వార్తను వేగుల వారితో ధర్మరాజకు

పంపిస్తారు. శ్రీకృష్ణుడు అన్నీ ఏర్పాట్లు చేసి ఏమీతెలీనట్లారాత్రే బలరామని వద్దకువెళ్తాడు. దేవకీదేవి సుభద్రను తన అత్తారింటికి పంపటానికి ఏర్పాట్లు చేస్తుంది.

<u>పెళ్లికూతురి పుట్టింట మమకారం:</u> అత్తవారిల్లు ఎంత గొప్పదైనా,ఎన్ని సంపదలున్నా, భర్త మీద ఎంత ప్రేమ వున్నా, ఆడపిల్లకు పుట్టినింట మీదనే ఆశ వుంటుంది.

<u>సుభద్రకు తల్లి ఓదార్పు:</u> సుభద్ర కళ్ళలో నీళ్ళు పొంగుకొస్తూ వుంటే చూసిన దేవకీ దేవి తన ముద్దుల కూతురైన సుభద్ర ఏడవటం చూసి "నీ భర్త చాలా గొప్పవాడు. అన్నీ నీకు అనుకూలమైనవే.నిన్ను చూడటానికి మేమూ తొందరలోనే వస్తాము. ఇంతలోనే ఎందుకు బాధపడతావు" అని ఓదార్చి, దీవించి, ధైర్యం చెప్పి పంపిస్తుంది.

<u>ఉభద్రార్జునులు రథంపై వూరేగడం:</u> రథంపై పోతున్న దంపతుల్ని చూసిన వారు వారిరువురినీ రతీ మన్మథుల్లాగా భావించారు. పచ్చని గుర్రాలు, అందమైన విల్లు, సొగసైన బాణాలు వుంటే వీరు రతీ మన్మథులు కాక మరేమవుతారు? అచ్చంగా రతీ మన్మథులే. ఈ పాఠం నిండా తెలుగు వారింట్లో జరుగుతున్న పెళ్లి వేడుకల్ని మనం చూడచ్చు. మన ప్రాచీన సాహిత్యంలో ఇలాంటి సంస్కృతి సంప్రదాయాల్ని ప్రతిబింబించే ఎన్నో అంశాల్ని గమనించవచ్చు .

OUTCOME-BASED EDUCATION (OBE), Dr. G. David Livingstone, Head, Department of Politics &Vice Principal,D.N.R. College (Autonomous), Bhimavaram – 534 202.

OUTCOME-BASED EDUCATION (OBE)

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Definition: Outcome-Based Education (OBE) is an instructing and learning system in which the course conveyance, evaluation wish to accomplish expressed destinations and results. It centers on estimating results at various levels. Some significant parts of the Outcome Based Education:

Course is defined as a theory, practical or theory cum practical subject studied in a semester.

1. Course Outcome (CO) Course results are explanations that depict critical and fundamental discovering that students have accomplished, and can dependably exhibit toward the finish of a course. By and large at least three course results might be determined for each course dependent on its weightage.
2. Program is characterized as the specialization or order of a Degree. It is the interconnected game plan of courses, co-curricular and extracurricular exercises to achieve foreordained targets prompting the granting of a degree. For Example: B.E., Marine Engineering
3. Program Outcomes (POs) Program results are smaller proclamations that depict what understudies are required to have the option to do when of graduation. POs are relied upon to be adjusted intimately with Graduate Attributes.
4. Program Educational Objectives (PEOs) The Program Educational Objectives of a program are the explanations that portray the normal accomplishments of graduates in their vocation, and furthermore specifically, what the alumni are relied upon to perform and accomplish during the initial not many years after graduation.
5. Program Specific Outcomes (PSO) Program Specific Outcomes are what the understudies ought to have the option to do at the hour of graduation with reference to a particular order. For the most part there are two to four PSOs for a program.
6. Graduate Attributes (GA): The alumni properties, 12 in numbers are models of the characteristics expected of an alumnus from an authorized program.

PROGRAMME OUTCOMES

On successful completion of Graduate & Post Graduate programme, graduating students/graduates will be able to:

PO 1 Area Expertise:
  ➢ Acquire far reaching information and aptitudes.

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- ➢ Make utilization of the learning in a creative way.
- ➢ Effectively apply the learning and abilities to address different issues.

PO 2 Life-long Learning and Research:
- ➢ Learn "how to learn"- Self roused and self coordinated learning.
- ➢ Adapt to the regularly rising requests of work spot and life.
- ➢ Be curious and set up circumstances and logical results relationship.
- ➢ Investigate and report.

PO 3 Modern gear Usage
- ➢ Use ICT successfully.
- ➢ Access, recover and utilize confirmed data.
- ➢ Access, recover and utilize confirmed information. Have learning of programming applications to break down information.

PO 4 Computing Skills and Ethics
- ➢ Develop basis and logical reasoning procedure.
- ➢ Use innovation keenly for correspondence, diversion and to support humanity.
- ➢ Ensure moral practices all through ones undertakings for the prosperity of human race.

PO 5 Complex issue Investigation and Solving
- ➢ Predict and investigate issues.
- ➢ Frame theories.
- ➢ Investigate and translate experimental information.
- ➢ Plan and execute activity.

PO 6 Perform viably as Individuals and in Teams
- ➢ Work proficiently as a person
- ➢ Cooperate, facilitate and perform adequately in different groups/gatherings.
- ➢ Prioritize regular enthusiasm to singular intrigue.

PO 7 Efficient Communication and Life Skills
- ➢ Express considerations in a viable way
- ➢ Listen, comprehend and venture sees in a persuading way.
- ➢ Decide suitable media to share data
- ➢ Develop aptitudes to exhibit huge data unmistakably and briefly to intrigued gatherings.

PO 8 Environmental Sustainability
- ➢ Understand reasonably the Environmental difficulties.
- ➢ Think fundamentally on condition maintainability measures.
- ➢ Propagate and pursue condition cordial practices.

PO 9 Societal commitment
- ➢ Render administration for the general great of the general public.
- ➢ Involve deliberately in social advancement exercises at Regional, National, worldwide dimensions.

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> ➤ Have possess pride in volunteering to address societal issues viz: cataclysms, calamities, neediness, scourges.
> ➤ Be an enthusiastic native to maintain the estimations of the country

PO 10 Effective Project Management
> ➤ Identify the objectives, goals and parts of a venture and choose the fitting time of fruition.
> ➤ Plan, sort out and direct the undertakings of groups to accomplish the set focuses in time.
> ➤ Be capable in recognizing openings and create methodologies for possibilities.

COURSE OUTCOME

S. No.	Semester	Course Code	Course	Course Outcome
1	I	1109-1A	Basic Concepts of Political Science – 1A	To Discuss the most important political theorists in the western tradition and the ideas associated with them. To Describe basic political and governmental structures, processes, and policies To understand what is law, liberty and equality To have more idea on various rights and duties and also how to behave in the society
2	II	1109-1B	Political Science - Concepts, Theories and Institution – 1B	To understand the nature and scope of political theory. To understand the significance of political theory. To acquaint with the theories, approaches, concepts and principles of political theory. To appreciate the procedure of different theoretical ideas in political theory.
3	III	1209-2A	Indian Constitution – 2A	To have the knowledge of how governments work To learn and acquire in-depth knowledge of their society and how it functions To know about the Evolution of Indian constitution, Fundamental Duties & Supreme court functions to prepare for competitive exams and useful for civil service aspirants.
4	IV	1209-2B	Indian Political Process – 2B	To have an idea on caste system in India To know the evolution of modernity in India To have overall idea on electoral trends of the loksabha from 1952 to 2004 To understand the party system and ideology of various parties Ex: INC, BJP, CPM, DMK, TDP etc.

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5	V	1309-3A	Indian Political Thought – 3A	To demonstrate knowledge of key thinkers and concepts To understand the nature, methods and significance of political thought. To analyze the theory of ancient & medieval political thought of Greek and India. To understand the relationship between religion and politics in early modern western political though
		1409-4A	Local self - government in Andhra Pradesh - 4A	To understand the evolution, scope and significance of international relations and the rise of sovereign state system To analyze the history of international relational through the causes and phases of colonialism. To know the impact of first world war and second world war and its causes and consequences To criticizes the various ideologies which lead to the destruction of world.
6	VI	1309-3B	Western Political Thought – 3B	To have an idea on western political philosophy To know the ideas various thikers like Plato Aristotle To have an idea on Modern Political Thought propounded by Hobbes Locke Rousseaue To have an idea on theory of JS Mill and Karl Marx
		1409-4B	International Relations – 4B	To understand the evolution, scope and significance of international relations and the rise of sovereign state system To analyze the history of international relational through the causes and phases of colonialism. To know the impact of first world war and second world war and its causes and consequences To criticizes the various ideologies which lead to the destruction of world.
		1409-5B	Indian Foreign Policy-5B	To have a knowledge on Indian foreign policy Student is able to understand the role of India in the non-alignment movement To know the composition and powers of UNO To have more idea on Indo-pak relations and have an idea on SAARC
		1409-6B	Contemporary Global Issues-6B	To Demonstrate competent knowledge of world geography, comparative political system and the principles of Global issues. To Demonstrate in thinking systematically about5 political interactions in national, global and International contexts.

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PROGRAMME SPECIFIC OUTCOMES (PSO's)

B.A. - HISTORY, ECONOMICS, POLITICS (H.E.P.)

PSO 1: Understand the basic concepts like National Income, Poverty, Employment, International trade. Fiscal and monetary policies, Economic conditions of various historic periods, Satavahanas Foreign trade, Mathematics, Agriculture economy from ancient period to modern times and their role in administration for formulating relevant policies for effective utilization of resources and tackling various problems like unemployment and improved standard of living.

PSO 2: To analyze the economic importance of various sectors like agriculture, industry and service in different dynasties that influence administration like Chola administration (Local self-Government), Mauryan administration (Urban Governance) and British administration.

PSO 3: To understand the impact of agriculture and foreign trade in economic development that attract foreign invaders towards India, resulting in changed administration in due course up to and after independence.

PSO 4: To provide life skills required for gainful employment by using domain knowledge such as Economic Services, Historians/ History writing and bureaucrats at various levels.

B.A. – SOCIAL WORK, ECONOMICS, POLITICS (S.E.P.)

PSO 1: To study and understand the fundamental concepts and components of community organization. To gain knowledge about practice the models and approaches of community organization.

PSO 2: To get oriented to social reform movement in India. To gain knowledge of normal and abnormal behavior so as to work with different personalities.

PSO 3: To able to understand basic concepts of economics. To able to analyze economic behavior in practice. Understand the economic way of thinking. The ability to analyze historical and current events from an economic perspective.

PSO 4: To write clearly on issues of domestic, international politics and matters of public policy. To participate as a civically enlightened and engaged member of society. To form an independent opinion and options about political and policy problems.

PSO 5: To form an independent opinion and options about political and policy problems. To use electronic and traditional library resources to research key local, state, national and international policy matters.

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B.A. - GEOGRAPHY, HISTORY, POLITICS (G.H.P.)

PSO 1: Understand the Physical and political boundaries of dynamics from ancient period to   modern times.

PSO 2: To analyze the influence of Indian location and geographical features such as Himalayas and Oceans, Plains attract the foreign invaders for political and commercial establishments.

PSO 3: To examine the relationship between the administration and historical legacy.

PSO 4: To provide skills required for gainful employment by using knowledge of geography, history and political science such as Surveyors, Tourist guides and Political analysts.

PSO 5: To inculcate various values such as the sense of belonging to a particular nation respecting the ideals of freedom struggle and responsible citizenship and promoting these values.

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स्नातक स्तर पर द्वितीय भाषा के रूप में हिन्दी सिखाने का मुख्य उद्देश्य तथा कौशल

आलपाटि भानु प्रसाद
हिन्दी प्रध्यापक,
शासकीय महा विद्यालय,
अवनिगड्डा, कृष्णा जिला ।

मानव एक सामाजिक प्राणी है । सीखना उसकी सतत् तथा जीवन पर्यन्त चलनेवाली प्रक्रिया है । सीखने की यह प्रक्रिया अनुकरण से शुरू होता है । बच्चे अपने माँ-बाप, आस-पड़ोस तथा गुरुजनों का अनुकरण करते हुए बोलचाल की भाषा सीखते हैं । भाषा के संबंध में अयोध्या सिंह उपाध्याय ने बताया है कि- भाषा यह शब्द जितना आकर्षक तथा मोहक है, उतना ही गंभीर तथा कौतूहलजनक है । भाषा सीखने की एक प्रक्रिया रहती है । भाषा को औपचारिक तथा अनौपचारिक तौर पर सीखना है तभी हमें भाषा का समृद्ध ज्ञान होता है । भाव पक्ष के साथ-साथ क्रिया पक्ष की जरूरत है ।

स्नातक स्तर पर द्वितीय भाषा हिन्दी सिखाने का मुख्य उद्देश्य इस प्रकार हैं ।

1. भाषा पर पूर्ण अधिकार प्राप्त कराना ।
2. साहित्य की विविध विधाओं का परिचय कराना जैसे गद्य तथा पद्य ।
3. साहित्य पठन के साथ-साथ साहित्य सृजन की प्रेरणा दिलाना ।

आन्ध्र प्रदेश में स्नातक स्तर पर द्वितीय भाषा के रूप में तेलुगु, हिन्दी तथा संस्कृत में किसी एक भाषा को चुनते हैं । स्नातक स्तर पर प्रथम, द्वितीय तथा तृतीय सत्रों में हिन्दी सिखाने का मुख्य उद्देश्य छात्रों को साहित्य की विविध विधाएँ जैसे गद्य तथा पद्य की पूर्ण जानकारी दिलाना है । पद्य तथा गद्य साहित्य के दो बलवान हस्त ही नहीं बल्कि दो चेतनामय नेत्र हैं । भाषा साहित्य में गद्य के पहले पद्य का ही विकास हुआ है । बीसवीं सदी में गद्य ने पद्य को पीछे छोड़ दिया है । भाषा तथा अभिव्यक्ति के स्तर पर गद्य की अपनी विशेषताएँ हैं । गद्य सरल तथा स्थूल अर्थ बोधक होता है । गद्य की विभिन्न विधाओं जैसे नाटक, उपन्यास, कहानी , निबंध , यात्रा-वृत्त आदि का परिचय प्रथम तथा द्वितीय सत्रों में कराया हैं । गद्य की प्रमुख विधाओं में निबंध एक है । संप्रेषण की कुशलता तथा वैचारिक क्षमता के कारण निबंध गद्य की रीढ़ माना है । इसी कारण प्रथम सत्र में साहित्य की महत्ता, सच्ची वीरता तथा मित्रता नामक तीन निबंधों को चुन लिया है जो छात्रों को अत्यंत उपयुक्त तथा प्रेरणादायक हैं ।

साहित्य की महत्ता आचार्य महावीर प्रसाद द्विवेदी जी के द्वारा लिखा गया निबंध है । महावीर प्रसाद द्विवेदी जी युग प्रवर्तक साहित्यकार है । उसने स्वयं साहित्य का सृजन किया तथा अन्य कवियों को साहित्य की रचना करने में प्रेरणा दी । लगभग बीस साल सरस्वति पत्रिका के द्वार साहित्य सेवा की । प्रस्तुत निबंध में साहित्य की विविध मुखी महत्ता पर विचार किया है । साहित्य सृजन सभ्यता का सूचक है । ज्ञान तथा विज्ञाने मानव जीवन को सुगम बनाया है । साहित्य मानव जीवन को सुंदर तथा

आकर्षक बनाया है । रोटी, कपड़ा तथा मकान मानव की मौलिक आवश्यकताएँ हैं । इनसे मानव की आजीविका चलता है । साहित्य से मानव मन का विकास होता है । मनुष्य अपने भावों तथा विचारों को वाणि के माध्यम से व्यक्त करता है । यही वाणि की अभिव्यक्ति या शब्द चित्र साहित्य है । भाषा के विकास के लिए साहित्य की आवश्यकता है । जिस भाषा में साहित्य नहीं है उस भाषा का विकास कभी भी संभव नहीं है । साहित्य तथा समाज दोनों एक दूसरे के पूरक हैं । साहित्य के बिना समाज का विकास संभव नहीं है तथा समाज के बिना साहित्य का अस्तित्व ही नहीं । साहित्य मुर्दों को भी जिन्दा करने वाली अद्भुत औषध है । इस निबंध के द्वारा छात्रों को साहित्य की महत्ता पर पूर्ण जानकारी मिलेगी तथा किस प्रकार का साहित्य पढ़ने से अपना जीवन सार्थक बनता है , उसे ज्ञान मिलेगी । जिस प्रकार विकृत भोजन से शरीर रोगग्रस्त बन जाता है ठीक उसी प्रकार विकृत साहित्य से मन खराब हो जाता है । तेलुगु में एक कहावत है कि "कत्ति कंटे कलमु गोप्पदि ". जिसका अर्थ है कृपाण से भी कलम का बड़ा महत्व है ।

सच्ची वीरता प्रथम सत्र का दूसरा पाठ है । इस निबंध के लेखक सरदार पूर्णसिंह है । उसने इस में यह साबित करने का प्रयास किया कि केवल यद्ध में लड़ने वाला ही वीर नहीं , वरन् किसी पवित्र ध्येय, आदर्श तथा कार्य के लिए साधना करने वाले व्यक्ति भी सच्चे वीर कहलायेंगे । सच्चे वीर वही जो अपनी आत्मिक शक्ति को बढ़ाता है , संसार से प्रेम करता है तथा संसार को अमर आदर्श दे जाता है ।इस निबंध के द्वारा छात्रों को सच्ची वीरता की जानकारी मिलेगी । संकट स्थिति में भागने वाला वीर नहीं कहलायेगा । समस्याओं से लड़ कर जीतने वाला ही सच्चा वीर कहलायेगा ।

मित्रता इस सत्र का तीसरा निबंध है । इस के लेखक आचार्य रामचंद्र शुक्ल जी है । यह निबंध पढ़ने के बाद छात्रों को यह ज्ञान मिलता है कि मित्रता क्या है, मित्र की आवश्यकता क्या है तथा मित्र को चुनते समय किन-किन बातों को ध्यान रखना है आदि विषय मालूम हो जायेंगे । शुक्ल जी के साहित्यिक निबंध उच्चकोटि के हैं । मानव एक सामाजिक प्राणि है । परिवार के सदस्यों के साथ-साथ अन्य लोगों के सांगत्य की जरूरी है । मित्र से बढ़कर मनुष्य का और कोई साथी नहीं हो सकता । मानव जन्म से लेकर मृत्यु तक अनेक व्यक्तियों के साथ मित्रता करता रहता है । पर मित्र को चुनते समय सावधान रहना चाहिए । किसी व्यक्ति से मित्रता करने के पहले उस व्यक्ति को अच्छी प्रकार परीक्षा कर लेना चाहिए । सच्चा मित्र जीवन का वरदान है । जिसको सच्चा मित्र मिलता है, उसका जीवन धन्य बन जाता है क्योंकि संगति का जीवन पर गुप्त प्रभाव पड़ता है ।

इन निबंधों के साथ-साथ मुक्तिधन, गूदड़ साई तथा उसने कहा था आदि तीन कहानियों का परिचय कराया । कहानी मनोरंजन के साथ-साथ नैतिक शिक्षा प्रदान करने वाली अद्भुत रचना है । मुक्तिधन की रचना प्रेमचंद ने की । हिन्दी साहित्य इतिहास में प्रेमचंद जी को उपन्यास सम्राट माना । उसने उपन्यासों के साथ-साथ लग-भाग तीन सौ कहानियों की रचना की । मुक्तिधन एक आदर्शोन्मुख यथार्थवादी कहानी है । नेकनियति तथा ईमानदारी व्यक्तियों का मदद हमेशा कोई न कोई करते हैं । इस

कहानी के पात्र रहमत के माध्यम से यह साबित किया । इस कहानी के द्वारा छात्रों को समाज में किस प्रकार का व्यहार करना है आदि समझ में आयेंगे ।

गूदड़ साई कहानी की रचना जयशंकर प्रसाद जी है । हिन्दी साहित्य इतिहास में जयशंकर प्रसाद जी को नाटक सम्राट मानते हैं । प्रस्तुत कहानी में प्रसाद जी ने यह साबित किया कि भगवान सर्वांतर्यामी है । आत्मवत सर्वभूतानी विचारधारा को समझाया ।

उसने कहा था एक अनोखी प्रेम कहानी है । यह कहानी के द्वारा छात्रों को यह नीति मिलेगी कि प्यार शारीरिक भावना नहीं है यह एक मानसिक भावना है । इस कहानी का नायक अपनी वादा निभाने के लिए अपने जान का भी बलिदान देता है ।दूसरे सत्र में संस्कृति और साहित्य का परस्पर संबंध, भारत एक है तथा एच.आई.वी/एड्स निबंध हैं । इस में एच.आई.वी/एड्स वैज्ञानिक निबंध है । संस्कृति और साहित्य का परस्पर संबंध निबंध में संस्कृति का महत्व तथा संस्कृति तथा साहित्य के बीच का संबंध का वर्णन किया गया । इस पाठ से छात्रों को साहित्य तथा संस्कृति का महत्व समझ में आयेगा ।

भारत एक है रामधारी सिंह जी का सांस्कृतिक निबंध है । प्रस्तुत निबंध में भारतीय संस्कृति की एकता पर प्रकाश डाला है । भारत अनेकता में एकता का जीवंत उदाहरण है । भावात्मक एकता ही भारतीय एकता का मूल मंत्र है । इस पाठ के द्वारा छात्रों को भारत की महनता के बारे में मालूम हो जायेगा ।

एच.आई.वी/एड्स वैज्ञानिक निबंध है । एड्स बीसवीं सदी का ला इलाज बीमारी है । इस के बारे सभी को जानकारी दिलाना अत्यंत आवश्यक है । इसी कारण इस पाठ को रखा गया । तृतीय सत्र में पद्य तथा कविता का परिचय कराया है । हिन्दी के प्राचीन तथा महान कवियों का परिचय इस सत्र में कराया । कबीर, सूरदास, तुलसी दास, मैथिलीशरण गुप्त , सुमित्रनंदन पंत. सूर्यकांत त्रिपाठी निराला आदि महान कवियों तथा उनकी रचनाओं का परिचय कराया । मातृभूमि कविता मैथिलीशरण गुप्त जी की अद्भुत कविता है । इस में मातृभूमि की महत्ता के बारे में वर्णन किया । तोड़ता पत्थर निराला जी की प्रगतिवादी रचना है । इस में एक पत्थर तोड़ने वाली औरत का चित्रण किया गया ।

इसके साथ-साथ पत्र-लेखन के प्रकार जैसे व्यक्तिगत तथा आवेदन पत्रों का परिचय कराया है । इस से छात्र अन्य से पत्र व्यवहार हिन्दी में करने की क्षमता प्राप्त हो सके ।

भाषा शिक्षण में व्याकरण का भी अत्यंत महत्व है । व्याकरण सीखने के बिना भाषा पर पूर्ण अधिकार प्राप्त न कर सकते हैं । भाष-भेद जैसे संज्ञा, सर्वनाम, विशेषण आदि का परिचय कराया । लिंग, वचन, उल्टे शब्द, संधि विच्छेद आदि का ज्ञान दिलाया । तकनीकि शब्दावली तथा अनुवाद भी सिखाया गया । इसके साथ-साथ सामान्य निबंध जैसे समाचार पत्र, पर्यावरण और प्रदूषण आदि का स्थान दिया गया ।

इस प्रकार स्नातक स्तर पर द्वितीय भाषा के रूप में हिन्दी सीखने पर छात्रों में भाषा कौशल जैसे सुन कर तथा पढ़ कर भाव ग्रहण करना , लिखकर तथा बोलकर अपने मन की भावनाओं को व्यक्त करने का कौशल बढ़ाने का प्रयत्न किया गया ।

SEMISTER - I

1. **साहित्य की महताः** ज्ञान-विज्ञान जीवन को सुगम बनाते हैं। साहित्य जीवन को सुन्दर बनाता है। अन्य चीजों की तरह साहित्य भी मनुष्य के लिए आवश्यक है। मनुष्य अपने भावों एवं विचारों को साहित्य के माध्यम से व्यक्त करता है। साहित्य सृजन सम्यना का सूचक है। साहित्य को परखकर हम इस समाज की परीक्षा ले सकते है। साहित्य केमाध्यम से मनुष्य का सामाजिक विकास होता है।

2. **सच्ची वीरताः** मानवता के उदार के लिए मर मिटनेवाले महात्माओं को सबसे बडा वीर समझना चाहिए। वीरों का निर्माण किसी बाहरी प्रेरणा या शक्ति से नहीं होता, वीर ती अपनी आत्मा की प्रेरणा से ही वीरता पूर्ण करने के लिए तत्पर हो जाते हैं। रणक्षेत्र में जूझने वाला योद्धा ही वीर नहीं होने, वरम किसी पवित्र हथेय आदर्श और कार्य के लिए साधना करने वाले महालय और व्यक्ति भी सच्चे वीर होते हैं।

3. **मित्रताः** मित्रता में मित्रता का हे, मित्र का महत्व क्या है, प्रमुख रूप से दर्शीया भया है। शुक्ल जी का विचार है कि मित्र को धुनते समय सावधान रहना चाहिए। शुक्लजी उपदेश देने हैं कि किशोशे को उचित है कि मित्र बनाना से पहले व्यक्ति की अच्छी प्रकार से परीक्षा कर लें। जिससे जीवन सुखी रहे और मित्रता जीवन भर चल सके।

4. **मुक्तिधनः** 'मुक्तिधन' एक आदर्शोन्मुख यथार्थवादी कहानी है, जो सारप्रदापिक सपूजीना से ऊपर उठकर मानव्यवहार की उदारता का चित्रण करती है। 'मुक्तिधन' कहानी धार्मि कअसहिष्पुता के इस युग में और भी अधिक प्रासंगक हो जाती है। दाऊदयाल पात्र के द्वारा प्रेमचंद ने इसका यथार्थ चित्रण किया कि हमारे समाज में निम्नवर्ग का शीषण किस स्तर पर हे रहा है। रहमान पात्र इस निम्नवर्ण का प्रतीक है। इस पात्र के माध्यम से देश केनिचले तबकों में उपस्थित ईमानदारी और प्रतिबद्धता का चित्रण करना भी इस कहानी का उद्देश्य है।

5. **गूदडसाईः** 'गूदडसाई' कहानी में जयशंकर प्रसाद मे समझाया कि भगवान सर्वांतर्यामी है। 'आत्मन सर्वभूतानी' विचार धारा को समझाया है।

6. **उसने कहा थाः** इस कहानी में उन्होंने विशुद्ध आदर्स, प्रेम, त्याग, बलिदान तथा संयम पर विशेष बल दिया है। उसने कहा था संवेदन प्रेम और कर्तव्य का उज्ज्वल प्रतीक है।

विशुद्ध प्रेम की चरम परिणति कर्तव्य एवं उत्सर्ग के रूप में अत्यंत कलात्मक ढंग से प्रस्तुत की गई है। इसमें पक्के यथार्थवाद के बीच सुरुचि की चरम मर्यादा के भीतर, भावुकना का चरमोत्कर्ष अत्यन्त नुपुणता के साथ समपुटित है।

7. **कारकः** किसी भा भाषा के अध्ययन-अध्यायन मे 'कारकों' के प्रयोग का सही एवं सटीक ज्ञान वांछित होता है।

8. **लिंगः** हिन्दी में लिंग-निर्धारण के कुछ नियम तो बनाये गये है। लेकिन उनके भी अपवाद सामने आते हैं। अतः हिन्दी में लिंग निर्धारण परम्परा से ही की जा सकती है।

9. **वचनः** शब्द के जिस रूप से वस्तु के एक या अनेक होने का बोध हो, उसे वचन कहते हैं।

10. **कालः** क्रिया का वह रूप जिससे उसके होने के उपाय का बोध हो, काल कहलाता है। अर्थात क्रिया के जिस रूप से वह प्रकट हो कि क्रिया का व्यापार कब हुआ, उसे 'काल' कहते हैं।

11. **वाच्यः** वाच्य क्रिया का वह रूप है जिससे यह विदित हो कि क्रिया द्वारा संपन्न कार्य का प्रधान विषय-कर्त है या कर्म है या भाव।

SEMISTER - II

1. **संस्कृति और साहित्य का परस्पर संबंधः** राष्ट्रीय और संस्कृति का अटूट संबंध है। आर्य-संस्कृति और साहित्य के संबंध में अपने विचार रामायण और महाभारत का उल्लेख करे हुए उन्होंने इस बान की पुष्टि की है. साहित्य में स्वी को समुचित स्थान दिया गया है। हमारी भारतीय संस्कृति वह पवित्र संगम है, जिसमें कई संस्कृति रूपिणी नदियाँ आकर सम्मिलित हो गई हैं।

2. **भारत एक हैः** इसमें भारतीय संस्कृति की एकता पर प्रकाश डाला है। भारत अनेकता में एकता का जीवन उदाहरण है। विविधता के वावजूद भारतीय एकता के लिए मुख्य आधार दर्शन और साहित्य है। भावात्मक एकता ही भारतीय एकता का मूल मंत्र है।

3. **एच.आई.वी./एडसः** 'एच.आई.वी. / एडस' बीसवी सदी का लाईलाज बीमारी है। यह बामारी भरत में भी विशेष तेजी से फैल रही है। लाइलाज होने के कारण इस की जानकारी लेना ही सबसे बडा इलाज है। इसमें मुख्यतः एच.आई.वी एडस का इतिहास,

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भारत में इसका आगमन और फैलाव, इस बीमारी के होने पर होनेवाले लक्षण, इस विषाजु का संक्रमण कैसे होते है, इस बीमारी के प्रति फैली भ्रम भ्रांतियों का परिचय आदि मुद्दे चर्चिन है।

4. **जरिचाः** यह नारी अस्मिता एवं पहचान की कहानी है। नारी-पहचान का बहाना बनाकर पुरूष कैसे उसका-शोषण करना है, इसका मार्मिक उद्घाटन है। साथ ही नारी को सचेत करती है कि इस प्रकार के धोखे के प्रति सावधान रहे।

5. **परमात्मा का कृत्ताः** इस कहानी के माध्यम से सरकारी कार्यालयों का स्पष्ट चित्र उभर कर सामने आता है। एक प्रकार से कहानीकार भ्रष्टाचार का खंडन करते हुए स्वस्थ समाज की कल्पना करने है।

SEMISTER - III

1. **साखी - (कबीरदास)ः** सामाजिक कुरीनियों और धार्मिक बाह्याडंबरों के वे प्रबला विरोधी थे और इसलिए इन्होंने हिन्दू तथा मुसलमान दोनों की चीथी और पाखण्डपूर्ण मान्यताओं पर चीट की।

2. **दोहे - (तुलसीदास)ः** तुलसी की भक्ति में अन्नयता है। इस संदर्भ में उन्होंने चातक पक्षी को अपना आदर्श माना है। उन्होंने भक्ति को चिंतिमणि करा है। शिक और केशव में समन्वय करके दिखाया। तुलसीदास विषय, कला और उद्देश्य आदि सभी दृष्टियों से उदार, प्रगतिशील और जनमानस के कवि है।

3. **रहीमः** कविता में दुःख सुख दोनों की अनुभूति व्यक्त की है। सच्चाई का निर्वाह करते थे।

4. **मातृमूर्तिः** मातृमूर्ति हमें धरती शवी अपने शरीर में जाने के लिए सब कुछ दिये है तुम प्रसन्नता से, प्रेम से उपकार कर रही है। तुम इस गुणों की विरिशत और कुछ किये तो हम सब तु में मिलकर समाप्त हो जाने है। तुम्हारी मदद हम सब पर होना धन्य मानते हो। तुम हमेशा हम को प्यार से ही देखना चाहते हो।

5. **भारतमानाः** इस कविता में कवि ने अपने हेश प्रेम की अभिव्यक्ति की है।

6. **तोडनीपत्थरः** इस में हिन्दी की नवीन शैली हैं। इसमें श्रम सौंदर्य का अद्भुत चित्र खींचा गया। कवि ने एक मजदूरिन की कविता की नायिका बनाया समाज के उपेक्षित तथा शोषित वर्ग के प्रति सहानुभूति प्रकट को है। मानवीय करूणा से युक्त प्रगनिवाद कविता है।

7. **ज्ञानाश्रयी शाखाः** संत कवियों ने अपनी मधुर वाणी से हिन्दी साहित्य भण्डार को भर दिया है। ये सुधारवादी कवि थे। हिन्दू-मुसलमानों का समन्वय का प्रयत्न किया है।

8. **प्रेमाश्रयी शाखाः** इन्होंने भैनिक प्रेम के द्वारा ईश्वरीय प्रेम का प्रतिपादन किया है।

9. **अनुवादः** अनुवाद दो भाषाओं का सेतु है। यह अपने आप में एक सृजनात्मक प्रक्रिया है। विश्व की नवीनतम उपलब्धियों से परिचित होने का अनुवाद एक माध्यम है। इससे हम भावी प्रगति को समकालीन रख सकते हैं।

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SEMESTER - I

➢ साहित्यक रचनाओं के माध्यम से मनुष्य में अच्छी भावनाओं विचारों तथा अभिवृत्तियों का उद्भव किया जा सकता है।

➢ छात्रों को अवगत होता हैं कि - रणक्षेत्रं में जूझनेवाला योद्धा की तुलना में, आदर्श उद्देश्य रखनेवाला व्यक्ति ही सच्चा वीर कहलाता है ।

➢ मित्रता के महत्व के बारे में जानकारी मिलती है तथा सच्चे मित्र को चुनने की योग्यता मिलती है ।

➢ महाजनी व्यवस्था, किसानों की गरीबी, लाचारी आदि सामाजिक समस्याओं का चित्रण मिलता है ।

➢ छात्रों में आध्यात्मिक भावनाओं की जागृति होती है ।

➢ प्रेम की सार्थकता त्याग और बलिदान में ही है की जानकारी मिलती है ।

➢ शुद्ध हिन्दी भा ा का ज्ञान प्राप्त करते है ।

➢ मौखिक तथा लिखित रूप में हिन्दी में अपने भावों को व्यक्त करने की योग्यता विकसित होती है ।

➢ स्वतंत्र रुप से हिन्दी में पत्र-व्यवहार कर सकते है ।

➢ वर्णनात्मक तथा सूचनात्मक सामग्री का संक्षेपीकरण कर सकते है ।

➢ अनुवाद के महत्व की जानकारी मिलती है ।

SEMESTER - II

➤ हमारी साहित्यिक - सांस्कृतिक संपदा को आगामी पीढ़ी तक पहूँचाने के कर्तव्य का बोध होता है।

➤ निबंध का विषय गंभीर और विचार - प्रधान होन के कारण भारतीय संस्कृति तथा इतिहास से परिचय प्राप्त करते है ।

➤ भयानक संक्रमण रोग की जानकारी तथा इसके प्रति फैली भ्रमा भ्रांतियों का परिचय मिलता है ।

➤ वर्तमान समाज की गतिविधियों में बढती स्वार्थप्रवृत्ति तथा लोगों की यूज एण्ड थ्रो (Use and Throw) वाली मानसिकता का वास्तविक चित्रण का ज्ञान प्राप्त करते है ।

➤ समाज की बुनियादि समस्या का चित्रण मिलता है ।

➤ सरकारी कार्यालयों में व्याप्त रिश्वतखोरी और लालफीताशाही की जानकारी होती है ।

➤ अनुवाद की माध्यम से दोनों भाषाओं के व्याकरण की तुलना का ज्ञान प्राप्त करते है ।

➤ हिन्दी में सही वाक्य निर्माण करने का ज्ञान मिलता है ।

➤ विभिन्न प्रकारों के पत्र लिखने की क्षमता वृद्धि होती है ।

➤ भिन्न-भिन्न शब्दों की जानकारी तथा संक्षिप्त शब्दों का प्रयोग कर सकते है।

SEMESTER - III

➤ संत कबीरदास का रहस्यवाद तथा निर्गुण भक्ति का परिचय प्राप्त होता है ।

➤ वात्सल्य भक्ति का ज्ञान मिलता है ।

➤ छात्रों में अपनी मातृभूमि के प्रति प्रेम तथा भक्ति भावना का विकास होता है ।   ➤ प्रगतिवादी दृष्टिकोण का परिचय मिलता है।

➤ कवि की वेदना का परिचय मिलता है तथा उनकी स्थिति का बोध होता है ।   ➤ साहित्य इतिहास की अवधारणा का ज्ञान तथा भक्ति कालीन विभिन्न धाराओं और शाखाओं की जानकारी मिलती है ।

➤ निबंध लेखन की कौशल का विकास होता है ।

➤ कार्यालयीन शब्दावली तथा विभिन्न सरकारी पत्रों का ज्ञान प्राप्त करते है ।

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SEMESTER - I

➤ साहित्य की सर्वांगीण महत्व का परिचय प्राप्त करते है ।

➤ सच्चे वीर पुरु की मानसिकता से अवगत होते है ।

➤ मित्रता के महत्व की जानकारी तथा जिन्दगी में मित्र का स्थान के बारे में जानते है ।

➤ हिन्दू और मुसलमान धर्मों के बीच धार्मिक सहिष्णुता का परिचय प्राप्त होती है । ➤ 'आत्मवत सर्वभुतानि' का सही अर्थ समझ सकते है ।

➤ छात्रों में देश प्रेम की भावना जागृत होती है । वचन पर निभाने की आदत बन जाती है।

➤ हिन्दी भा ा व्याकरण नियमें का जान मिलता है ता की छात्र शुद्ध हिन्दी में बोलने तथा लिखने की क्षमता प्राप्त कर सकते है ।

➤ कर्ता, कर्म तथा भाव के आधार पर शुद्ध वाक्य लिखने की जानकारी मिलती है । ➤ सामान्य रूप से हिन्दी में पत्र लिखने की क्षमता का विकास होता है ।

➤ हिन्दी से अंग्रेजी तथा अंग्रजी से हिन्दी में विभिन्न शब्द एवं वाक्यों को अनुवाद करने योग्य बनते है ।

SEMESTER - II

➤ साहित्य और संस्कृति का परस्पर संबेद की जानकारी मिलती है ।

➤ भारत की भावात्मक एकता का परिचय तथा (विविधता) में एकता कैसी छिपी रही है इनका ज्ञान मिलता है ।

➤ स्वयं संक्रामक रोगों से सचेत रहते हुए, अन्य नागरिकों को भी सचेत रहने के लिए बाध्य करने के योग्य बनते है ।

➤ समाज में व्याप्त स्वार्थ प्रवृत्ति और नारी शो ण का परिचय मिलता है । ➤ मध्यवर्गीय परिवार की समस्था का चित्रण मिलता है ।

➤ समाज के मेहनतकश लोगों के दयनीय जीवन का चित्रण मिलता ।

➤ विभिन्न व्याकरणांश विद्यार्थियों की व्याकरणिक अशुद्दियों को ठीक करने में उपयोगी होते है ।

➤ संक्षिप्त शब्दों में भावाभिव्यक्ति करने की क्षमता उत्पन्न होती है ।

SEMESTER - III

➤ पद्यभाग में पूर्वाधुनिक साहित्य से चथनित कवियों और उनकी रचनाओं के माध्यम से नैतिकता, मासाजिकता और मानवीयता की शिक्षा देते है।

➤ निर्गुण तथा सगुण भक्ति का परिचय मिलता है ।

➤ मातृभूमि के प्रति प्रेम तथा भक्ति भावना का विकाश होता है ।

➤ जैसे - जैसे दिन गुजरते जा रहे है, वैसे वैसे सामाजिक मनुष्य की भावनाओं में हास होता जा रहा है - इसकी जानकारी मिलती है ।

➤ भक्तिकालीन प्रवृत्तियों का तथा तत्कालीन सामाजिक साहित्यिक जैथी विभिन्न परिस्थितियों की जानकारी मिलोगी ।

➤ निबंधों के माध्यम ये छात्रों के सामान्य ज्ञान की वृद्धि होती है ।

➤ अनुवाद का महत्व जान सकते है ।

➤ कार्यालयीन शब्दावली तथा विभिन्न पत्रों के द्वारा कार्यालयीन हिन्दी की जानकारी मिलती है।

PROGRAMME OUTCOMES

समर्पक : श्रीमती जे. जानकी, एम.ए.,बी.ईडि. (एम.फिल.), के.बी.एन. कालेज, विजयवाडा.

I SEM CBHIN101

1. साहित्य के माध्यम से मनुष्य का सामाजिक विकास होता है इसके द्वारा अज्ञान रुपी अंधकार को भी दू र कर सकते है ।
2. वीरता के द्वारा सामाजिक चेतना के साथ ईमानदारी सुसंस्कृत और नागरिक बनने के लिए प्रेरणादेना।
3. मित्रता के उद्देश्य और मानव के जीवन मे उसके मूलय समझना।
4. गरीब किसान की आर्थिक परिस्थिति का यथार्थ चित्रण से परिचित कराना।
5. व्यक्तिगत प्रेम स्ंदेश प्रेम्का मूल्य समझना।।

II SEM CBHIN201

1. आलोचनात्मक तरीके से सोचने कि क्षमता ।
2. संस्कृति और समाज के बारे मे जानना।
3. समाज और साहित्य के बीच के संबध को समझना।
4. सामाजिक सांस्कृतिक चेतना प्राप्त करना।
5. मौखिक, लिखित और पारस्परिक संचार को विकसित करना और अभ्यास करना।
6. नौकरी के लिए आवश्यक कौशल हासिल करना।
7. हिन्दी व्याकरण की परिचयात्मक अवधारणाओं को समझने में सक्षम ।

1. हिन्दी के प्रत्येक काल को दिए गये नामो के महत्व और अधार को समझना।

2. खडीबोली हिन्दी के विकास का विश्लेषण ।

3. साहित्य और समाज में भक्ति पंथ के कवियों द्वारा निभाई गई भूमिका को समझना।

4. प्रत्येक काल के प्रख्यात हिन्दी लेखको की पहचान करना।

5. आत्मज्ञान की खोज विश्लेषण और उसे समृद्ध करना।

6. निबंध लेखन कौशल का विकास।

7. उधोग और स्वशेजगार मे उनके ज्ञान को लागू करना।

8. अनुवाद के महत्व को समझना।

9. शोध की अवघारणाओ और विधियो को समझना।

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Workshop on OUTCOME BASED EDUCATION (OBE)-POSSIBILITIES AND CHALLANGES in Hindi

डॉ. काकानि श्रीकृष्ण,
मो.नं. 9395364161

'साहित्य की महता' निबंध मे साहित्य की बहुमुही महत्ता पर विचार किया है। अन्य चीजों की तरह साहित्य भी मुनष्य केलिए आवश्यक है। मनुष्य अपनेभावों एवं विचारों को साहित्य के माध्यम से व्यक्त करता है।

'सच्ची वीरता' नामक निबन्ध में रणक्षेत्र में जूझने वाला योद्धा ही वीर नहीं होते, वरन् किसी पवित्र ध्येय आदर्श और कार्य केलिए साधना करने वाले महत्मा और साधू भी सच्चे वीर होते है। 'मित्रता' निबन्ध में मित्र से बढ़कर मनुष्य का और कोई साथी नहीं हो सकता है। मनुष्य के जीवन में बचपन से लेकर बुढ़ापे तक मित्र बनाये जाते है।

'मुक्ति धन' एक आदर्शोन्मुख यथार्थवादी कहानी है, जो सांप्रदायक संपूर्णता से ऊपर उठकर मानव व्यवहार की उदारता का चित्रण करती है। यह कहानी धार्मिक असहिष्णता के इस युग में और भी अधिक प्रासंगिक हो जाती है।

'गूदडसाई' कहानी में भगवान के अस्तित्व की भावना का चित्रण है। आत्मवत् सव भूतानी की भावना ही भगवान के अस्तित्व की भावना है।

'उसने कहा था' हिन्दी कथा–साहित्य की एक अनोखी प्रेम कहानी है। लहनासिंह अपने प्राणोंतक त्यागकर अपनी बल्य प्रेमिका के पति और पुत्र की रक्षा करता है।

'संस्कृति और साहित्य का परस्पर संबंध' निबन्ध में साहित्य और संस्कृति के अटूट संबंध को व्यक्त किया है।

'भारत एक है' सांस्कृतिक निबन्ध है। इसमें लेखक ने भारतीय संस्कृति की एक पर प्रकाश डाला है। उनके अनुसार भारत अनेकता में एकता का जीवन्त उदाहरण है।

'एच आई वी/एड्स' कए वैज्ञानिक निबन्ध है। यह बीसवीं सदी की लाइलाज बीमारी है।

'जरिया' कहानी नारी अस्मिता एवं पहचान की कहानी है। साथ ही नारी को सचेत करती हुई धोके के प्रति वह सावधान करती है। 'भूखा हड़ताल' की कहानी में एक स्वाभिमान जीवन बिताने वाले एक लकड हारें की मनोभावना और बाधा का चित्रण है। 'मेहर बानी' से एक दिन की भूख मिटती है, लेकिन भूख की समस्या हमेशा की है, उसे मिटाने का काम सककार की है।

'परमात्मा का कुत्ता' एक सामाजिक अंश को लेकर लिखी गयी कहानी है। सरकारी कार्यलयों में होनेवाले भ्रष्टाचार का रोचक ढंग से चित्रण किया गया है।

जब हम अपने मनोभावों तथा विचारों को अन्य लोगों को लिखित रूप में भेजते हैं तब उसे पत्र कहते है।

'पारिभाषिक शब्दावली से भाषा पर अधिकार प्राप्त कर सकते । व्याकरण पढ़ने से भाषा के कुशल बन जायेगा, अनुवादिक भी बनेंगे।

प्राचीन कवियों के दोहो तथा पदों को पढ़ने से समसामयिक विषयों के साथ विद्यार्थियों में सद्भावना बढ जाती है।

कबीर के दोहों से विद्यार्थियों की बुद्धि के विकास के साथ–साथ देश तथा समाज के विकास में सहयोग होगा।

सूरदास कृष्ण की बाल लीलाओं के चित्रण में अनन्य सफलता पा सके हैं।

'मातृभूमि' से हम सदा त्यार करना है। उसके बिना हम नहीं रह सकते हैं।

'तोडती पत्थर' कविता में निराला ने श्रमजीवी का गौरव बढाने की कोशिश की।

'गीत फरोश' कविता में जीवन के काल चक्र में मारण–जीवन स्वाभावित है। इससे हार–जी निरन्तर चलने वाली प्रक्रिया है, इसे सामना करना मनुष्य का कर्तव्य है।

धार्मिक समन्वय चाहने वाले लोगों ने इस्लाम और हिन्दू धर्म दोनों में एक श्वरवाद और प्रेम भावना को बहुम प्रोत्सन मिला। दोनों ने अपनी रचनाओं के द्वारा भारत के धार्मिक एवं सांस्कृतिक समन्वय में सहयोग दिया।

अनुवाद दो भाषाओं की सेतु हैं। वस्तुत अनुवाद एक कला भी है, विद्वान भी है।

विद्यार्थियों ने वाक्यों को अनुवाद करने से अनुवाद की कुशलता उनमें बढ जायेगी।

निबन्धों को पढ़ने से विद्यार्थियों को ज्ञान तथा समाज के प्रति जागरूक बन जाते हैं।

भाषा के व्यवहारिक पक्ष को उजागर करने केलिए प्रयुक्त भाषायी रूप को प्रयोजन मूलक भाषा कहते हैं। इसको पढ़ने से विद्यार्थियों को अनुवादक बनने केलिए उपयोगी है।

हमारी राष्ट्रभाषा हिन्दी है, इसके अलावा वह राजभाषा और संपर्क भाषाके रूप में प्रयुक्त होनेवाली है।

इन सभी विषयों पढ़ने या प्राप्त करने के बाद विद्यार्थियों ने समाज में सच्चे नागरिक बन जाते हैं। इन सभी विषय विद्यार्थियों को अपने जीवन में लाभदायक भी हैं।

सहायक आचार्य, हिंदी विभाग, आचार्य नागार्जुन विश्वविद्यालय, नागार्जुन नगर–522 510

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OUT COME BASED EDUCATION

डा.पि.शांति

नोबुल कालेज ,

मचिलीपट्नम .

SEM-1

1.साहित्य की महत्ता - महावीर प्रसाद द्विवेदी

मनुष्य अपने भावों एवं विचारों को साहित्य के माध्यम से व्यक्त करता है I अन्य चीजों की तरह साहित्य भी मनुष्य के लिए आवश्यक है I जिस प्रकार शरीर के लिए पौष्टिक भोजन खाते है उसी प्रकार मानसिक तंदुरुस्ती के लिए साहित्य को पढ़ना और सुनना है साहित्य को पढ़ने से संसार में होनेवाले सभी विषयों की जानकारी होती है I

2.सच्ची वीरता - सरदार पूर्णसिंह

किसी पवित्र ध्येय आदर्श और कार्य के लिए साधना करने वाले महात्मा और साधू व्यक्ति सच्चे वीर होते है वीरता को दिखाने का मैदान एक नहीं है I सच्चे वीर कहलाने के लिए निरंतर परिश्रम करना चाहिए I

3.मित्रता- आचार्य रामचंद्र शुक्ल

मित्रता द्वारा सच्चा स्नेह,सम्पूर्ण आत्मीयता का विकास होता है I मित्रता का प्रभाव हमारे आचरण पर बड़ा भारी पड़ता है अच्छे मित्र को चुनना है अच्छे मित्र से होने वाले लाभ और बुरे सांगत्य से कैसे पतन कोटा है,इन सभी बातों को उदहारण सहित स्पस्ट किया है I

4.मुक्ति धन - मुंशी प्रेम चंद

साम्प्रदायिक सम्पूर्णते से ऊपर उठकर मानव व्यवहार की उदारता का चित्रण करती है I रेहमान के ईमानदारी और प्रभाव शाली गुणों से प्रभावित होकर कठोर दावू दयाल का हृदय परिवर्तन होता है एक कठोर महा राज का आदर्शपूर्ण परिवर्तन देखते है I

5.गूदड़ साई -जय शंकर प्रसाद

गूदड़ साई कहानी में जयशंकर प्रसाद ने समझाया कि भगवान सर्वान्तर्यामी है "आत्मवत सर्वभूतानी"

विचारधारा को समझाया है इस कहानी में भगवान के अस्तित्व की भावना का चित्रण है साई बच्चों में भगवान का दर्शन करता हैं I उसकी विचार धार से मोहन के पिता चकित हो जाते है I

6.उसने कहा था- चंद्रधर शर्मा गुलेरी

अपने वादे को पूरा करने के लिए अपने प्राणों तक त्याग देना लहना सिंह के चरित्र की विशेषता है प्रेम का यथार्थ स्वभाव प्रकट करना इस कहानी का उद्देश्य है I

SEM-2

1. संस्कृति और साहित्य का परस्पर सम्बन्ध -डा.सुनदर रेड्डी

साहित्य और संस्कृति का सम्बन्ध परस्पर आधारित है I भारत देश वेद-पुराण ,उपनिषद आदि के लिए विश्व विख्यात है I साहित्य समाज की शान व गौरव है ,उसी से मनुष्य की पहचान बनती है I

2.भारत एक है -रामधारी सिंह दिनकर

इस पाठ में लेखक भारत में दिखायी देनेवाली विभुंनतावों में एकता निरूपित करने का प्रयत्न किया I विविधता के बावजूद भारतीय एकता के लिए मुख्य विषय दर्शन और साहित्य है I भावात्मक एकता भी भारतीय एकता का मूलमंत्र है I

3.एच .आई.वी ./ऐड्स

एच .आई.वी ./ऐड्स बीसवीं सदी के लाइलाज बीमारी है I इसकी जानकारी लेना जरूरी है प्रस्तुत पाठमे एच .आई.वी ./ऐड्स का इतिहास,भारत में इसका आगमन और फैलाव,इस से होनेवाले लक्षण,भीमारी का संक्रमण कैसे होता है,इस से प्रति फैली भ्रम,भ्रांतियों का परिचय मिलता है

4.जरिया-चित्रा मृदुगल

इस कहानी में समाज की वर्तमान गति विधियोंमें बढ़ती धोके बाजी-झूठे व्यवहार तथा लोगों में बढ़ती स्वार्थी प्रवृत्ती का पर्दा फाश किया गया है I नारी -पहचान का बहाना बनाकर कैसे उसका शोषण किया जाता है,उसका चित्रण है I नारी को सचेत रहने का उपदेश है I

5.भूख हड़ताल -श्री बाल शौरी रेड्डी

कहानी का मुख्य उद्देश्य आज के समाज एवं निम्न वार्ड किन मनः स्तिति का विशद वर्णन है अनपढ़ का ओट काम आता है पर उसे सरकारी नौकरी नही मिलपाती I सरकार अशिक्षितों की भी ध्यान रखना चाहिए I स्वाभिमान जीवन जीने का उपदेश हैं I

6.परमात्मा का कुत्ता-मोहन राकेश

प्रस्तुत कहानी में सरकारी दफ्तरों में व्यापत भ्रस्टाचार तथा उदासीनता का चित्रण है समाज की वास्तविक परिस्तिति का चित्रण है लेखक कहते है की जनता जब सचेत बने गी तब भ्रस्टाचार नाश होगा I

SEM-3

1.कबीर दास -साखी

साधू और सज्जन लोगों के स्वभाव सूप के स्वभाव जैसा होना चाहिये अच्छे गुणों को अपने में रखकर बुरे गुणों को छोड़ देना है I साधू लोगों के जाती प्रान्त के बारे में नही, जान के बारे में पूछना है अपने निंदा करने वालों को पास रखने से मन को निर्मल बनासकते है I अहंकार को छोड़ना है I

2.मातृभूमि-मैथिली सरन गुप्त

कवी के अनुसार हर एक व्यक्ति के जन्म से मृत्यु पर्यंत का जीवन मातृभूमि से सम्बध्द है जीवन,घर-बार ,पालन -पोषण सभी का आधार मातृभूमि ही है I मातृभूमि के महात्वको जानकार आभार रहना चाहिए I

3.तोड़ती पत्थर -निराला

पत्थर तोड़ने वाली मजदूरिन के लिए पत्थर तोड़ना,अपना कार्य प्रिय है क्यों की पत्थर तोड़े बिना उसका पेठ नही भरता प्रतिकूल परिस्तिथि में भी वह अपने काम में लीन थी इस लिए छात्रों को जो भी पढ़ना है ,उसे मन लगा कर पढ़ना चाहिए किसीभी अवसथा में बीच में नहीं रूखणा है I

4.गीत फरोश -भवानी प्रसाद मिश्र

जीविको पार्जन के लिए कलाकार को जनता की अभिरुचि के अनुसार चलना पढ़ता है इस में आधुनिक कालीन कुछ कवियों के प्रति व्यंग्य करते हैं कविता को जीविका के लिए गिराने वाले चीज नही बनना है I

OUTCOME BASED EDUCATION

Sk.Anwar,
Lecturer in Hindi,
AG & SGS Degree College ,
Vuyyuru

FIRST SEMESTER COURSE OUTCOMES

गद्य संदेश

1.साहित्य की महत्ता –इस निबंध के द्वारा साहित्य की महत्व के बारे में मालूम होता है ।

2. सच्ची वीरता- इस निबंध के द्वारा सच्चे वीर का स्वभाव के बारे में और सच्चे वीरों महत्व के बारे में मालूम होता है ।

3.मित्रता-इस निबंध पाठ के द्वारा सच्चे मित्रों से लाभ और बुरे मित्रों से होने वाले हानियों के बारे में मालूम होता है। मित्रता के महत्व के बारे मे भी पता चलता है ।

कथा लोक

1.मुक्तिधन -इस कहानी के द्वारा गरीब किसानों की जीवन में रहने वाले समस्याओं के बारे में मालूम होता के बारे में मालूम होता है।

2. गूदड़ साई –भगवान सर्वातर्यामी है और छोटे बच्चों में भगवान को देखना चाहिए आदि के बारे में मालूम होता है ।

3.उसने कहा था - इस कहानी के द्वारा देशभक्ति और प्रेम के महत्व के बारे में मालूम होता है।

SECOND SEMESTER COURSE OUTCOMES

गद्य संदेश

1.संस्कृति और साहित्य का परस्पर संबध- इस निबंध के द्वारा भारत देश के संस्कृति और साहित्य की महत्व के बारे में मालूम होता है ।

2.भारत एक है- इस निबंध के द्वारा भारत देश के धर्म, संस्कृति, सभ्यता और जीवन शैली के बारे में मालूम होता है ।

3.ऐच.आई. वी (एड्स)- इस निबंध के द्वारा ऐच.आई.वी(एड्स) भारत में कैसा फैला है और उस बीमारी के लक्षण और कैसे संक्रमणऔरनिवारणमार्गआदि के बारे में मालूम होता है ।

कथालोक

1.जरिया- इस कहानी के द्वारा समाज में नारी का स्थान और समाज से जुड़ी समस्याओं के बारे में मालूम होता है ।

2.भूख हड़ताल-लकडहारों के जीवन में रहने वाली भूख की समस्या और उस भूख समस्या परिष्कार आदि के बारे में मालूम होता है ।

3.परमात्मा का कुत्ता-इस कहानी के द्वारा सरकारी कार्यालयों में होने वाले भ्रष्टाचारों के बारे में मालूम होता है।

THIRD SEMESTER COURSE OUTCOMES

प्राचीन कविता

1.साखी- इस कविता के द्वारा कबीरदास का जीवन परिचय और उनके समाज सुधारक दोहों का महत्व के बारे में मालूम होता है ।

2.बाल वर्णन-इस कविता के द्वारा कृष्ण भक्त कवि सूरदास का जीवन परिचय और बाल कृष्ण की सुंदरता के बारे में मालूम होता है।

आधुनिक कविता

1.मातृभूमि -इस कविता के द्वारा मातृभूमि से होने वाली लाभ और मातृभूमि के महत्व बारे में मालूम होता है।

2.मातृभाषा के प्रति -इस कविता के द्वारा मातृभाषा सीखने आवश्यकता और मातृभाषा से रहने वाले लाभों के बारे में मालूम होता है ।

3.तोडती पत्थर –इस कविता में प्रकृति के चित्रण के द्वारा श्रमिकों की जीवन में रहने वाले समस्याओं के बारे में मालूम होता है ।

हिन्दी साहित्य का इतिहास

1.ज्ञानाश्रयी शाखा –इस शाखा के कवियों के बारे में और उनके रचनाओं के बारे और उनकी भक्ति के बारे में और ज्ञानाश्रयी शाखा में कबीरदास का स्थान के बारे में मालूम होता है।

2.प्रेमाश्रयी शाखा –इस शाखा के कवियों के बारे में और उनके रचनाओं के बारे और उनकी भक्ति के बारे में और प्रेमाश्रयी शाखा में जायसी के स्थान के बारे में मालूम होता है ।

డిగ్రీ మూడవ సెమిస్టర్లోనితెలుగు పాఠ్యాంశాలు – విద్యా విలువలు

- డా. పి.వి.లక్ష్మణరావు, తెలుగు సహాయ ఆచార్యులు, ఏ.పి.ట్రిపులైటి,

రాజీవ్ గాంధీ వైజ్ఞానిక సాంకేతిక విశ్వవిద్యాలయం, నూజివీడు,

కృష్ణాజిల్లా-521202, మెయిల్ - laxman009@rguktn.ac.in

ప్రవేశిక:ఒక వ్యక్తి తన జీవితాన్ని ఆదర్శవంతంగా కొనసాగించటానికి విలువలతో కూడిన విద్య సహాయపడుతుంది. విలువలతో కూడిన విద్య మతం, కులం, దేశం, జాతి వివక్ష, స్త్రీ, పురుష భేదాలను సంకుచితం చేస్తుంది. చెడు నుంచి మంచి అంశాలను విడదీసి చెప్పేవే విలువలు. మనం జీవిత లక్ష్యాలు ఏర్పరుచుకోవటానికి, మరియు నైతికంగా ఆదర్శవంతంగా ఉండటానికి ఈ విలువలు దోహదపడతాయి. రెండు విభిన్న లక్ష్యాలలో ఒక దానిని ఎంచుకోవలసి వచ్చినప్పుడు ఈవిలువలు తోడ్పడతాయి.మానవుడు సమాజంలో ఆదర్శ ప్రాయంగా జీవించేందుకువిద్యావిలువలు ఎంతగానో తోడ్పడతాయి.

జీవిత లక్ష్యాలను సాధించే ప్రయత్నంలో వ్యక్తి చేష్టలను నడవడిక తెలియచేస్తుంది, మంచి నడవడిక గల వ్యక్తిలో ఉన్నతమైన విలువలు ఉంటాయి.వ్యక్తులు తమ నిజ అవసరాలను మరియు విలాసాలనువిడదీసి చూడగలిగినప్పుడే శాంతియుతంగా జీవించగలుగుతారు. అలానేఎల్లప్పుడూ సత్యం పలికే వ్యక్తి మానసికంగా బలవంతుడుగా ఉండగలుగుతాడు.అసత్యం లేదా అబద్ధాలుపలికేవారు,వినేవారు అయోమయానికి గురి అవుతారు. అసత్యాలు మనిషికి బాధించటమే కాక వారిలో విశ్వసనీయత సన్నగిల్లేలాచేస్తుంది. ఇలాంటి ఎన్నెన్నో విద్యా విలువలతో కూడిన అంశాలతోరూపొందించిన డిగ్రీ మూడవ సెమిస్టర్లోనితెలుగు పాఠ్యాంశాలను విశ్లేషించడమే ప్రస్తుత వ్యాసోద్దేశం.

డిగ్రీ పాఠ్యాంశాల్లో మూడవ సెమిస్టర్లోని పద్యభాగంలోని మొదటి పాఠం అయిన **'వామనావతారము'** **బమ్మెర పోతనామాత్యునిచే** రచించబడిన శ్రీమదాంధ్ర మహాభాగవతంలోని అష్టమ స్కందం నుంచి గ్రహించబడింది. భాగవతంలోని ప్రముఖ కథల్లో ఇది ఒకటి. పూర్ణ కాముడైన, లక్ష్మీ సహితుడైన విష్ణువు బలిచక్రవర్తిని మూడు అడుగుల నెల

ఎందుకు కోరాడో, తప్పు ఏమీ లేకుండానే పుణ్యాత్ముడైన బలిని విష్ణువు ఎందుకు బంధించాడో ఈ కథ ద్వారా తెలుస్తుంది. బాగా బ్రతికినా, అనేక కష్టాలకు గురైనా, పేదరికం వచ్చినా, ప్రాణానికీ, ధనానికీ చేటు వచ్చినా చివరకు మరణమే సంభవించినా ఇచ్చిన మాటను తప్పకూడదనే ధర్మాన్ని తెలిపే ఈ కథలోని రాక్షస చక్రవర్తి (బలి) జీవిలోని రజస్తమో గుణాలకు ప్రతీక. ధ్యాననిష్ఠతో జ్ఞానప్రాప్తికి చేసే ప్రయత్నమే బలి చేసిన యాగం, తన లోని శుద్ధ చైతన్యానిని ఆశ్రయించటమే వామనుని రాక.

జీవిలోని చైతన్యస్థానం యొక్క పరిమాణం ఉపనిషత్తులలో అంగుష్ఠమాత్రంగా వర్ణించబడింది."జీవి అంతర్భాగంలో అంగుష్ఠమంత ప్రమాణంలో "అధిపురుషుడు" జీవుల భూతభవిష్యత్తులకు నిర్దేత. ఇది తెలిసిన వాడు (ఏ విషయమై కూడా) జాగ్రత్త పడడు(ఆందోళన చెందడు). అదే తెలియదగినది!"వామనునికి దానం ఇవ్వటం అహంకారత్యాగానికి సంకేతం.(అందుకే ఆ చక్రవర్తికి కూడా బలి అన్న పేరు పెట్టబడిందేమో!). అసంపూర్ణజ్ఞానం (మనం చదివిన, నేర్చుకున్నశాస్త్ర విజ్ఞానం) మనను సత్యాన్వేషణను ముందుకు సాగనివ్వకుండా అడ్డపడుతుంది, సాధకుడు ఆ ప్రయత్నానికి లొంగిపోకూడదు. కథలో శుక్రాచార్యుని విఫలప్రయత్నం మనకందరికీ తెలిసిందే కదా!!

తనలోని ఆ శుద్ధచైతన్యమే భూమిపై వున్న సకలచరాచర ప్రకృతి అనే అనుభూతి కలగటమే వామనుడు మొదటి అడుగుతో భూమిని ఆక్రమించటం.అగోచరమైన విశ్వానికీ ఆలంబన అదే అనీ తెలుసుకోవటమే వామునుడు రెండవ అడుగుతో అంతరిక్షాన్ని కొలవటం పెనుక అంతర్ధం.బలి చక్రవర్తి పాతాళానికి అణగదొక్కబడటం (మూడవ అడుగు) అహంకార అజ్ఞాన నివృత్తిని, అస్తిత్వభ్రమ తొలగిపోవటాన్ని తెలియచేస్తున్నది.

శాలివాహన విజయం - కొరవి గోపరాజు: కొరవి గోపరాజు రచించిన రమణీయ కావ్యం సింహాసన ద్వాత్రింశిక. ఇది సంస్కృతంలోని విక్రమార్క్గచరిత్రకు అనుసరణ. మూలానికి కొన్ని కథలను చేర్చి గోపరాజు అద్భుతంగా తీర్చిదిద్దారు. గోపరాజు 15వ శతాబ్దివాడని సాహితీ చరిత్రకారుల

అభిప్రాయం. భోజరాజు విక్రమార్కుని సింహాసనాన్ని అధిరోహించాలని చేసే ప్రయత్నంలో ప్రతిరోజు ఒక్కొక్క సాలభంజిక భోజనికి చెప్పిన కథలే సింహాసన ద్వాత్రింశతిగా రూపొందాయి. సింహాసనాన్ని ఎక్కదలచిన ప్రతిసారీ ఒక్కోసాలభంజిక విక్రమార్కుని దానగుణాన్ని, పరాక్రమాలను, బుద్ధికుశలతను, ఔదార్యాన్ని, సాహసాలను వివరిస్తూ ఆ గుణాలు నీకులేవని మరలిపొమ్మని భోజడ్ని నిలదీస్తాయి సాలభంజికలు.

కథాసాహిత్యం మానవ సంపూర్ణ వ్యక్తిత్వవికాసానికి దోహదం చేస్తున్నమాట సత్యదూరం కాదు. అందుకు నిదర్శనంగానే కథాప్రక్రియ దినదినప్రవర్ధమానం చెందుతూ ఉన్నది. వ్యక్తిత్వ వికాసనిర్మాణంలో కథలు తమవంతు పాత్రను పోషిస్తాయని గ్రహించవచ్చు. సింహాసన ద్వాత్రింశతిలోని కథల ఆధారంగా మానవస్వభావం గురించి, వ్యక్తిత్వవికాసం అనే దృక్పథంతో పరిశీలించడం ప్రస్తుతాంశం. పరమేశ్వరుడు పార్వతీదేవికి చెటుతున్నట్లుగా ప్రారంభమైన ఈ గ్రంథంలో ముప్పైరెండు కథలున్నాయి. సంస్కృతాంధ్ర భాషల్లో పండితుడైన గోపరాజు ఈ కావ్యంలో విక్రమార్కుని పరాక్రమశాలిగా, రాజనీతి కలవానిగా, దాన ధర్మ గుణశీలిగా, కళావిధునిగా పాత్రచిత్రణ చేశారు. రంభా-ఊర్వశుల నాట్యాన్ని చూసి వారిద్దరిలో విజేత ఎవ్వరో నిర్ణయింపగలిగిన నాట్య పరిచయం అతనికి విక్రమార్కునికే ఉన్నది. తనకు కీడు కలుగుతుందని తెలిసి ఆ అపాయాన్ని తప్పించుకోవడానికి ప్రయత్నించాడు. అసమాన సాహసాన్ని ప్రదర్శించినా విధి వ్రాత తప్పించుకోలేకపోయాడు.

సకల మానవ కళ్యాణానికి తోడ్పడగల బుద్ధిని చిన్ననాటినుండే పసి హృదయాలలో నిక్షిప్తం చేయగల సకలసామర్థ్యం కలిగి ఉన్నాయనడంలో అతిశయోక్తిలేదు. భావనా బలం చాలా గొప్పది. భావనను బట్టే సిద్ధి కలుగుతుంది. అటువంటి సిద్ధి పొందడానికి సంకల్ప బలం కావాలి. సడలని సంకల్పాన్ని ఏర్పరుకోవాలంటే స్థిరచిత్తాన్ని కలిగి ఉండాలి. ఈ కథలను పిల్లలను అందుకు అనుగుణంగా తయారు చేయగలవు.

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హరిజన శతకం- కుసుమ ధర్మన్న:'ఆత్మ గౌరవంటు నలరంగ చాటరా' అని ఉద్బోధించిన ధర్మన్న కవిగారు వర్ణధర్మం పేరిట భారతీయ సమాజంలో నెలకొని ఉన్న హెచ్చు తగ్గులను నిరసించిన జాతీయ వాది. సమకాలికులు ఆయనను 'ఆది ఆంధ్ర కవి సార్వభౌమ'గా పేర్కొన్నారు.పదవులు ఆశించకుండా ఆది ఆంధ్ర సంఘాలకు సలహాలిస్తూ వారంతా సమైక్యంగా ఉండటానికి కృషి చేశారు.కాంగ్రెస్లో ఉంటూనే 'మాకొద్దీ నల్లదొరతనము'అంటూ గళం విప్పిన ధైర్యశాలి. రాజమండ్రి తాలూకా బోర్డుకు కాంగ్రెసు పార్టీ తరపున సభ్యునిగా ఎన్నికై కూడా బోర్డు ప్రెసిడెంటు ఎన్నికలో ఆ పార్టీ అభ్యర్థికి ఓటు చేయని స్వతంత్రుడు ఆయన.

అంబేద్కర్ గురించి ఆంధ్రదేశంలో మొదట ప్రచారం చేసింది వీరే.నిమ్న జాతుల అభివృద్ధి విషయంలో గాంధీ ఆశయాలను నమ్మి గౌరవించినా ఆచరణలో లోపాలను ధర్మన్న గారు సహించే వారు కాదు. గాంధీ గారు ఆంధ్ర రాష్ట్ర పర్యటనలో భాగంగా రాజమండ్రి వచ్చి హరిజన నాయకులతో సమావేశం నిర్వహించిన సందర్భంలో ధర్మన్న గారు ఆ సమావేశాన్ని బహిష్కరించారు. 'హరిజన నాయకులైతే మా పేటలకు వచ్చి యిక్కడ మాట్లాడాలని'కబురుపెట్టి గాంధీగారినీ, ఇతర కాంగ్రెస్ నాయకులను తమ పేటకు రప్పించి, ఆతిథ్యమిచ్చి తమ గౌరవాన్ని చాటుకొన్నారు.జాతి చైతన్యం కోసం వారు పడిన తపనను ఈ హరిజన శతకం ద్వారా తెలుసుకోవచ్చు.

రాయప్రోలు సుబ్బారావు - సంక్రాంతి సంబరము:రాయప్రోలు వారి కవిత్వాన్ని గురించి ఒక్క మాటలో చెప్పాలంటే.. శేషేంద్ర శర్మ గారి మాటల్లో 'ఆయన పద్యాలే మంత్రాలుగా జపించు కొంటూ వాటి మద్య మాధురిలో మునిగిపోయి, మళ్ళీ పునర్జన్మ లేనట్లుగా మనిషి తరించి పోవచ్చు'. రాయప్రోలు సుబ్బారావుతో తెలుగులో అభినవ కవిత ఆరంభమయింది. వేణుగానం లోని లాలిత్యము, మృణాళ కాండం (తామర తూడు)లోని సౌకుమార్యము, ద్రాక్షరసం లోని మాధుర్యము తన అభినవ కవితా మార్గానికి క్రొత్త రుచిని సమకూర్చినట్లు రాయప్రోలు అన్నారు. ఆయన ప్రకృతిని ఉపాసించటానికి సాహిత్యాన్ని ఆలంబనంగా గ్రహించారు. ఆచార్య రాయప్రోలు సుబ్బారావు గారు తమ కవితా జ్యోతితో సాహిత్య రంగాని

తేజోవంతం చేశారు. అనేకమంది నవ కవులకు మార్గదర్శకులైనారు. రాయప్రోలు వారి 'మిశ్రమంజరి' అనేది 54 కవితలతో కూడిన ఖండ కావ్యం. ఈ ఖండ కావ్యంలోని సంక్రాంతి సంబరము అనేది పార్శ్వభాగం ద్వారా తెలుగు వారి సాంఘిక జీవనంలో పండుగలకు ఎంతగా అత్యంత ప్రాముఖ్యత ఉన్నదో తెలుస్తుంది. ఆంధ్రదేశంలో సంక్రాంతి, ఉగాది, నవరాత్రి, విజయదశమి, ఈ పర్వదినాల వైపు ఆకర్షితులు కాని కవులు చాలా అరుదు. తెలుగు దనం అభిమానించి, ఆరాధించు రాయప్రోలు వంటి వారికి నోములు, వ్రతాలు, పండుగలు వారి సామాజిక దృక్పథాన్ని వ్యక్త పరచుటకు సందర్భాలను కలిపిస్తాయి. అందుకే ఆసమయాల్లో వారు దర్శించిన అనుభూతులను కవితా ఖండికల రూపంలో మన ముందుంచారు. 'మిశ్రమంజరి' కావ్యంలో పండుగలను పురస్కరించుకొని వ్రాసిన కవితలు పొందు పరచారు రాయప్రోలు వారు. కవితల లోని వర్ణనలు తెలుగు దేశాన్ని అద్దం పట్టి చూపిస్తాయి.

తెలుగు భాష – ఆచార్య గుజ్జర్లమూడి కృపాచారి: ఈ వ్యాసరచయిత 33 వసంతాలు ఆచార్య నాగార్జున విశ్వవిద్యాలయంలో అనేక హోదాల్లో పనిచేశారు. దేశభాషలందు తెలుగు లెస్స అని రాయలచే కీర్తి గడించిన భాష తెలుగు. తెలుగు జాతి చాలా పురాతనమైనది. తెలుగు నేల ఐతిహాసికమైనది. తెలుగు భాష అతి దీర్ఘ చరిత్ర గలది. తెలుగు భాష ఔన్నత్యాన్ని నేటి యువతకు తెలియజేయడానికి, తెలుగు భాష ప్రాచీనతను తెలియజేయడంతో పాటు తరతరాల తెలుగు భాషకున్న సాహిత్య విలువలు కూడా ఈ వ్యాసంలో తెలియజేశారు. తెలుగు జాతి ఉనికిని, భాషా సౌందర్యాన్ని ఈ వ్యాసంలో వివరించారు. తెలుగు భాష కలకాలం వర్ధిల్లడానికి చేయవలసిన సూచనలు ఈ వ్యాసంలో విశ్లేషించారు. తెలుగు భాష పాలనా భాషగా అమలు చేయడానికి కావలసిన సూచనలు ఈ వ్యాసంలో వ్యక్తం చేయబడ్డాయి.

వ్యక్తిత్వ వికాసం- ఆచార్య రాచపాళెంచంద్రశేఖర రెడ్డి: రాచపాళెం చంద్రశేఖర్ రెడ్డి ప్రముఖ రచయిత, విమర్శకులు. 2014 సంవవత్సరానికి వీరికి కేంద్ర సాహిత్య అకాడమీ పురస్కారం లభించింది.వ్యక్తిత్వాన్ని ఎలా రూపుదిద్దుకోవాలో, వ్యక్తిత్వ రూపకల్పనలో ఏఏఅంశాలు ప్రాధాన్యతను సంతరించుకుంటాయోఅందులో మీ పాత్ర ఏమిటోతెలిపేఈ రచనని పాఠ్యాంశంగా

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నిర్ణయించడమైంది. నేటి యువతరానికి వ్యక్తిత్వ వికాసం యొక్క ప్రాధాన్యతను సులభమైన శైలిలో అందించే ఈ పాఠ్యభాగం విద్యార్థులు తమ జీవితాలను ఉన్నతంగా తీర్చిదిద్దుకునేందుకు ఎంతగానో ఉపయోగపడుతుంది. ఎందుకంటేఈనాటి సమాజంలో పర్సనాలిటీ డెవలప్'మెంట్అన్న దానికి ఇస్తున్న ప్రాధాన్యత అంతా ఇంతా కాదన్నది జగమెరిగిన సత్యం.

వ్యాకరణ దర్శనము:శిక్షా వ్యాకరణం ఛన్ద: నిరుక్తం జ్యోతిషం తథా! కల్ప్శ్చేతి షడంగాని వేదస్యాహుర్మనీషిణ:. 'వేదస్య ముఖమ్ వ్యాకరణం స్మృతమ్'అనటం ద్వారా షడంగాల్లో వ్యాకరణం శిరస్థానీయమని చెప్పినట్లయింది.భాష లక్ష్యం అయితే వ్యాకరణం లక్షణం. లక్షణమెప్పుడూ లక్ష్యాన్ని అనుసరిస్తుంది. లక్ష్యం లేనిదే లక్షణానికి అవకాశమే లేదు. కాలం మారుతోంది. అవసరాలు మారుతున్నాయి. వ్యాకరణమైనా,భాషాసాహిత్యాలైనా స్థలకాలాలకు అతీతమైన అమూర్త విషయాలు కావు. కాబట్టి ఈ రోజున వ్యాకరణ ప్రాభవం క్షీణించి భాషాశాస్త్ర వెలుగులో నూతనమార్గాలు అన్వేషిస్తున్న వర్తమానం ఇది. ఇలాంటి పరిస్థితుల్లో ఎన్నో ప్రయోజనాలు కలిగిన వ్యాకరణ శాస్త్ర ఆవశ్యకతని, వేదపురుషునికి పాదాల్లాంటిఛందస్సు, కావ్యకన్యకి నిండుదనాన్ని కల్పించే అలంకారాలనే ఆభరణాల గురించి నేటి తరానికి అవగాహన కలుగజేయడమే లక్ష్యంగా పాఠ్యంశాలుగా రూపొందించారు.

ఉపసంహారం:ఎస్నెన్నో విద్యాత్మకవిలువలతో కూడిన సాహితీఅంశాలతో రూపొందించిన డిగ్రీ మూడవ సెమిస్టర్లోనితెలుగు పాఠ్యంశాలనుసవివరంగా విశ్లేషణ చేయడం ద్వారా విద్యార్థినీ విద్యార్థులకు తెలుగు సబ్జెక్టు ద్వారా కలిగే ప్రయోజనాలను విడమరచి చెప్పినట్లవుతుంది. దాని వలన తెలుగు భాషా సాహిత్యాల పట్ల మక్కువ కలగటంతో పాటుగా పాఠ్యంశాలనుసులభంగా అవగాహనచేసుకునే విధానాలు కూడా అలవడతాయనడంలో ఏమాత్రం అతిశయోక్తి లేదు.

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Program Outcomes and Course Objectives in Information Technology

By

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UNIVERSITY OF OKLAHOMA

Founded in 1890, the University of Oklahoma is a public research university located in Norman, Oklahoma just 20 minutes south of Oklahoma City. When OU's first president David Ross Boyd stepped off the train in Norman, Oklahoma, in 1892, he was greeted with a barren expanse of prairie, no tree in sight. His only remark at this sight was *"What possibilities!"* At the University of Oklahoma, we have that same spirit: anything can grow if you have the drive to make it so. OU's Norman undergraduate population is slightly more than 20,000, giving students a major university experience in a private college atmosphere.

Campus Life & Community

The Sooner Family embodies compassion, honesty, fairness, and civility. No matter your interests, with over 400 organizations, amazing campus events, incredible athletics programs, and Sooners from all backgrounds, there's something here for you. Our main campus is very walkable and we take a lot of pride in its beauty. We're also part of a close-knit community in Norman, OK and only 20 minutes away from a growing Oklahoma City.

Price College of Business

The Price College of Business is the largest and most selective professional school at OU accepting students on a competitive basis. The Management Information Systems (MIS) Division program is one of the fastest growing majors in the college with over 300 majors and 130 capstone students per year. The graduate program in Management Information Technology has about 90 current students and was recently ranked among the top 20 Business Analytics programs in the country. The undergraduate program was ranked 36th nationally. Division faculty are globally recognized for their scholarship with their research publications for the last 3 years in major MIS journals ranking among the top 20 business schools nationally and globally. Faculty are successful in attracting research grant funds from federal and local agencies. Faculty hold senior editorial positions in the premier journals, i.e., MIS Quarterly, Information Systems Research, and the Journal of the Association for Information Systems. They also serve in leadership roles, i.e., program chairs, track chairs, for their major information systems conferences.

Program Outcomes and Course Objectives in Information Technology, OU, Norman, Paper Submitted to the National Level Workshop on Outcome Based Education (OBE) – Possibilities and Challenges (Under Assistance of UGC Autonomous Grant) on 22nd November 2019, By SwethaSiripurapu.

MIS is a professional program that thrives on close collaboration with business partners. Organizations can connect with the program in several ways:

- Centre for MIS Studies (CMISS) member
- Scholarship sponsor
- Field Project Client

MS in Management of Information Technology (With Analytics Core)

Program Description (STEM Program)

The Master of Science in Management Information Technology (MS-MIT), a STEM program, emphasizes Big Data and Analytics, with applications to Business, Cybersecurity, Health and related areas. Through this value-priced program, students develop technical and analytical skills, as well as their business process knowledge, that will enable them to identify organizational benefits from Data and Information Technology.

As indicated in curriculum, the MS-MIT program offers a gamut of courses on applied organizational aspects of Big Data and Analytics with several choices available. Our course topics include enterprise data modeling, enterprise data analytics with enterprise systems, business intelligence, social analytics, visual analytics, data science, predictive modeling, database design, data warehousing, advanced database technologies, cloud computing, distributed file processing systems, advanced analytics programming, project management, business infrastructure and cyber security. Popular analytics software and tools will be taught and students will conduct projects using these tools. Additionally, workshops and facilities to obtain industry certification, such as from SAP and SAS, are available.

The MIS division has an active academia-business partnership through the Center for Management Information Systems Studies (CMISS), and students have opportunities to interact with Information Technology executives, and gain from their experience. The division facilitates student scholarships, internship and job placement opportunities. Recent placements include organizations such as PCI, Loves Travel Stops, AT&T, MSCI, Marlabs, and Chickasaw Nation.

Master of Science in Management of Information Technology

Catalog (Admission in Fall and Spring Semesters)

The MS-MIT program requires a minimum of 32 graduate-level hours. Students are required to take the following core information technology courses plus a total of 26 hours of graduate-level electives including a minimum of 13 hours of MIT electives. Students may complement the MIT electives with business electives.

Degree Notes

The MS-MIT degree can be completed in 3 (three) semesters.

Program Outcomes and Course Objectives in Information Technology, OU, Norman, Paper Submitted to the National Level Workshop on Outcome Based Education (OBE) – Possibilities and Challenges (Under Assistance of UGC Autonomous Grant) on 22nd November 2019, By SwethaSiripurapu.

Students have up to 5 (five) years to complete the degree.

Evening courses are available for students to pursue the MS-MIT degree on a part-time basis.

For more course information, please refer MIS Division Course Catalog (PDF) - http://www.ou.edu/content/dam/price/MIS/files/MIS%20Course-Descriptions-June-2016.pdf

Explanation of Course:

The word "course" refers to a subject taken during a semester with a certain number of prescribed classes each week. Successful completion of a course usually earns a specified number of semester hours of credit toward a degree. The words "curriculum" or "program of study" refer to an organized plan of work composed of a number of courses.

Class Attendance:

Class attendance is important because a teacher will discuss/clarify concepts and examples that may or may not be in the textbook. So the student is responsible for everything that is announced in class, independent of whether he/she chooses to attend or not. Graded quizzes / questions / assignments will be given in class. Students who do not attend will not be able to get credit for these assignments.

Examinations:

There will be one mid-term examination each semester. In addition, a final exam will be conducted on the scheduled date for each semester.

Mission, Objectives and Student Outcomes

As per the requirements of the Accreditation Commission we have published the Mission Statement, Student Outcomes and Program Educational Objectives.

MISSION

Through a community of scholars committed to excellence in research and teaching, our mission is to provide our students with the technical education and critical thinking skills needed to lead the country in addressing the complex infrastructure and environmental problems facing today's society.

Course Objectives

This class combines a variety of techniques to capture student interests from several possible angles. The readings and lectures provide a base of knowledge that students can use in other components of the course, future course work, and future career. In-class exercises provide an avenue for applying the knowledge base. Guest lectures provide further opportunity for discovery of how the material covered in class applies in everyday business life. This approach only works when students

complete the readings prior to class and then participate in the exercises and discussions in class.

<u>Some of our division highlights include the following:</u>

An MIS **undergraduate program** with a history of excellent placement record and high starting salaries for students.

A nationally ranked **graduate program** with emphasis in Business Analytics and a doctoral program with a good placement record.

World-renowned faculty, who have earned teaching and research awards, serve on major MIS journal editorial boards, and obtain externally funded grants. As per the University of Texas Dallas ranking of business school research, MIS division publication for the last three years in major MIS journals ranks among the **top 20 business schools nationally and globally.**

Scholarships are awarded every year to meritorious students from donations by companies and individuals. In 2019, over $100,000 in scholarship money were awarded to 85 students, with each individual scholarship ranging from $1000 to $5000.

An **active industry-academia partnership** through the Center for MIS Studies, Member companies collaborate with faculty, support student recruiting and development. Please see some of our member companies at: http://www.ou.edu/price/mis/cmiss/membership

MIS student association is an active social and study group that is also a student chapter of the Association of Information Systems.

Programs and faculty have been **nationally ranked** with the Graduate program currently ranked in the Top 20 graduate programs in Business Data Analytics in the country, by The Financial Engineer Times (TFE), and the MIS undergraduate programs have been ranked among the Top 20 programs in the nation by *US News and World Report.*

PROGRAM OUTCOMES:

Program Outcomes describe what students are expected to know and be able to do by the time of graduation. They include:

(1) An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.

(2) An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.

(3) An ability to communicate effectively with a range of audiences.

Program Outcomes and Course Objectives in Information Technology, OU, Norman, Paper Submitted to the National Level Workshop on Outcome Based Education (OBE) – Possibilities and Challenges (Under Assistance of UGC Autonomous Grant) on 22nd November 2019, By SwethaSiripurapu.

(4) An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

(5) An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

(6) An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.

(7) An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Course Outcomes:

By the end of a course the students will be able to:

➤ Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

➤ Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.

➤ Communicate effectively in a variety of professional contexts.

➤ Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.

➤ Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

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మనపాఠంమనకువెలుగు

సి.హెచ్. శ్యామల కుమార్

ఏ.జి.కే.యం. డిగ్రీ కళాశాల

సత్తెనపల్లి,గుంటూరుజిల్లా

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తెలుగు వెలుగులు విరజిమ్మల నేతపనలేని తెలుగు వాడు వుండకూడదంటారు మన సాహితీకారులు. భావి తరాల బ్రతుకు బాటకే కాదు ప్రగతిబాటకూ తెలుగు సాహిత్యం నూతన ఒరవడిని దిద్దాలనే తపన మనకు కనిపిస్తుంది. నన్నయ నుండి నేటి వరకు సాగిన ఈ అనంత సాహితీ మదనంలో ఎన్నో కావ్యాలు, గ్రంథాలు, ప్రబంధాలు, రచనలు, వివిధ ప్రక్రియలు నిరంతర ప్రవాహంగా సాగుతూనే ఉన్నాయి.

ఆ కవిత్వం నుండి మానవుని మనుగడకు అవసరమైన ఎన్నో అంశాలను మనం ఎప్పటికప్పుడు ప్రోది చేసుకుంటూనే ఉంటాం. అందులో నుండి నేటియువతకు ఎంతో మేలు జరగాలని ఎన్నో ప్రాచీన, ఆధునిక అంశాలను తెలుసుకోవాలనే ఆలోచనలతో స్నాతక (డిగ్రీ) విద్యస్థాయిలో కృష్ణా విశ్వ విద్యాలయం వారు రూపు దిద్దిన పార్యాంశాలు విద్యార్థులకు నూతన ఆలోచనలను, జీవితసత్యాలను, విలువలను, నైతికతను, మానవసంబంధాలను, దేశభక్తిని, సామాజికబాధ్యతలను, కుటుంబజీవనాన్ని, దైవశక్తిని, జీవితం పట్ల అనురక్తిని కలిగించి కొత్త వెలుగుతో కొత్త జీవితాన్ని వొందే సువర్ణ అవకాశం కల్పించాయి.

మొదటి సెమిస్టర్ లో నన్నయ భారతం నుండి తీసుకోబడిన **గంగా శంతనుల కథ** విద్యార్థులకు మహా భారతం గొప్ప తనాన్ని, రాజరికవ్యవస్థను, భగవంతుని తత్త్వాలను, కాలాలను, గంగా దేవి విశిష్టతను, ప్రేమతత్వం, ఋషి నాటికల గురించి, వసువు వలన జరిగిన దురాగతాల వల్ల మునులు బాధపడిన తీరు తెన్నులనుగమనిస్తే మనం ఎలా బ్రతకాలో తెలుస్తుంది, ఎలా నడుచుకోవాలోఅర్థమవుతుంది.

మన భారతావనిలో స్త్రీలను పూజిస్తాం, గౌరవిస్తాం. అలాంటి స్త్రీల పట్ల జరిగిన, జరుగుతున్నపరాభవాలు, అక్రమాలు, అరాచకాలకు ప్రతీకగా నిలిచిన పాత్ర ద్రౌపదిది. **ద్రౌపది పరిదేవనం** అనే పాఠం స్త్రీలకు గొప్ప సందేశాత్మకమైనది.

అదే కోవలో పురుషుల అరాచకత్వంతో బలైపోతున్న స్త్రీల దుర్భర జీవితాల గురించి వివరించే సందేశాత్మకమైన పాఠం గురజాడ **కన్యక.**

దేశ చరిత్రలు అనే పాఠంలో దేశ భక్తి మెండుగా యువతలోఉండాలనీ, ప్రతి ఒక్కరూ ప్రపంచ గతిని స్థితిని నిండుగా తెలుసుకోవాలని తాపత్రయపడిన మన కవి యోధుడు శ్రీశ్రీ. అభ్యుదయం ఊపిరిగా సాగించిన దేశ చరిత్రలు మన చరితలకు పునాది. నవ యవ్వన చైతన్యానికి నాంది.

కథలు చెప్పడం మన తెలుగు వారి సాంప్రదాయం. **చింతలతోపు, సావుకూడు** లో గ్రామీణ జీవన నేపథ్యాన్ని, విలువలను, రైతుల పరిస్థితులను, సాంఘికజీవితాన్ని, కరవుకాటకాలు, ఆచార వ్యవహారాలను ఎలుగెత్తి చాటిన పాపినేని, నారాయణ స్వామి మన క్రాంత దర్శులు.

రెండవ సెమిస్టర్ లో దైవ భక్తి బలంగా ఉంటే బలమైన మనస్తత్వం ఉంటుందని, భక్తికి సాధనం అవసరం లేదని, ఉపాసనచాలని, తారతమ్యాలులేని మనిషి జీవిత అంతిమలక్ష్యం **సాయుజ్యమే** అని అంటారు ధూర్జటి. మన భారతీయ సంస్కృతిలో అత్యంత విశిష్టమైన పెండ్లి ఆచారాన్ని, విధానాన్ని, పద్ధతులను, బంధుత్వాలు యువతి యువకులలో వుండే చక్కని జీవిత ఆలోచనలను చేమకూర **సుభద్రా పరిణయం** లో చూపారు.

అంటరానితనాన్ని అదిమితొక్కి అందలమెక్కించిన మేటి జాషువా కవి కలం **ఫిరదౌసిలేఖలో** ఎన్నో జీవిత సత్యాలను లిఖించింది. పేదవాడి ఆక్రోశాన్ని, ఉన్న వాడి దౌర్జన్యాలను ఖండించింది. ప్రకృతి ప్రసాదించిన వరం **చెట్టు** అని సత్యంగారు చెట్టు యొక్క ప్రాధాన్యతను చాటి చెప్పి పర్యావరణ హితకు ప్రగతికి మేలనిచాటారు.

నమ్ముకున్ననేల మన గ్రామీణ వ్యవసాయం అంతరించి, పరిశ్రమల వైపు వెళుతున్న స్థితిని, దేశానికి వెన్నెముక అయిన వ్యవసాయం వెనుకబడిపోతున్న విశ్వనాథ ఆవేదన కనిపిస్తే, రంగ నాయకమ్మ నశించిపోతున్న కుటుంబ వ్యవస్థను **అమ్ముకు ఆదివారం లేదా** లో ప్రశ్నించింది. స్త్రీలెప్పుడు పురుషుల క్రింద బానిసలేనా అని నిలదీసింది. **బతుకాట** నవలలో అంతరించి పోతున్న సాంప్రదాయ నాటక వ్యవస్థను రాసాని దృశ్య కావ్యంగా తీర్చి దిద్దరు.

మూడవ సెమిస్టర్ లో సహజ కవిపోతన **వామనావతారంలో** కలియుగంలో మానవులు మరచిపోతున్న ఎన్నో విలువలను గురించి చెప్పారు. మాటకు కట్టుబడి తన సర్వస్వాన్ని త్యాగం చేసిన బలి చక్రవర్తి సౌశీల్యం, గొప్పదనం, ఆడిన మాటకు విలువనిచ్చే వారి వ్యక్తిత్వం, దాన గుణం వంటి ఎన్నో విలువలు ఇందులో కనిపిస్తాయి. **శాలివాహన విజయంలో** కొరవి గోప రాజు విక్రమార్కుడు, శాలివాహనుడు వంటి యుగ పురుషుల గొప్పదనాన్ని, పరాక్రమాన్ని, విజయాలను, విశిష్టతను, యుద్ధనైపుణ్యాలను, రాజ్యపాలన, చతుర్విధ ధర్మ పరిరక్షణ వంటివి చూపారు.

కుసుమ ధర్మన్న సాగించిన సామాజిక సమర భేరి **హరిజన శతకం.** ప్రాచీన కాలంలో హరిజనులు గొప్ప వారని, విలువలతో జీవించారు అని, ఆనాడు మనుషులంతా సమానమేనని కుల, మత, వర్గ బేధాలు లేవని చాటారు. రాయ ప్రోలు సంక్రాంతి సంబరాలు చేశారు. మన గ్రామీణ జీవనం, ఆచారాలు, పంటలు, పాడిపరిశ్రమ, పల్లెటూళ్ళు, సాంప్రదాయాలు అలవోకగా వారి పద్యాలలో వికసించాయి. మనకు సందేశ మిచ్చాయి.

గుజ్జర్ల మూడి కృపా చారి గారు **తెలుగు భాషలో** మన తెలుగును కాపాడాలనే సందేశం నిజంగా మనలను ఆలోచింప జేస్తుంది. మనకు తెలియకుండానే ఆంగ్ల భాష పేరు పురుగులా మన తెలుగు భాషను

అంతం చేస్తుందని చెప్పి, తెలుగు భాష ఔన్నత్యాన్ని, ప్రాచీనతను తెల్పి, అందరం చక్కని భాష కోసం పాటు పడమనీ హితవు పలికారు.

ప్రతి మనిషికి వ్యక్తిత్వం అవసరమని, వ్యక్తిత్వం లేని మనిషి పశువుతో సమానమని రాచపాలెం వారు **వ్యక్తిత్వ వికాసం**లో ఇచ్చిన సందేశం చాలా గొప్పది. ఇది విద్యార్థులకు, అధ్యాపకులకు కూడా ఎన్నో జీవిత సత్యాలను నేర్పుతుంది.

ఈ విధంగా డిగ్రీలోని మూడు సెమిస్టర్లలోని పాఠ్యాంశాలలోని ప్రతిపాఠం యొక్క ఉద్దేశం, ఆంతర్యమొక్కటే. అది విద్యార్థులలో నూతన ఆలోచనలను కలిగించి జీవితం పట్ల శ్రద్ధ, భక్తి పెంచి తాము నేర్చుకున్న అంశాలను తమ జీవితంలో అన్వయించుకుని వారు చక్కగా సంపూర్ణ వ్యక్తులుగా తయారు అవ్వాలనే ఆకాంక్ష ఇందులో కనిపిస్తుంది. ప్రతి ఒక్కరూ ఆ దిశగా పాఠ్యాంశాలను బోధిస్తే, విద్యార్థులు చక్కగా అనుసరిస్తే అవి అందరికి గొప్ప జీవిత పాఠాలుగా నిలిచి ''**మన పాఠాలే మన వెలుగు**''ను ప్రసాదిస్తాయనేది నిజం, నగ్న సత్యం.

తెలుగు పదాల,సంస్కృతులగుబాళింపు

సుంకర గోపాలయ్య

తెలుగు ఉపన్యాసకులు

PR కళాశాల , కాకినాడ.

SEMESTER - I

1). గంగా శంతనుల కథ: గ్రాంథిక భాష పరిచయం

> నన్నయ శైలి ని తెలియజేయడం

> పద్యనిర్మాణ విధానం

> రసానుభూతి

> శబ్దజాలం పై అధికారం

> శీలనిర్మాణం తండ్రి కొడుకుల అనుబంధం, స్త్రీ పురుష సంబంధాలు .

2). ద్రౌపదిపరివేదన:

> తిక్కన రచనా శైలి

> ఆనాటి సమాజంలో స్త్రీల స్థితి గతులు

> తెలుగు పదాల గుబాళింపు

> పురుషాహంకారపు చిహ్నాలు

> పద్యంనడక, సొగసులు, కుటుంబ విలువలు, అన్నచెల్లెల అనుబంధాలు, కుటుంబ కలహాలు.

3). కన్యక:

> నాడు నేడుసంఘంలో స్త్రీల పై జరిగిన, జరుగుతున్న దాడులు

> లింగ వివక్షత

> పాలకుల అహంకారం

> నేటి సమాజంలో స్త్రీలెదుర్కొంటున్న సమస్యలు.

> డబ్బు అధికారం కల వాళ్ళ దుర్మార్గపు చేష్టలు, పీడిత ప్రజల ఆక్రందనలు.

SEMESTER - II

1). సాయుజ్యం:

> గ్రాంథిక భాష పరిచయం

> ధూర్జటి మాధురీ మహిమ తెలియ జేయడం

> పద్యనిర్మాణ విధానం

➤ రసానుభూతి శబ్దజాలం పై అధికారం

➤ మోక్ష భక్తి

➤ త్రిగుణాల పరిచయం

2). సుభద్రా కళ్యాణం:

➤ చేమకూర చమత్కృతి

➤ సాహిత్య అభిరుచిపెంపొందించడం

➤ శబ్దాలంకారాల చమత్కారం

➤ తెలుగు పద్య సొబగులు, తెలుగువారి వివాహాల్లోని సరదాలు సరసాలు విందు భోజనాలు,సాగానంపతాలు అలకలు .

3). ఫిరాధౌసి లేఖ:

➤ ఆధునిక పద్యం పరిచయం

➤ జాషువా కవిత్వ పరిమళం

➤ పాలకుల అహంకారం

➤ కవి గొప్పతనం

4). చెట్టు:

➤ పర్యావరణ పరిరక్షణలో చెట్టు పాత్ర, మనిషి చెట్టు నుంచి నేర్చుకోవాల్సిన పాఠాలు.

SEMESTER - III

1). వామనావతారం:

➤ గ్రాంథిక భాష పరిచయం

➤ పోతన రచనశైలి,

➤ పురాణాలలోని విశేషాలు

➤ రసానుభూతి

➤ శబ్దజాలం పై అధికారం

➤ దాన గుణం

➤ గొప్పతనం

➤ నైతిక విలువలు

2). శాలివాహన విజయం:

➢ ప్రాచీన పద్యం పరిచయం

➢ సాహిత్యఅభిరుచి పెంపొందించడం

➢ భాషా పరిజ్ఞానం అభివృద్ధి

3). హరిజన శతకం:

➢ శతక లక్షణాలుతెలుసుకుంటారు

➢ మానవ విలువలు

➢ దళితుల హక్కులు

➢ సమానత్వం

➢ జ్ఞాపక శక్తి

➢ కులాలు వాటి ప్రభావం, మతాలు వాటి ఉన్మాదం చాతుర్వర్ణ వ్యవస్థ పై అవగాహన.

4). సంక్రాంతి:

➢ తెలుగు వారి సంస్కృతిని సంప్రదాయాన్ని ఉట్టిపడేలా చేసే గొప్ప పండుగ సంక్రాంతి

5). తెలుగు భాష :

➢ భాసగొప్పతనం, అభిమానం , అన్ని రంగాల్లో తెలుగు అమలుకు ఉన్న సమస్యలు, సవాళ్లు

6). వ్యక్తిత్వ వికాసం:

➢ విద్యార్థి వ్యక్తిత్వాన్ని వికసింపజేసుకోవడానికి దోహద పడే అంశాలు, వ్యక్తిత్వాన్ని నాశనం చేసే అంశాలు రెండు అవగాహనకొస్తాయి.

పాఠ్యాంశాలు - సమాజపురోగతి

డా. చదలవాడవిజయకుమార్

తెలుగుశాఖాధ్యక్షులు

సి.ఆర్.కళాశాల, చిలకలూరిపేట

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ప్రణాళిక పరంగా విద్యా వ్యవస్థ ఒక దశ నుండి మరొక దశకు చేరుకోవడానికి పాఠ్యాంశాల రూపకల్పన ఎంతో ఉపకరిస్తుంది. ఈక్రమంలో చాలా మంది కి డిగ్రీ విద్య చాలా అవసరం. గతం నుండి వర్తమానం తరువాత భవిష్యత్తులో అడుగు పెట్టడానికి, పరిపక్వతెందడానికి, పరిపూర్ణత్వాన్ని, సమగ్రమైన అభివృద్ధిని, జీవన వి కాసాన్నిపొందడానికి డిగ్రీ విద్య వారధిగా ఉంటుంది. అయితే డిగ్రీ అనేది విద్యార్థికి ఒకకొలమానమేగాని అదే ముగింపు కాదు. తన విద్యా ప్రస్థానంలో ఎప్పటి కప్పుడు వికాసం చెందుతూ ఉండాలి. ఇదొక నిరంతర ప్రస్థానం. ఇదొక నూతన అధ్యాయం. డిగ్రీ విద్యలో విద్యార్థి తమ ఆలోచనలకు, ఆశయాలకు, సంకల్పానికి, లక్ష్యా నికి, తద్వారా నైతిక విలువలను కాపాడు కోవడానికి ఉపకరిస్తుంది. ఈ దశలో విద్యార్థిలో ఉండే సహజ సిద్ధమైన నైపుణ్యాలకు మెరుగులు దిద్దుకోవడానికి, తద్వారా లక్ష్యాన్ని చేరుకోవడానికి దోహదపడుతుంది. కాల క్రమేణా విద్యార్థి సమగ్రమైన వ్యక్తిత్వాన్నివృద్ధి చేసుకుంటూ నిర్ణయాధికారంతో సమస్యలను చేదించుకుంటూ ముందుకు పోవడానికి డిగ్రీ విద్య చాలా అవసరం. అందుకు పాఠ్య భాగాలు ఎంత వరకు విద్యార్థికి ఉపయోగకరమైనవిగా ఉన్నాయో అనుసీలించాల్సిన ఆవశ్యకత ఎంతైనా ఉంది.

తరాల వెంబడి తరాలు మూస పద్ధతిలోనే పాఠ్యాంశాలు ఉన్నాయే తప్ప విద్యార్థికి ఎంత వరకు ఉపయోగకరంగా ఉన్నాయో ఆలోచించడం లేదు. సాధారణంగా మన పాఠ్య భాగాలు విద్యార్థి వ్యక్తి గత, సామాజిక అస్తిత్వంతో పాటు సంస్కృతీ సాంప్రదాయలకు వారధిగా ఉండాలి. ప్రజల మధ్య ధృడమైన సంబంధాలను, అనుబంధాలను స్థిరపరచే విధంగా ఉండాలి. మారుతున్నసామాజిక,ఆర్థికపరిస్థితులకు అనుగుణంగా ఉండాలి. అలాగే పాఠ్యభాగాలు విద్యార్థుల మేధోవికాసానికి, సృజనాత్మకతకు, తర్కానికి దోహదపడే విధంగా ఉండాలి. అలాగే ఎప్పటి కప్పుడు పాఠ్యాంశాలు ప్రజాజీవనంతో ముడి పడి ఉండాలి. పాఠ్యాంశాల బోధన ద్వారా విద్యార్థి తనను సంస్కరించుకుంటూ యాయువేగంతో దూసుకు పోగల నైపుణ్యాలను అందించే విధంగా పాఠ్యాంశాల ఎంపిక జరగాలి.

సమాజంలో సభ్యుడిగా ఎదగడానికి అవసరమైన గుణ గుణాలను, మేధావులు అనుసరించిన పద్ధతులను వారి అనుభవాలను అందించే దిశగా పాఠ్య భాగాలుండాలి. తద్వారా అన డిగ్రీ విద్యా ప్రస్థానంలో జీవితంలో ఏమువ్వాలో ఏ ఏ అనుభవాలు ఉపకరిస్తాయో పాఠ్య భాగాలు అవగాహన కలిగించే విధంగా ఉండాలి.

అందువల్ల పాఠ్యభాగాలు వేలైనంత వరకు యదార్థత కలిగినవిగా ఉండాలి. అప్పుడే విద్యార్థి వ్యక్తిగత స్థాయి నుండి సామూహిక స్థాయిలోకి వెళ్ళడానికి వీలు కలుగుతుంది. అంతే కాకుండా విద్యార్థులు వారి వారి సొంత ఆలోచనలకు ప్రయోజనాలకు విలువ నిచ్చే విధంగా, స్వేచ్ఛనుకలిగించే విధంగా అవి ఎంత వరకు ఉన్నాయో జాతీయ సదస్సులతో పాటు చర్చించాల్సిన ఆవశ్యకత ఉంది.

ఆయా విశ్వ విద్యాలయాల పరిధిలో ఉన్నత విద్యా మండలి పాఠ్య పుస్తకానికి ముందుమాటలో "బాష పట్ల గౌరవం, సాహిత్యం పట్ల అభిలాష, సమాజం పట్ల అవగాహన, చరిత్ర సంప్రదాయల పట్ల ఆసక్తి ఉన్నత విలువలు నేర్పడం ప్రధానాంశాలుగా ఎంపిక చేయబడినాయి" అని వ్రాసారు. నిజంగా పాఠ్యాంశల ద్వారా విద్యార్థులు వీటి ద్వారా ఆశించిన స్థాయిలో లబ్ధిని పొందుతున్నారా? ప్రభుత్వ ఎయిడెడ్ కళాశాలల్లో తప్ప కార్పోరేట్ కళాశాలల్లో పాఠ్యాంశల ఉనికే ప్రశ్నార్థకంగా ఉందనే సత్యాన్ని అందరం అంగీకరిస్తున్నదే.

డిగ్రీ మొదటి సెమిస్టరులోని ప్రాచీన పద్యభాగంలోని గంగా శంతనులకథ, ద్రౌపది పరివేదనం పాఠాలను వినడానికి ఆసక్తి చూపక పోవడానికి భాషలోను, భావంలోను, కాలంలోను, వచ్చిన మార్పులే. గంగా శంతనుల కథ, ద్రౌపది పరివేదనంలో స్త్రీకి భావ ప్రకటనా స్వేచ్ఛ, అస్థిత్వాన్ని కాపాడుకోలేని నిస్సహాయత ఈ పాఠాల్లో కనిపిస్తుంది. ఆధునిక స్త్రీ సాధికారత తో విద్యార్థులకు ఇవి ఎంత వరకు ఉపయోగకరమైనవిగా ఉంటాయో చర్చ జరగాల్సిందే.

ఆధునిక విభాగంలోని గురజాడ రాసిన "కన్యక" గేయ కవిత కొంతమేరైన అవగాహన కలిగిన విద్యార్థుల అస్థిత్వాన్ని, అనాదిగా అధికారానికి, అంగబలానికి సమిధలై స్వేచ్ఛలేని జీవితాలను చైతన్య పరుస్తూనే సామాన్యులందరూ రాజుల్లాంటి వ్యక్తుల అహంకారానికి అధికారానికి లొంగరని, ఆత్మాభిమానం కంటే జీవితం ముఖ్యం కాదని తెగించి ఎదురొడ్డి ఆత్మాహుతికి తెగబడ్డ వీర వనితలు, వారందించే స్ఫూర్తి కన్యక గేయంలో కూస్త మనం చూస్తాం.

శ్రీ శ్రీ అన్న సాహిత్యమన్నా అందరికీ తెలిసిందే. నవ జీవన నిర్మాణం దానిని నిర్మించుకోవడానికి యువతరం గొరిల్లాలా ఉరక మంటాడు. అడ్డు వచ్చేదేనినైనా అధిగమించమంటాడు. అందువల్ల విద్యార్థులు సమస్య వచ్చినప్పుడు చేతులు ముడుచుకుని కూర్చోవడంకంటే ఉరకలెత్తే ఉప్పెనలా ఎగిసిపడమంటారు. కొంత వరకు ఈ "దేశ చరిత్ర లో" గత సమాజ నిర్మాణంలో అసువులు బాసిన సాధారణ ప్రజానీకం పోరాట స్ఫూర్తిని మననం చేసుకోవచ్చు. అలాంటి స్ఫూర్తి నవతరానికి మార్గ దర్శనం కాకపోల.

ఇక కథ విభాగంలో "చింతలతోపు" కథ గ్రామీణ కుటుంబాలు, వ్యవసాయ, లాభ నష్టాలతో పనిలేకుండా సాగు చేసుకుంటూ వెళ్ళడం, అప్పులు వచ్చినప్పుడు ఇతరుల పంచన చేరకుండా ఆత్మహత్యలకు పాల్పడడం ఇప్పటికీ చూస్తున్నాం. వీటికి గల కారణాలు, పట్టణ విద్యార్థుల కంటే గ్రామీణ ప్రాంత విద్యార్థులకు తెలయంది కాదు. అయితే వీటికి వెనుకాల ఉండే ఆర్థిక సామాజిక కారణాలను లోతుగా

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అధ్యయనం చేయడం వల్ల భవిష్యత్తుల్లో వాటి పట్ల మెలకువ కలిగి ఉండుటకు వీలుపడుతుంది. భర్త అడుగుజాడల్లో భార్య- ఆర్థికంగా యిబ్బందులు పడుతున్నా ఆ బాధను బయటకు తెలియనీకుండా స్త్రీలు తీసుకునే జాగ్రత్తలు యిలా ఎన్నో విష్యాలు కథల ద్వారా తెలుసుకోవడానికి వీలు పడుతుంది.

ఇక "సాపు కూడు" కథలో వివిధ మాండలికాలతో పాటు కరువుకాట్ల వల్ల ప్రజలు పడే యిబ్బందులు, చివరికి అవసాన దశలో కోర్కెలు తీరక భర్త చావడం – భర్త పోయిన దిగులు కంటే భోజనంలో మాంసపు ముక్కలేదని దెప్పి పొడవడాలులాంటి సంఘటనలు హాస్యంతో పాటు ప్రజల స్థితిగతులను అర్థం చేసుకోడానికి వీలుగా ఉంది. అంతటి ఆర్థిక లేమిలో కూడా కొడుకులు తండ్రి పట్ల బాధ్యత తో చేసిన మానవ సంబంధాలపట్ల ఉండే విలువలను తెలియజేస్తుంది. దీని వల్ల విలువలు కొరవడుతున్న ఈరోజుల్లో మానవ విలువలను బాంధవ్యాలను గుర్తు చేస్తూ బాధ్యత కలిగి ఉండమని బోధించడానికి ఉపయోగకరంగా ఉంటుంది.

మొత్తంగా పాఠ్యాంశాల ఎన్నిక బోధన విద్యార్థులలో అభద్రతను పోగొట్టేవి గా ఉండాలి. కష్టాల నుండి బయటపడే భరోసా అందించేవిగా ఉండాలి. సొంత ఆలోచనలతో, సొంత కాళ్ళపై స్వతంత్రంగా బ్రతికే విధంగా ధైర్యాన్నివ్వాలి. పారం పర్య పాఠ్యాంశాలు కాకుండా స్వయం నిర్ణయాధికారంతో నిర్ణయాలు తీసుకునేటట్లు ఉండాలి. చాలా మంది విద్యార్థులు ఆత్మ న్యూనతాభావం, మానసిక పరిపక్వత సమాజంలో మమేకమవుతూ అవకాశాలను అందిపుచ్చుకో గలిగే విధంగా ఉండాలి.

అలాగే కేవలం పాఠ్యాంశాలను బోధించడమే కాకుండా వారిలోని సృజనాత్మకతను గుర్తించి ప్రోత్సహిస్తుండాలి. దీని వల్ల స్వతహాగా ప్రసాదించిన తెలివి తేటలకు దెబ్బతగలకుండా తన ప్రతిభకు మెరుగులు దిద్దుకోవడానికి వీలుంటుంది. తద్వారా మంచి వ్యక్తిత్వంతో ఎదగగలుగుతారు.130 కోట్ల జనాభా గల మన దేశంలో నైపుణ్యం కలిగిన యువత అవసరం. అందువల్ల నైపుణ్యాలను అందించే పాఠ్యభాగాలను అందించడం వల్ల దశాబ్దాలుగా పట్టి కుదుపుతున్న సామాజిక, ఆర్థిక వలయాల నుండి అభివృద్ధి చెందిన దేశాలకు ధీటుగా మన దేశాన్ని నిలుపుకోవచ్చు. అందుకు మెరుగైన ఆలోచనలను అందించడానికి యిలాంటి జాతీయ సదస్సులు చేస్తున్న ప్రయత్నం కొంత మేరైనా ఫలించక పోదు.

ANALYSIS

analyze categorize compare contrast separate apply

APPLICATION

apply change choose compute demonstrate discover dramatize

arrange define describe duplicate

Assess Attach Choose Compare Conclude Contrast

categorize collect combine comply compose construct create

change discover choose compute demonstrate dramatize

COMPREHENSION

convert defend describe discuss distinguish estimate explain

create design hypothesize invent develop arrange assemble

Defend Describe Discriminate Estimate Evaluate Explain

design develop devise explain formulate generate plan

employ illustrate interpret manipulate modify operate

employ illustrate interpret manipulate modify operate

EVALUATION

explain summarize paraphrase describe illustrate classify

express extend generalized give example(s) identify indicate

identify label list match

infer locate paraphrase predict Recognize

Judge Justify Interpret Relate Predict

Judge Recommend Critique Justify Appraise Argue

KNOWLEDGE

memorize name order outline

practice predict prepare produce relate schedule

practice predict prepare produce relate schedule

prepare rearrange reconstruct relate reorganize revise

Rate Select Summarize Support Value

recognize relate recall repeat

reproduce select state

rewrite set up summarize synthesize tell write

rewrite review select summarize translate

show sketch solve use write

show sketch solve use write

Student appraises, assesses, or critiques on a basis of specific standards and criteria.

Student distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question

Student originates, integrates, and combines ideas into a product, plan or proposal that is new to him or her.

Student recalls or recognizes information, ideas, and principles in the approximate form in which they were learned.

Student selects, transfers, and uses data and   principles to complete a problem or task with a minimum of direction.

Student translates, comprehends, or interprets information based on prior learning.

SYNTHESIS

The student will compare and contrast the cognitive and affective domains.

The student will design a classification   scheme for writing   educational objectives that combines the cognitive, affective, and psychomotor domains.

The student will judge the effectiveness of writing   objectives using   Bloom's taxonomy.

The student will write an instructional objective for each level of Bloom's taxonomy.

The student will define   the 6 levels of Bloom's taxonomy of the cognitive domain.

The student will explain the purpose of Bloom's taxonomy of the cognitive domain.

use compute solve   demonstrate apply construct

Reference:

http://chiron.valdosta.edu/whuitt/col/cogsys/bloom.html

AKKINENI NAGESWARA RAO COLLEGE

(with Post-Graduate Courses)
Autonomous and Affiliated to Krishna University (Accredited by NAAC at A Level)
Aided College by Govt. of A.P. : : An ISO 9001:2015 Certified Organisation

<u>FEEDBACK FORM</u>

Your Name:

1	What is your designation (tick whichever is applicable)	Principal [ ] HOD [ ] Lecturer [ ] <u>Professor</u> [ ] <u>Associate</u> [ ] <u>Assistant</u> [ ]
2	a. Institution Name	
	b. Place:	
	c. Is your Institution?	Autonomous [ ] affiliated [ ]
3	Your Institution type?	Aided [ ] Self-financed [ ] Both A & SF [ ]
4	Location of your Institution	Urban [ ] Rural [ ]
5	Are you aware of the OBE?	Yes [ ] NO [ ]
6	If you are aware, How did you come to know about it? Through:	UGC [ ] APSCHE [ ] University [ ] Other Institutions [ ]
7	Do you think changes will be made under OBE to the existing syllabus?	Yes [ ] NO [ ] Can't say [ ]
8	Do you feel that under OBE the student's learning goals are clear?	Yes [ ] NO [ ] Can't say [ ]
9	Do you think OBE is helpful in planning your teaching?	Yes [ ] NO [ ] Can't say [ ]
10	Will Program and Course Outcomes in OBE enhance the quality of teaching and learning?	Yes [ ] NO [ ] Can't say [ ]
11	Will students find POs and Cos in OBE beneficial?	Yes [ ] NO [ ] Can't say [ ]
12	Do you think that a teacher's role changes in adapting OBE?	Yes [ ] NO [ ] Can't say [ ]
13	Do you think the student's learning experience will improve with OBE?	Yes [ ] NO [ ] Can't say [ ]
14	Will you able to get support from stake holders in implementing OBE?	Yes [ ] NO [ ] Can't say [ ]
15	Will it be easy in assessing a student under OBE?	Yes [ ] NO [ ] Can't say [ ]
16	Have you uploaded your outcomes on your college website?	Yes [ ] NO [ ] Can't say [ ]
17	Did this OBE workshop help you in understanding the concept?	Yes [ ] NO [ ] Can't say [ ]
18	Will OBE help students understand the focus of the course and the type of assessment?	Yes [ ] NO [ ] Can't say [ ]
19	Will OBE help recruiters / employers in selecting / recruiting the students?	Yes [ ] NO [ ] Can't say [ ]
20	Suggestions, if any:	

Signature

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<u>FEEDBACK FORM</u>

Your Name:

1	What is your designation (tick whichever is applicable)	Principal [6%] HOD [20%] Lecturer [61%] <u>Professor</u> [3%] <u>Associate</u> [-] <u>Assistant</u> [-]
2	a. Institution Name	
	b. Place:	
	c. Is your Institution?	Autonomous [80%] affiliated [20]
3	Your Institution type?	Aided [40%] Self-financed [10%] Both A & SF [50%]
4	Location of your Institution	Urban [25%] Rural [75%]
5	Are you aware of the OBE?	Yes [90%] NO [10%]
6	If you are aware, How did you come to know about it? Through:	UGC [75%] APSCHE [20%] University [4%] Other Institutions [1%]
7	Do you think changes will be made under OBE to the existing syllabus?	Yes [60%] NO [20%] Can't say [10%]
8	Do you feel that under OBE the student's learning goals are clear?	Yes [70%] NO [20%] Can't say [10%]
9	Do you think OBE is helpful in planning your teaching?	Yes [75%] NO [20%] Can't say [5%]
10	Will Program and Course Outcomes in OBE enhance the quality of teaching and learning?	Yes [70%] NO [20%] Can't say [10%]
11	Will students find POs and Cos in OBE beneficial?	Yes [13%] NO [1%] Can't say [-]
12	Do you think that a teacher's role changes in adapting OBE?	Yes [13%] NO [-] Can't say [01%]
13	Do you think the student's learning experience will improve with OBE?	Yes [13%] NO [-] Can't say [1%]
14	Will you able to get support from stake holders in implementing OBE?	Yes [9%] NO [4%] Can't say [1%]
15	Will it be easy in assessing a student under OBE?	Yes [8%] NO [-] Can't say [06]
16	Have you uploaded your outcomes on your college website?	Yes [08%] NO [06%] Can't say [-]
17	Did this OBE workshop help you in understanding the concept?	Yes [09%] NO [5%] Can't say [-]
18	Will OBE help students understand the focus of the course and the type of assessment?	Yes [11%] NO [-] Can't say [2%]
19	Will OBE help recruiters / employers in selecting / recruiting the students?	Yes [12%] NO [2%] Can't say [7%]
20	Suggestions, if any:	

Signature

AKKINENI NAGESWARA RAO COLLEGE
(with Post-Graduate Courses)
Autonomous and Affiliated to Krishna University
Accredited by NAAC at A Level
Aided College by Govt. of A.P. : : An ISO 9001:2015 Certified Organisation

NATIONAL LEVEL WORKSHOP on
OUTCOME BASED EDUCATION (OBE) – POSSIBILITIES AND CHALLENGES
(Under Assistance of UGC Autonomous Grant)
22nd November 2019

Registered Participants

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18	Ms. B. Sreedevi	Lecturer	Physics	A.N.R. College, Gudivada
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21	Smt. B. Subhashini	Lecturer	English	A.N.R. College, Gudivada
22	Smt. G. Tara Kumari	Lecturer	Librarian	A.N.R. College, Gudivada

23	Sri V. Rama Rao	Lecturer	Commerce	A.N.R. College, Gudivada
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25	Ms. K. Sraya Latha	Lecturer	Commerce	A.N.R. College, Gudivada
26	Sri A. Kiran Kumar	Lecturer	Commerce	A.N.R. College, Gudivada
27	Sri S.V.S. Datta	Lecturer	Mathematics	A.N.R. College, Gudivada
28	Sri Ch. Prakash	Lecturer	English	A.N.R. College, Gudivada
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30	Dr. C. Lakshminath	Lecturer	MBA	A.N.R. College, Gudivada
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33	Md. Saleem	Lecturer	MBA	A.N.R. College, Gudivada
34	Smt. Nazia Sulthana	Lecturer	MBA	A.N.R. College, Gudivada
35	Ms. B. Phani Rajya Laxmi	Lecturer	MBA	A.N.R. College, Gudivada
36	Ms.A.N.V.D. Padmaja	Lecturer	MBA	A.N.R. College, Gudivada
37	Sri K.H.Giridhara Rao	Lecturer	MBA	A.N.R. College, Gudivada
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40	Ms. K. Lavanya	Lecturer	MCA	A.N.R. College, Gudivada
41	Ms. P.Santhi	Lecturer	MCA	A.N.R. College, Gudivada
42	Smt. B. Tarimala Devi	Lecturer	MCA	A.N.R. College, Gudivada
43	Ms. A. Durga Bhavani	Lecturer	MCA	A.N.R. College, Gudivada
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45	Sri M. Ravi Sundar	Lecturer	MCA	A.N.R. College, Gudivada
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47	Ms. K. Sukanya	Lecturer	MCA	A.N.R. College, Gudivada
48	Smt. P. Sreedevi	Lecturer	Statistics	A.N.R. College, Gudivada
49	Sri S. Ramesh	Lecturer	Statistics	A.N.R. College, Gudivada
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53	Ms. B. Rajani	Lecturer	Mathematics	A.N.R. College, Gudivada

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68	Sri K. Naga Praveen	Lecturer	P.G. Physics	A.N.R. College, Gudivada
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70	Smt. B. Subhashini	Lecturer	P.G. Chemistry	A.N.R. College, Gudivada
71	Smt. D. Vimala Kumari	Lecturer	P.G. Chemistry	A.N.R. College, Gudivada
72	Ms. G. Geetha Sri	Lecturer	P.G. Chemistry	A.N.R. College, Gudivada
73	Smt. B.S.S. Padmaja	Lecturer	P.G. Librarian	A.N.R. College, Gudivada
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77	Sri P. Ravindra	Lecturer	HOD, M.Sc. (Comp. Sci.)	KBN College, Vijayawada
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94	Sri B. Jagan Mohana Rao	Lecturer	Mathematics	Sir C.R.R. College, Eluru
95	Sri V. Rama Brahmmam	Lecturer	Mathematics	Sir C.R.R. College, Eluru
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105	Sri T. Benjamin	Lecturer	Chemistry	Noble College, Machilipatnam
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116	Sri S. Gopala Krishna	Lecturer	Physics	K.T.R. Women's College, Gudivada
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119	Sri A. Peddi Raju	Lecturer	Librarian	Govt. Jr. College for Girls
120	Sri G. Rahul	Lecturer	Chemistry	Hindu College, Machilipatnam

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137	Sri P. Subhakara Rao	Lecturer	Commerce	P. B. Siddartha College, Vijayawada
138	Sri V.V.K. Dharmendra Rao	Lecturer	Commerce	P. B. Siddartha College, Vijayawada
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162	Dr. R.N. Sujatha	Lecturer	Telugu	PR College, Kakinada
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173	Ms. K. Sailaja	Lecturer	Hindi	Sir Cr. Reddy College, Eluru
174	Sri A. Bala Sowri	Lecturer	English	Hindu College, Guntur
175	Sri Ch. Durga Prasad	Lecturer	Librarian	MVR College of Eng. & Tech., Paritala
176	Sri B.Srinivasa Rao	Lecturer	Hindi	Govt. Degree College, Chebrolu
177	Sri Y. Samson	Lecturer	Librarian	Hindu College, Machilipatnam
178	Ms. P. Sharada	Lecturer	Librarian	SDMSMK College, Vijayawada
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185	Sri K. Ashok Kumar	Lecturer	Librarian	Adhitya Engineering College, Kakinada

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188	Dr. K. Srikrishna	Lecturer	Hindi	Acharya Nagarjuna University, Guntur
189	Sri Shaik Anwar	Lecturer	Hindi	A.G. & S.G. College, Vuyyuru
190	Sri S. Nagendra	Lecturer	English	SKSL Degree College, Proddutur
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192	Ms. K. Suneetha Kumari	Lecturer	English	A.C. College, Guntur
193	Dr. Ch. Vijay Kumar	Lecturer	Telugu	C.R. College, Chilakaluripeta
194	Dr. CH. Praveen	Lecturer	Sanskrit	A.C. College, Guntur
195	Dr. G. Gowri	Lecturer	Telugu	Govt. Degree College, Guntur
196	Dr.Ch. Syamala kumar	Lecturer	Telugu	AGKM College, Sattenapalli
197	Dr. Ch. NaveenKumar	Lecturer	English	Hindu College, Guntur
198	Dr. K. Raja Manikyam	Lecturer	English	SPMH Degree College, Machilipatnam
199	Dr.G.V. Anand Kumar	Lecturer	Telugu	Noble College, Machilipatnam
200	Sri J.Janakee	Lecturer	Hindi	K.B.N. College, Vijayawada
201	Dr. P. Santhi	Lecturer	Hindi	Noble College, Machilipatnam
202	Dr.K. Jasmin	Lecturer	Hindi	Montessori Mahila Kalasala, Vijayawada
203	Sri M. Somaiah	Lecturer	Librarian	AG & SG College, Vuyyuru
204	Sri K. Sasi Kumar	Lecturer	English	SVKP & KS Raju Arts & Sci. College, Penugonda
205	Sri J.V. Sudheer	Lecturer	Telugu	TJPS College, Guntur
206	Dr.B. Venkata Swamy	Lecturer	Telugu	PAS College, Pedanandipadu
207	Dr. A. Silma Naik	Lecturer	Telugu	TSP Oriental College, Hyderabad

208	Dr. T. Srinivasulu	Lecturer	Telugu	TSP Oriental College, Hyderabad
209	Sri B. Raja Ratnam	Lecturer	Telugu	TSP Oriental College, Hyderabad
210	Sri E. Eswar	Lecturer	Telugu	TSP Oriental College, Hyderabad
211	Sri B. Prem Kumar	Lecturer	Telugu	TSP Oriental College, Hyderabad
212	Sri S. Lalitha	Lecturer	Telugu	TSP Oriental College, Hyderabad
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215	Sri B. Srinivas	Lecturer	M.C.A.	VRS Engineering College
216	Ms. S. P.V.N.D. Suneetha	Lecturer	Comp. Science	P.G. Siddhartha College, Vijayawada
217	Ms. K. Priya	Lecturer	M.C.A.	P.G. Siddhartha College, Vijayawada
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219	Sri P. Ravi Kumar	Lecturer	Statistics	Pavitra Degree College, Machilipatnam
220	Sri Sk. Khaleem	Lecturer	Statistics	Vidyalaya College, Gudivada
221	Sri Ch. Santosh Kumar	Lecturer	Statistics	Nalanda College, Vijayawada
222	Sri G. Vijayadeep	Lecturer	Comp. Science	YVNR Govt. Degree College, Kaikaluru
223	Ms. P. Siva Parvathi	Lecturer	Statistics	K.T.R. College, Gudivada
224	Ms. A. Hima Bindu	Lecturer	Comp. Science	K.T.R. College, Gudivada
225	Sri G. Moses	Lecturer	Statistics	D.N.R. College, Nuzvid
226	Ms. A. Suhasini	Lecturer	Statistics	S.D.M.S. Mahila Kalasala, Vijayawada
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231	Ms.Y. Sailaja	Lecturer	Asst. Politics	CH.S.D. St.Theresa College, Eluru
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233	Dr. Ch. Prakasara Rao	Lecturer	Asst. Economics	P.B. Siddhartha College, Vijayawada
234	Dr. K. Ratna Manikyam	Lecturer	Commerce	Govt. Degree College, Rajamahendravaram
235	Sri M. Dasu	Lecturer		SVRM College, Nagaram
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237	Ms. T. Navya	Lecturer	MBA	A.N.R. College, Gudivada
238	Dr. K. Pradeep Reddy	Lecturer	Associate Prof.	LNCT University, Bhopal
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248	Dr. M.V.A. Prasad	Lecturer	Associate Prof.	Don Bosco P.G. College, Guntur

249	Sri M.I. Aditya	Lecturer	Mangt. Studies	Krishna University, Machilipatnam
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252	Sri G. Anand Kumar	Lecturer	Associate Prof.	Gayathri Vidya Parishat College of Engg., Vizag
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257	Sri M. Pavan Kumar	Lecturer	Asst. Prof. Hotel Management	K.L. University, Vijayawada
258	Sri V. Dhana Narayana	Lecturer	Asst. Prof.Hotel Management	K.L. University, Vijayawada
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