



K.T.S GOVERNMENT DEGREE COLLEGE RAYADURG NAAC B+ GRADE



Courses Offered

- 1.B.COM (General)
- 2.B.COM (Computer Applications)
- 3.B.A (HEP)
- 4.B.A (HERD)
- 5.B.A (THP)
- 6 B.A (HPED)
- 7 B.Sc(MPCS)
- 8 B.Sc(MPE)
- 9.B.Sc(MB.B.C)

PROGRAM OUTCOMES

On the successful completion of graduation, the students will be able to:

PO1: Domain expertise

- Gain knowledge and skills
- Apply them effectively and innovatively

PO2: Continuous learning and research

- Continue learning with self-motivation
- Adapt to the evolving demands and needs of life
- investigate to see cause and effect relationship

PO3: Using modern equipment

- Use ICT effectively
- Use it for communication and innovation

PO4: Following ethics

- Ensure moral behaviour in the workplace and in daily life
 - Adhere to moral principles in all actions

PO5: Complex problem solving

- Predict and analyze problems

- Investigate and interpret empirical data
- Plan and execute action for problem solving

PO6: Perform effectively both as individual and in team

- Work efficiently as an individual
- Cooperate, coordinate and ensure successful teamwork
- Prioritize common interest to individual interest

PO7: Efficient communication and life skills

- Listen, understand and express thoughts in an effective manner
- Choose appropriate media to share information

PO8: Environmental sustainability

- Understanding environmental concerns; evaluating sustainability metrics; and adopting and promoting eco-friendly behaviours

PO9: Societal contribution

- Serve the greater good of society through volunteering for regional, national, and international social development initiatives.
- Volunteer with pride to combat calamities, disasters, poverty, and diseases. Be a patriotic citizen to maintain the nation's principles.

PROGRAM SPECIFIC OUTCOMES

B.COM. (GENERAL)

- **PSO 1:** Students will be able to demonstrate progressive learning of various tax issues and tax forms related to individuals. Students will be able to demonstrate knowledge in setting up a computerized set of accounting books
- **PSO2:** Students will learn relevant managerial accounting career skills, applying both quantitative and qualitative knowledge to their future careers in business.
- **PSO3:** Learners will gain thorough systematic and subject skills within various disciplines of commerce, business, accounting, economics, finance, auditing and marketing.
- **PSO4:** Learners will be able to recognise features and roles of businessmen, entrepreneur, managers, consultants, which will help learners to possess knowledge and other soft skills and to react aptly when confronted with critical decision making.
- **PSO5:** Learners will be able to prove proficiency with the ability to engage in competitive exams like CA, CS, ICWA and other courses.
- **PSO6:** Learners will acquire the skills like effective communication, decision making, problem solving in day to day business affairs

- **PSO7:** Learners will be involved in various co-curricular activities to demonstrate relevancy of foundational and theoretical knowledge of their academic major and to gain practical exposure.
- **PSO8:** Learners can also acquire practical skills to work as tax consultant, audit assistant and other financial supporting services.

B.COM. (COMPUTER APPLICATIONS)

- **PSO1:**To understand the scope and concepts of Accounting, Business Operations and Management.
- **PSO2:**To analyze the relationship between Accounting, Auditing and Taxation.
- **PSO3:**To learn about Computers-its hardware-its software and about Database Management Systems.
- **PSO4:**To learn about the programming languages like C,C++,Java,Python R and new technologies like Big Data and Data Science.

B.A (HEP)

- **PSO1:**Students will analyze how local, national and international politics and practices developed in the past continue to impact their contemporary lives.
- **PSO2:**Students understand the diversity of the experience as it influences the geographical location race ethnicity cultural traditions gender and class.
- **PSO3:**How the consumers and producers will take rational decisions of unlimited wants with scarce resources; Understanding the process of economic growth, economic development and sustainable growth.
- **PSO4:**Able to apply the determinants of economic growth and development to the economies of India and Andhra Pradesh and appraise the fiscal, monetary and other socio-economic policies being pursued. Basic understanding of Statistical Methods with a view to applying them to economics and real-life situations.
- **PSO5:**Understand and analyze organs and forms of Governments along with a deep insight into the various agents involved in the political process.

B.A (HERD)

- **PSO1:**· Increased potential for employability of students.
- **PSO2:** Successful graduates of the course are placed across.
- **PSO3:** Interested in serving the society and contributing to rural development.
- **PSO4:** Excellent social skills and ability to work all kind of circumstances for the development of the country.

B.A (HPED)

- **PSO1:**Students will analyze how local, national and international politics and practices developed in the past continue to impact their contemporary lives.
- **PSO2:**Students understand the diversity of the experience as it influences the geographical location race ethnicity cultural traditions gender and class.
- **PSO3:**Have solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies.
- **PSO4:** Understand and analyze organs and forms of Governments along with a deep insight into the various agents involved in the political process.
- **PSO5:**Get specific skills of English through online learning of tools of English.
- **PSO6:**Learners acquired computer hard work operating systems applications etc.

B.A (THP)

- **PSO1:**Studying Telugu literature, history and political science will make people with values.
- **PSO2:**Improve language skills and excel in future life.
- **PSO3:**Students will analyze how local, national and international politics and practices developed in the past continue to impact their contemporary lives.
- **PSO4:**Students understand the diversity of the experience as it influences the geographical location race ethnicity cultural traditions gender and class.
- **PSO5:**Understand and analyze organs and forms of Governments along with a deep insight into the various agents involved in the political process.

B.A (HPED)

- **PSO1:**Students will analyze how local, national and international politics and practices developed in the past continue to impacts their contemporary lives.
- **PSO2:**Students understand the diversity of the experience as it influences the geographical location race ethnicity cultural traditions gender and class.
- **PSO3:**Have solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies.
- **PSO4:**Understand and analyze organs and forms of Governments along with a deep insight into the various agents involved in the political process.
- **PSO5:** Get specific skills of English through online learning of tools of English.

B.Sc(MPCS)

- **PSO 1** : Understand basic mechanics and properties of matter.
- **PSO 2** : Identify, formulate and analyze complex problems using basic principles of mathematics, physics and statistics.
- **PSO 3** : Develop effective communication skills.
- **PSO 4** : Develop experimental skills and independent work culture through a series of experiments that compliment theories and projects

B.Sc(MPE)

- **PSO 1** : Understand basic mechanics and properties of matter.
- **PSO 2** : Illustrate the principles of electricity, magnetism, thermodynamics, optics and spectroscopy.
- **PSO 3** : Design, construct and analyze basic electronic and digital circuits.
- **PSO 4** : Understand the basics of programming language and apply it to various numerical problems.
- **PSO 5** : Develop effective communication skills.

B.Sc(MB.B.C)

- **PO1:** Student will be able to communicate specific information effectively, especially relating to the microbiological organisms, and the roles microbiological organisms in eco system ecosystem function health related issues .
- **PO2:** Recognize state-of-the-art scientific advances in the biology of infectious diseases of humans and animals
- **PO3:** Covers basics of microbial control, antimicrobial agents. Antibiotics, microbiological assays and drug resistance.
- **PO4:** Perform laboratory tests to investigate antimicrobial agents.
- **PO5:** Students will gain familiarity with the role of microbes in the context of ecosystem function (e.g., microbial ecology, microbiome, etc.)



**K.T.S GOVERNMENT DEGREE COLLEGE
RAYADURG
NAAC B+ GRADE**



COURSE OUTCOMES

**DEPARTMENT OF COMMERCE
SEMESTER -I**

FUNDAMENTALS OF ACCOUNTING - NS1-551

- CO1:To know the various types of business , trade, industry and commerce.
- CO2:To know the various functions of business and how to enter into the new business.
- CO3:To enable students to work in various types of companies in India.
- CO4:To know how to establish the companies.
- CO5:To know how to maintain , prepare planning and decentralization of authority in the business.
- CO6:To know how to maintain , prepare planning and decentralization of authority in the business.

BUSINESS ORGANISATION MANAGEMENT - NS1-552

- CO1:To know the various types of business , trade, industry and commerce.
- CO2:To know the various functions of business and how to enter into the new business.
- CO3:To enable students to work in various types of companies in India.
- CO4:To know how to establish the companies.
- CO5:To know how to maintain , prepare planning and decentralization of authority in the business.

BUSINESS ENVIRONMENT -NS1-553

- CO1:To know the various types of environment in the business in India and how the various types of environments determine the business.
- CO2:To understand which factors determine the development in India.
- CO3:To know the various types of plans and NITI AYOOG.
- CO4:To understand the various types of policies implemented in the Indian economy system since 1991.

SEMESTER -II

FINANCIAL ACCOUNTING - NS2-551

- CO1:To know the reasons for depreciation on various assets and how to calculate the depreciation.
- CO2:To know the various types of reserves and provisions and its users.
- CO3:To have an idea on various types of bills and its uses in the business.
- CO4:To know the consignment business and its importance how to calculate profit or loss in the consignment business.
- CO5:To enable students on the joint venture business and its uses in the present marketing system.

BUSINESS ECONOMICS - NS2-552

- CO1:To have an idea on the various types of the activities and its importance
- CO2:To enable students, the demand determines the fixation of the price of a product
- CO3:To know the market structure,how to determine the types of price of various markets.
- CO4:To have an idea on the national income and to compute the national income,how many problems are faced in calculation the national income.
- CO5:To know the various types of costs and revenues in the business.
- CO6:To know the functions of the Indian economy system,LPG,WTO.

BANKING THEORY AND PRACTICE -NS2-553

- CO1:To have knowledge on the various types of banks in India and its functions.
- CO2:To know the various development banks in India that are IDBI, NABARD etc.
- CO3:To know about the customer and banks, relationship between banker and customer, KYC Norms.

SEMESTER-III

ADVANCED ACCOUNTING -NS3-551

- CO1:Understand the concept of Non-profit organisations and its accounting process.

- CO2:Comprehend the concept of single-entry system and preparation of statement of.
- CO3:Familiarize with the legal formalities at the time of dissolution of the firm.
- CO4:Prepare financial statements for partnership firms on dissolution of the firm Affairs.

BUSINESS STATISTICS -NS3-552

- CO1:To know the importance of statistics,how to prepare the best questionnaire,and various methods for collection of data and how to present in tabulation & diagrammatic.
- CO2:To know the various types of measures of central tendency and its importance.
- CO3:To know the importance of correlation and regression , how to calculate the correlation and regression.
- CO4:To know the importance of index numbers, it is important today's market conditions.

MARKETING -NS3-553

- CO1:Students understand various concepts of marketing and the marketing environment.
- CO2:To Know the students on consumer how to determine the buying decision process and its stages.
- CO3:Students know the product life cycle and how to develop new product in the market.
- CO4:To know the students on various factors influencing price determination and its strategies.
- CO5:To know how a product distributes in the market through various distribution channels.

SEMESTER-IV

CORPORATE ACCOUNTING -NS4-551

- CO1:To know the various types of shares,its importance,and how the shares are issued to the public.
- CO2:To know the various types of debentures issued by a company and how to redemption of debentures.
- CO3:To know the importance of goodwill and how to compute the goodwill,shares of the company.

- CO4: How to prepare the final accounts as per companies act 2013 as per schedule II & III.

INCOME TAX-NS4-553

- CO1: To have knowledge on the basic concepts as per income tax act 1961.
- CO2: To know how to compute the total income from various heads of income and deductions eligible as per section 80 © to 80 (U).
- CO3: To know how to compute the tax liability of assessee as per income tax 1961 along with present slab rates.
- CO4: To know the meaning of GST and its importance of calculations.

COST ACCOUNTING -NS4-552

- CO1: To know the various types of costs and how to prepare a cost sheet in the production department.
- CO2: To have knowledge on how to control the materials and how to issue the materials from purchasing department to production department.
- CO3: To know the various types of payments to the labor and its importance.
- CO4: To have knowledge on the various types of methods of costing.

BUSINESS LAWS -NS4-554

- CO1: To know about the contract and various types of contracts as per Indian contract 1872.
- CO2: To know the offer and acceptance of a contract and its legal essential elements.
- CO3: To have an idea on who is eligible for contracts.
- CO4: To know the implied conditions and warranties as per sale of goods act 1930.

AUDITING -NS4-555

- CO1: Students understand the objectives and importance of auditing.
- CO2: Students know how many steps to be taken at the commencement of a new audit and audit programme.
- CO3: To have an idea on auditing VS investigation.
- CO4: To understand the students on how to verify and valuation various types of assets and liabilities.
- CO5: To understand the student on auditors qualifications, rights, duties, as per companies Act 2013.

GST-NS4-556

- CO1: Understand the basic principles underlying the Indirect Taxation Statutes.
- CO2: Examine the method of tax credit. Input and Output Tax credit and Cross Utilisation of Input Tax Credit.

- CO3:Identify and analyze the procedural aspects under different applicable statutes related to GST.
- CO4:Develop various GST Returns and reports for business transactions in Tally.

SEMESTER-V

Internship for B.Com(Computer Applications) & general students

- CO1:To learn about real time work in any organization

SEMESTER-VI

ADVANCED CORPORATE ACCOUNTING

- CO1:Understand Corporate Accounting environment
- CO2:Record Transactions related to Purchase of Business, Amalgamation and Reconstruction.
- CO3:Analyze the situations of Purchase of Business and Liquidation
- CO4>Create formulas and calculations relating to Amalgamation, Internal Reconstruction and Holding company accounts
- CO5:Acquire skills of Accounting Procedure of Advanced Corporate Accounting Environment.

SOFTWARE SOLUTIONS TO ACCOUNTING

- CO1:Understand the technical environment of accounting softwares.
- CO2:Highlight the major accounting softwares in India.
- CO3:Apply basics of accounting softwares into business firms for accounting transactions
- CO4:Understand the various versions of Tally and other softwares.
- CO5:Integrate the concept of different Accounting softwares for accounting purpose

LIFE INSURANCE WITH PRACTICE

- CO1:Understand the Features of Life Insurance , schemes and policies and insurance companies in India
- CO2:Analyze various schemes and policies related to Life Insurance sector
- CO3:Choose suitable insurance policy for given situation and respective persons
- CO4:Acquire Insurance Agency skills and other administrative skills
- CO5:Acquire skill of settlement of claims under various circumstances

GENERAL INSURANCE WITH PRACTICE

- CO1:Understand the Features of General Insurance and Insurance Companies in India
- CO2:Analyze various schemes and policies related to General Insurance sector 3. Choose suitable insurance policy under Health, Fire, Motor, and Marine Insurances
- CO3:Acquire General Insurance Agency skills and administrative skills
- CO4:Apply skill for settlement of claims under various circumstances

DIGITAL MARKETING

- CO1:Analyze online Micro and Macro Environment.
- CO2:Design and create website
- CO3:Discuss search engine marketing
- CO4:Create blogs, videos, and share

SERVICE MARKETING

- CO1:Discuss the reasons for growth of the service sector.
- CO2:Examine the marketing strategies of Banking Services, insurance and education services.
- CO3:Review conflict handling and customer Responses in services marketing
- CO4:Describe segmentation strategies in service marketing.
- CO5:Suggest measures to improve service quality and their service delivery.

DEPARTMENT OF COMPUTER APPLICATIONS

SEMESTER -I

PAPER-I: Information Technology

- CO1:To gain knowledge about Computer-its basic functionality of computer-its hardware and software and about operating systems
- CO2:To gain knowledge about MS-WORD
- CO3:To gain knowledge about MS-EXCEL,MS-ACCESS
- CO4:To make students practically implement MS-OFFICE package

SEMESTER -II

PAPER -II: E-commerce and Web designing

- CO1:To gain knowledge about e commerce its business models and design ecommerce website
- CO2:To gain knowledge about e-payment systems
- CO3:To gain knowledge regarding design and implementing of website by learning HTML

- CO4:To gain knowledge about security and encryption

SEMESTER-III

PAPER III: Programming in c and c++

- CO1:To learn C and C++ language
- CO2:To learn and implement Programing in C from basic of control structure to concept of arrays and functions
- CO3:To learn about concepts of Object Oriented Programming [OOPS]
- CO4:To learn and design simple applications using C and C++

SEMESTER-IV:

PAPER IV:Database Management Systems

- CO1:To gain knowledge about Data,Database and Database Management Systems
- CO2:To understand the role of database management systems in organization
- CO3:To understand and successfully apply logical database design principles including E-R diagrams and database normalization
- CO4:To perform PL/SQL programing concept using cursor management,error handling and packages.

PAPER V:Object Oriented Programming with Java

- CO1:To learn and OOPs concept in Java
- CO2:To gain knowledge regarding basic structure of Java Program,Control statements arrays and strings in java
- CO3:To learn about packages and streams in java
- CO4:To gain knowledge to implement small projects by using Java Programming

SEMESTER-V: Internship for B.Com(Computer Applications) students

- CO:To learn about real time work in any organization

SEMESTER-VI

PAPER VI:Big Data Analytics Using R

- CO1:To understand data and classification of digital data
- CO2:To understand Big Data Analytics
- CO3:To load data in R and to organize data inform of R objects
- CO4:To perform analytics using R programming.

PAPER VII:Data Science using Python

- CO1:To understand basic concepts of data science
- CO2:To understand why python is useful scripting language for developers
- CO3:To use standard programming constructs like selection and repetitions
- CO4:To implement functions and module in R

DEPARTMENT OF MICROBIOLOGY

SEMESTER-I

Code	Course title	Course Type
S1- 411	INTRODUCTION TO MICROBIOLOGY AND MICROBIAL DIVERSITY	Core

After successful completion of this course students are expected to be able to:

- CO1:Demonstrate theory and practical skills in microscopy and their handling techniques and staining procedures
- CO2:Understand the basic microbial structure and function and study the comparative characteristics of prokaryotes and eukaryotes and also Understand the structural similarities and differences among various physiological groups of bacteria/archaea.
- CO3:Know various Culture media and their applications and also understand various physical and chemical means of sterilization Know General bacteriology and microbial techniques for isolation of pure cultures of bacteria, fungi and algae

SEMESTER-II

Code	Course title	Course Type
S2- 411	MICROBIAL BIOCHEMISTRY & METABOLISM	Core

Microbial Biochemistry is a branch of science which combines biological, chemical and physical principles and its application to living systems pertaining to both macro and Micro Organisms.

Upon successful completion of the course, students are expected to be able to:

- CO1:CO1:Understanding the laws of thermodynamics, concepts of entropy, enthalpy and free energy changes and their application to biological systems and various biochemical studies and reactions.
- CO2:Overview of major biomolecules –carbohydrates, lipids, proteins, amino acids, nucleic acids, classification, structure, function of the above mentioned bio molecules.
- CO3:Conceptual knowledge of properties, structure, function of enzymes, enzyme kinetics and their regulation, enzyme engineering, Application of enzymes in large scale industrial processes.

SEMESTER-III

Code	Course title	Course Type
S3- 411	MICROBIAL GENETICS AND MOLECULAR BIOLOGY	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:Understand the properties, structure and function of genes in living organisms at the molecular level.
- CO2:Explain the significance of central dogma of gene action.
- CO3:Understand the molecular mechanisms involved in transcription and translation.
- CO4:Discuss the molecular mechanisms underlying mutations, detection of mutations and DNA damage and repair mechanisms.

SEMESTER-IV

Code	Course title	Course Type
S4 411	IMMUNOLOGY AND MEDICAL MICROBIOLOGY	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:Learn how “**clonal selection**” allows for the expansion of a limited number of antigen-recognizing lymphocytes in response to an specific antigenic stimulus .
- CO2:Begin to appreciate the significance of maintaining a state of immune tolerance sufficient to prevent the emergence of autoimmunity.
- CO3:To understand Tumor Immunology and help the students to understand its immunoprophylaxis and immunotherapy.

SEMESTER-V

Code	Course title	Course Type
S5-411	ENVIRONMENTAL & AGRICULTURAL MICROBIOLOGY	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:Competently explain various aspects of environmental microbiology and microbial ecology and to become familiar with current research in environmental microbiology.

- CO2: Understand various plant microbes interactions especially rhizosphere, phyllosphere and mycorrhizae and their applications especially the bio fertilizers and their production techniques.
- CO3: Comprehend the various methods to determine the Sanitary quality of water and sewage treatment methods employed in waste water treatment.

SEMESTER-V

Code	Course title	Course Type
S5-412	<u>FOOD AND INDUSTRIAL MICROBIOLOGY</u>	Core

Upon successful completion of the course, students are expected to be able to:

- CO1: Understand the beneficial role of microorganisms in fermented foods and in food processing and the microbiology of different types of fermented food products – dairy, pickles, Legume and cereal based food products.
- CO2: Understand the significance and activities of microorganisms in food and role of intrinsic and extrinsic factors on growth and survival of microorganisms in foods.
- CO3: Know the spoilage mechanisms in foods and thus identify methods to control deterioration and spoilage.
- CO4: Recognize and describe the characteristics of important pathogens and spoilage microorganisms in foods.

SEMESTER-VI

Code	Course title	Course Type
S6 – 411	MICROBIAL BIOTECHNOLOGY	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:Be able to demonstrate a familiarity with the wide diversity of microbes, and their potential for use in microbial biotechnology
- CO2:Be able to demonstrate a knowledge of microbial gene and genome structure and function, and how these can be manipulated
- CO3:Be able to demonstrate understanding of some of the legislative and ethical issues related to microbial biotechnology.

SEMESTER-VI

Code	Course title	Course Type
S6 – 412	MICROBIAL DIAGNOSIS IN HEALTH CLINICS	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:Demonstrate knowledge of the taxonomy of microorganisms and their importance in clinical microbiology, public health, as well as food and water microbiology, the molecular basis of antibiotic resistance and how to control the growth and spread of microbes in the environment.
- CO2:Communicate using the proper scientific language of the field including clinical laboratory reports written with a professional approach.
- CO3:Perform laboratory tests to investigate antimicrobial agents.

SEMESTER-VI

Code	Course title	Course Type
S6 – 413	MICROBIAL QUALITY CONTROL IN FOOD AND PHARMACEUTICAL INDUSTRY	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:It provides the knowledge of various methods of disease control. With the knowledge students can work in hospitals, pharmacies and industries.
- CO2:Covers basics of microbial control, antimicrobial agents. Antibiotics, microbiological assays and drug resistance.
- CO3:It makes students self-reliant in the industrial application of Microbiology in life and industry. Entrepreneurship can be established with the gained knowledge

SEMESTER-VI

Code	Course title	Course Type
S6 – 414	MANAGEMENT OF HUMAN MICROBIAL DISEASES	Core

Upon successful completion of the course, students are expected to be able to:

- CO1:Recognize state-of-the-art scientific advances in the biology of infectious diseases of humans and animals.
- CO2:Understand the strategies of pathogens to exploit their hosts and of hosts to defend themselves against their pathogens and how this information can be used to develop management tools to combat infectious diseases or their vectors.

DEPARTMENT OF PHYSICS

SEMESTER -I

Course I: MECHANICS, WAVES AND OSCILLATIONS

- CO1: Understand Newton's laws of motion and motion of variable mass system and its application to rocket motion and the concepts of impact parameter, scattering cross section.
- CO2: Apply the rotational kinematic relations, the principle and working of gyroscope and its applications and the precessional motion of a freely rotating symmetric top.
- CO3 :Comprehend the general characteristics of central forces and the application of Kepler's laws to describe the motion of planets and satellite in circular orbit through the study of law of Gravitation
- CO4 :Understand postulates of Special theory of relativity and its consequences such as length contraction, time dilation, relativistic mass and mass-energy equivalence.
- CO5 :Examine phenomena of simple harmonic motion and the distinction between undamped, damped and forced oscillations and the concepts of resonance and quality factor with reference to damped harmonic oscillator.
- CO6 :Appreciate the formulation of the problem of coupled oscillations and solve them to obtain normal modes of oscillation and their frequencies in simple mechanical systems.
- CO7 :Figure out the formation of harmonics and overtones in a stretched string and acquire the knowledge on Ultrasonic waves, their production and detection and their applications in different fields.

SEMESTER -II

Semester Course-II: WAVE OPTICS

- CO1: Understand the phenomenon of interference of light and its formation in (i) Lloyd's single mirror due to division of wave front and (ii) Thin films, Newton's rings and Michelson interferometer due to division of amplitude.
- CO2: Distinguish between Fresnel's diffraction and Fraunhofer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating.
- CO3: Describe the construction and working of the zone plate and make the comparison of the zone plate with a convex lens.
- CO4: Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity.
- CO5: Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.
- CO6: Explain about the different aberrations in lenses and discuss the methods of minimizing them.
- CO7: Understand the basic principles of fibre optic communication and explore the field of Holography and Nonlinear optics and their applications.

SEMESTER-III

II Course-III: HEAT AND THERMODYNAMICS

- CO1: Understand the basic aspects of kinetic theory of gasses, Maxwell-Boltzman distribution law, equipartition of energies, mean free path of molecular collisions and the transport phenomenon in ideal gasses.
- CO2: Gain knowledge on the basic concepts of thermodynamics, the first and the second law of thermodynamics, the basic principles of refrigeration, the concept of entropy, the thermodynamic potentials and their physical interpretations.
- CO3: Understand the working of Carnot's ideal heat engine, Carnot cycle and its efficiency.
- CO4: Develop critical understanding of the concept of Thermodynamic potentials, the formulation of Maxwell's equations and its applications.
- CO5: Differentiate between principles and methods to produce low temperature and liquefy air and also understand the practical applications of substances at low temperatures.
- CO6: Examine the nature of black body radiation and the basic theories.

SEMESTER-IV

Course-IV: ELECTRICITY, MAGNETISM AND ELECTRONICS

- CO1: Understand the Gauss law and its application to obtain electric fields in different cases and formulate the relationship between electric displacement vector, electric polarization, Susceptibility, Permittivity and Dielectric constant.
- CO2: Distinguish between the magnetic effect of electric current and electromagnetic induction and apply the related laws in appropriate circumstances.
- CO3: Understand Biot and Savart's law and Ampere's circuital law to describe and explain the generation of magnetic fields by electrical currents.
- CO4: Develop an understanding on the unification of electric and magnetic fields and Maxwell's equations governing electromagnetic waves.
- CO5: Phenomenon of resonance in LCR AC-circuits, sharpness of resonance, Q- factor, Power factor and the comparative study of series and parallel resonant circuits.
- CO6: Describe the operation of p-n junction diodes, zener diodes, light emitting diodes and transistors
- CO7: Understand the operation of basic logic gates and universal gates and their truth tables.

Course V: MODERN PHYSICS

- CO1: Develop an understanding on the concepts of Atomic and Modern Physics, basic elementary quantum mechanics and nuclear physics.
- CO2: Develop critical understanding of concept of Matter waves and Uncertainty principle.
- CO3: Get familiarized with the principles of quantum mechanics and the formulation of Schrodinger wave equation and its applications.
- CO4 : Examine the basic properties of nuclei, characteristics of Nuclear forces, salient features of Nuclear models and different nuclear radiation detectors.
- CO5: Classify Elementary particles based on their mass, charge, spin, half life and interaction.
- CO6: Get familiarized with the nano materials, their unique properties and applications.
- CO7: Increase the awareness and appreciation of superconductors and their practical applications.

SEMESTER-V

V Semester Course 6C: APPLICATIONS OF ELECTRICITY & ELECTRONICS

- CO1: Identify various components present in the Electricity & Electronics Laboratory.
- CO2: Acquire a critical knowledge of each component and its utility (like resistors, capacitors, inductors, power sources etc.).
- CO3: Demonstrate skills of constructing simple electronic circuits consisting of basic circuit elements.
- CO5: Understand the need & Functionality of various DC & AC Power sources.
- CO6: Comprehend the design, applications and practices of various electrical & Electronic devices and also their troubleshooting.

V Semester Course 7C: ELECTRONIC INSTRUMENTATION

- CO1: Identify various facilities required to set up a basic Instrumentation Laboratory.
- CO2 : Acquire a critical knowledge of various Electrical Instruments used in the Laboratory.
- CO3: Demonstrate skills of using instruments like CRO, Function Generator, Multimeter etc. through hands-on experience.

- CO4 : Understand the Principle and operation of different display devices used in the display systems and different transducers
- CO5: Comprehend the applications of various biomedical instruments in daily life like B.P. meter, ECG, Pulse oximeter etc. and know the handling procedures with safety and security.

SEMESTER-VI

Internship for B.sc students

- CO1: To learn about real time work in any organization

DEPARTMENT OF CHEMISTRY

SEMESTER -I

- CO1: Understand the basic concepts of qualitative analysis of inorganic mixture
- CO2: Use glassware, equipment and chemicals and follow experimental procedures in the laboratory.
- CO3: Apply the concepts of common ion effect, solubility product and concepts related to qualitative analysis

SEMESTER -II

- CO1: Understand and explain the differential behavior of Organic compounds based on fundamental concepts learnt.
- CO2: Formulate the mechanism of organic reactions by Recalling and correlating the fundamental properties of the reactants involved.
- CO3: Learn and identify many organic reaction mechanisms including Free Radical Substitution, Electrophilic Addition and Electrophilic Aromatic Substitution.
- CO4: Correlate and describe the stereochemical properties of organic compounds and reactions.

SEMESTER-III

- CO1: Understand preparation, properties and reactions of haloalkanes, haloarenes and oxygen containing functional groups.
- CO2: Use the synthetic chemistry learnt in this course to do functional group transformations.
- CO3: To Propose Plausible Mechanisms For Any Relevant Reaction

SEMESTER-IV

- CO1: To learn about the laws of absorption of light energy by molecules and subsequent photochemical reactions.
- CO2: To understand the concept of quantum efficiency and mechanisms of photochemical reaction.
- CO3: Understand concepts of boundary conditions and quantization, probability distribution, most probable values, uncertainty and expectation values. Application of quantization to spectroscopy.
- CO4: Various types of spectra and their use in structural determination

SEMESTER-V

I. Learning Outcomes: 6D

- CO1: Understand the environment functions and how it is affected by human activities.
- CO2: Acquire chemical knowledge to ensure sustainable use of the world's resources and ecosystems services.
- CO3: Engage in simple and advanced analytical tools used to measure the different types of pollution.
- CO4: Explain the energy crisis and different aspects of sustainability.
- CO5: Analyze key ethical challenges concerning biodiversity and understand the moral principles, goals and virtues important for guiding decisions that affect Earth's plant and animal life.

II. Learning Outcomes: 7D

- CO1: Understand the importance of Green chemistry and Green synthesis.
- CO2: Engage in Microwave assisted organic synthesis.
- CO3: Demonstrate skills using the alternative green solvents in synthesis.
- CO4: Demonstrate and explain enzymatic catalysis.
- CO5: Analyze alternative sources of energy and carry out green synthesis.
- CO6: Carry out the chemical method of nanomaterial synthesis.

SEMESTER-VI

Internship for B.sc students

- CO1: To learn about real time work in any organization

DEPARTMENT OF ELECTRONICS

SEMESTER -I

CIRCUIT THEORY AND ELECTRONIC DEVICES

- CO1:Apply concepts of electric network topology, nodes, branches, loops to sc circuit problems including the use of computer simulation.
- CO2:Apply time and frequency concepts of analysis.
- CO3:Synthesize the network using passive elements.
- CO4:Know about amplifier circuits, switching circuits and oscillator circuits, their design and use in electronics.
- CO5:Design and construction of a power supply.

SEMESTER -II

Digital Electronics

- CO1:Develop a digital logic and apply it to solve real life problems.
- CO2:Analyze, design and implement combinational logic circuits.
- CO3:Classify different semiconductor memories.
- CO4:Analyze, design and implement sequential logic circuits.
- CO5: Simulate and implement combinational and sequential logic circuits using VHDL

SEMESTER-III

ANALOG CIRCUITS AND COMMUNICATION

- CO1:Understand the fundamentals and areas of applications for the integrated circuits.
- CO2:Analyze important types of integrated circuits.
- CO3:Demonstrate the ability to design practical circuits that perform the desired operation.
- CO4:Select the appropriate integrated circuit modules to build a given application.
- CO5:Use of different modulation and demodulation techniques used in analog communication.
- CO6:Identify and solve basic communication problems

SEMESTER-IV

MICROPROCESSOR SYSTEMS- paper-IV

- CO1: The student can gain good knowledge on microprocessor and implement in practical applications
- CO2: Design system using memory chips and peripheral chips for 16 bit 8086 microprocessors.
- CO3: Understand and devise techniques for faster execution of instructions, improve speed of operations and enhance performance of microprocessorsUnderstand multi core processors and its advantages .

MICROCONTROLLER AND INTERFACING-paper-V

- CO1: The student can gain good knowledge on microcontrollers and implement in practical applications
- CO2: Learn Interfacing of Microcontroller
- CO3: Get familiar with real time operating system

SEMESTER-V

Industrial Electronics-6A

- CO1: Identify various facilities required to set up a basic Instrumentation Laboratory.
- CO2: Acquire a critical knowledge of various Electrical Instruments used in the Laboratory.
- CO3: Demonstrate skills in using instruments like Rectifiers, Multimeters, Power supplies, Voltage Regulators etc. through hands-on experience.
- CO4:Understand the Principle and operation of different Electronic Heating devices.

SEMESTER-VI

Internship for B.sc students

- CO1:To learn about real time work in any organization

DEPARTMENT OF TELUGU

SEMESTER -I

ప్రాచీన తెలుగు కవిత్వం

- ఆదికవి నన్నయ కాలంనాటి భాషా సంస్కృతులు మరియు ఇతిహాసాల కాలం నాటి రాజనీతి విలువలు గురించి పరిజ్ఞానాన్ని గ్రహిస్తారు
- శివకవుల కాలంనాటి మత పరిస్థితులను భాషా విశేషాలను తెలుసుకుంటారు తెలుగు భాషలోని నుడికారం లోకోక్తులు సామెతలు మొదలైన భాషాంశాల పట్ల పరిజ్ఞానాన్ని పొందుతారు
- తిక్కన భారతం నాటి మత ధార్మిక పరిస్థితులను తిక్కన కవిత శిల్పాన్ని నాటకీయతను గురించి అవగాహన చేసుకుంటారు
- ఎర్రన సూక్తి వైచిత్రి ఇతిహాస కవిత్వంలోని విభిన్న రీతుల పట్ల అభిరుచిని పొందుతారు శ్రీనాథుని కాలం నాటి కవిత విశేషాలను మొల్ల కవిత విశిష్టతను తెలుసుకుంటారు
- ఎర్రన సూక్తి వైచిత్రి ఇతిహాస కవిత్వంలోని విభిన్న రీతుల పట్ల అభిరుచిని పొందుతారు శ్రీనాథుని కాలం నాటి కవిత విశేషాలను మొల్ల కవిత విశిష్టతను తెలుసుకుంటారు

ప్రాచీన కవిత్వ పరిచయం

- ప్రాచీన తెలుగు కవితా సౌందర్యాన్ని విశిష్టతను గుర్తిస్తారు తెలుగుజాతి సంప్రదాయాలను గ్రహిస్తూ తెలుగు వారి సంస్కృతిలో ఒక భాగమైన తెలుగు పద్య కవిత్వం వికాసం చెందిన విధానాన్ని విశ్లేషణాత్మకంగా అవగాహన చేసుకోగలరు.
- మార్గ కవితకు వ్యతిరేకంగా తలెత్తిన దేశీ కవితోద్యమాన్ని అవగాహన చేసుకుంటారు. శివకవుల కాలంనాటి మత ధార్మిక పరిస్థితులను భాష విశేషాలను గ్రహించగలరు.
- తిక్కన మహాభారత రచన విశిష్టతను గ్రహిస్తూ అందులోని కావ్య శిల్పం ద్వారా రసానుభూతిని పొందగలరు. ఉపాఖ్యానాలలోని సందేశాన్ని గ్రహిస్తూ, గ్రాంథిక భాష రూపుదిద్దుకున్న క్రమాన్ని గుర్తించగలరు.
- మార్గ కవిత ప్రబంధ ప్రక్రియలోకి పరిణమించిన వైనాన్ని తెలుసుకుంటారు ప్రబంధ యుగ విశిష్టతను అల్లసాని కవితలోని జిగిబిగిని ఆస్వాదించగలరు. కావ్య వస్తువుతో కాలానుగుణంగా వచ్చిన మార్పులను గ్రహించగలరు.
- పోతన భాగవత విశిష్టతను భక్తితత్వాన్ని అర్థం చేసుకోగలరు ముళ్ళ రామాయణంలోని కవిత చమత్కారాన్ని కావేతిహాస ప్రక్రియ విశిష్టతను సభ్యసౌందర్యాన్ని గ్రహించగలరు.

SEMESTER -II

ఆధునిక తెలుగు కవిత్వం

- ఆంగ్ల భాషా ప్రభావం కారణంగా తెలుగులో వచనం ఆధునిక సాహిత్యాన్ని దాని విశిష్టతను గుర్తిస్తారు.

- సమకాలీన ఆధునిక సాహిత్య ప్రక్రియలైన వచన కవిత్వం కథ నవల నాటకం విమర్శలపై అవగాహన పొందుతారు
- భావ కవిత అభ్యుదయ కవితా లక్ష్యాలను గూర్చిన జ్ఞానాన్ని పొందుతారు అత్యుత్తవాద ఉద్యమాల పుట్టుకను ఆవశ్యకతను గుర్తిస్తారు
- కథాసాహిత్యం ద్వారా సామాజిక చైతన్యాన్ని పొందుతారు సిద్ధాంతాల ద్వారా కాకుండా వాస్తవ పరిస్థితులను తెలుసుకోవడం ద్వారా సిద్ధాంతాన్ని సమీక్షించగలరు
- ఆధునిక తెలుగు కల్పనా సాహిత్యం ద్వారా సామాజిక సాంస్కృతిక రాజకీయ చైతన్యాన్ని పొందుతారు

ఆధునిక కవిత పరిచయం

- వర్ధమాన తెలుగు జీవనంలో ఒక భాగమైన ఆధునిక తెలుగు కవిత్వం తీరు తెన్నులను సాందర్యాన్ని విశ్లేషణాత్మకంగా అవగాహన చేసుకోగలరు.
- దేశభక్తి సామాజిక అసమానతల నివారణ మానతవాదం మొదలైన భావాలను పెంపొందించుకోగలరు
- సున్నితమైన భావనను ఉపయోగిస్తూ ఉత్తమ భావాలను ప్రకటించే సామర్థ్యాన్ని అందుకోగలరు.
- వ్యవహారిక భాషలో సామాజిక చైతన్యాన్ని ప్రోత్సహించే కవిత్వం రాయడానికి ప్రేరణ పొందగలరు.
- ఆధునిక కాలంలోని కవిత్వంలోనూ వస్తువులోనూ భావంలోనూ వచ్చిన మార్పును గ్రహించగలరు శిల్పంలో స్వేచ్ఛను భావ ప్రకటనలో వచ్చిన మార్పులను సమాజానికి భాష దగ్గర కావడానికి అవగాహన చేసుకోగలరు.

SEMESTER-III

సృజనాత్మక రచన

- తెలుగు సాహిత్య అభ్యసన ద్వారా నేర్చుకున్న నైపుణ్యాలను సృజనాత్మక నైపుణ్యాలుగా మార్చుకోగలరు
- విద్యార్థులు భాషా తత్వాన్ని భాష యొక్క అవశ్యకతను భాష యొక్క ప్రాధాన్యాన్ని గుర్తిస్తారు వాగ్రూప లిఖిత రూప వ్యక్తీకరణ ద్వారా భాషా నైపుణ్యాలను మెరుగుపరుచుకోగలరు
- ప్రాచీన పద్య రచనతో పాటు ఆధునిక కవిత కథ వ్యాసం మొదలైన సాహితీ ప్రక్రియ నిర్మాణాలకు సంబంధించిన సిద్ధాంత విషయాలను నేర్పడంతో పాటు వారిలో రచన నైపుణ్యాలను పెంపొందించుకోగలరు
- సృజన రంగం ప్రసార మాధ్యమ రంగాల్లో ఉపాధి అవకాశాలను అందిపుచ్చుకోగలరు.
- అనువాద రంగంలో నైపుణ్యాన్ని సంపాదించగలరు.

ప్రాచీన తెలుగు సాహిత్య చరిత్ర

- తెలుగువారి చరిత్రలో భాగమైన తెలుగు సాహిత్య చరిత్ర చిరకాలంగా తెలుగువారు ఆచరిస్తున్న సంస్కృతిలో ఎలా అంతర్భాగమైందో తెలుసుకోగలరు.
- తెలుగు సాహిత్య క్రమ పరిణామాన్ని గురించిన స్థూలమైన అవగాహన పొందుతారు.

- తెలుగులో ఉన్న రెండు సాహిత్య సంప్రదాయాలైన మౌఖిక లిఖిత రూపాలను గుర్తిస్తారు వివిధ సాహిత్య ప్రక్రియల వికాసాన్ని అవగాహన చేసుకుంటారు.
- కవులు తమ సృజనాత్మకత ద్వారా సృష్టించిన సాహిత్యాన్ని బోధించడం ద్వారా విద్యార్థులు సాహిత్యం పట్ల సంవేదనను అభివృద్ధిని విమర్శనాత్మక విశ్లేషణ శక్తిని పొందగలరు
- ఆయా శాస్త్రాల్లో కృషి చేసే వారికి ఆ రంగంలో విష విజ్ఞానం ఎలా అవసరమో తెలుసుకోగలరు .తెలుగు సాహిత్యం అవసరమని గుర్తిస్తారు.

SEMESTER-IV

ఆధునిక తెలుగు సాహిత్య చరిత్ర

- ఆంగ్లభాష ప్రభావం వల్ల వచ్చిన పరిణామాల ఫలితంగా ఏర్పడిన ఆధునిక తెలుగు సాహిత్య స్వరూప స్వభావాలను తెలుసుకోగలరు.
- సామాజిక మార్పులు సాహిత్యంలో ఎలా ప్రతిబింబించింది గ్రహిస్తారు.
- ఆధునిక సాహితీ ప్రక్రియలను అవగాహన చేసుకోవడం ద్వారా సమాజంపై సాహిత్య ప్రభావాన్ని తెలుసుకోగలరు
- మార్క్సిజం కారణంగా ప్రపంచవ్యాప్తంగా వచ్చిన భావ విప్లవాన్ని అవగాహన చేసుకోగలరు.
- సమకాలీన ఆధునిక కవితా ధోరణులను అవగాహన చేసుకోవడం ద్వారా అస్తిత్వ వాదాల పట్ల తమదైన వైఖరిని ఏర్పరచుకోగలరు

SEMESTER-V

SEMESTER-VI

DEPARTMENT OF HISTORY

SEMESTER -I

ANCIENT INDIAN HISTORY & CULTURE

- OC1: Identify and define various kinds of sources and understand how history books are Shaped
- OC2: Compare and contrast various stages of progress from IVC to Vedic age and analyze the Jain, Buddhist and Vedic faiths
- OC3: Increase the awareness and appreciation of Transition from Territorial States to Emergence of Empires
- OC4: Analyze the emergence of the Mauryan and Gupta empires during the “classical age” in India
- OC5: Evaluate the key facets of ancient society, polity and culture in South India—the feudalism, and the rise of technology and commerce.

- OC6: Critically examine the nature of monarchic rule and develop an comprehensive understanding of cultural evolution during ancient period

SEMESTER -II

MEDIEVAL INDIAN HISTORY & CULTURE

- CO1: Understand the socio, economic and cultural conditions of medieval India
- CO2: Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans
- CO3: Explain the Administration and art and architecture of Vijayanagar Rulers, Mughals and also analyze the rise of the Marathas and the contribution of Shivaji
- CO4: Evaluate the establishment of the British rule in India and understand the dangerous consequences disunity at all levels
- CO5: Analyze the emergence of composite culture in Indian
- CO6: Visualize where places are in relation to one another through map pointing

SEMESTER-III

MODERN INDIAN HISTORY & CULTURE

- CO1: Unearth the true nature of the British rule and its disastrous impact on Indian economy and society
- CO2: Gauge the disillusionment of people against the Company's rule even during the early 19th century
- CO3: Assess the causes and effects of Reformation movements and also inspire the public to overthrow inequalities of the present day society
- CO4: Rise above petty parochial issues after understanding the sacrificial saga of freedom struggle.
- CO5: Evaluate the undercurrent of communal politics that led to India's partition and identify the enemies of India's integrity and sovereignty

SEMESTER-IV

HISTORY & CULTURE OF ANDHRA

- CO1: Interpret social and political and cultural transformation from medieval to modern Andhra

- CO2: Relate key historical developments during medieval period occurring in coastal Andhra and Telangana regions and analyze socio - political and economic changes under QutbShahi rulers
- CO3: Understand gradual change, or change in certain aspects of society in Andhra, rather than rapid or fundamental changes Explain how the English East India Company became the most dominant power and outline the impact of colonial policies on different aspects in Andhra
- CO4: Outline the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues

SEMESTER-V

Internship for B.sc students

- CO1: To learn about real time work in any organization

SEMESTER-VI

Course 6B: Tourism and Hospitality Services

1. Understand hospitality as a career
2. Inculcate interpersonal skills
3. Develop the ability for multitasking and crisis management
4. Understands the spirit of teamwork
5. Acknowledge the importance of guest service and satisfaction

Course 7B: Tourism Guidance and Operating Skills

1. Acquire tour guiding, operating and soft skills
2. Understand different situations under which one has to work
3. Cultivate cultural awareness and flexibility
4. Understand and apply team spirit
5. Plan and organize tour operations efficiently

DEPARTMENT OF ECONOMICS

COURSE OUTCOMES

SEMESTER - I

PAPER - I : MICRO ECONOMIC ANALYSIS

- CO1: Attaining the knowledge about the scope, definitions of Micro Economics and various laws and principles of microeconomic theory under consumption.
- CO2: Understanding various terms and concepts relating to microeconomic analysis with the help of examples of real life.
- CO3: Critically examines using analysis and evaluation various laws and principles of microeconomic analysis and market conditions.
- CO4: Draws critical diagrams and graphs to explain and examine the application of various laws and principles of microeconomic analysis.

SEMESTER - II

PAPER - II : MACRO ECONOMIC ANALYSIS

- CO1 : Various concepts, definitions, laws and principles of macroeconomic theory with reference to income, employment, money, banking and finance.
- CO2 : Understanding the various concepts, components and methods of measuring national income, laws and principles and theories relating to income, employment, consumption, investment, money, price-level and phases of trade cycles and functions of commercial banks and central banks, creation and control of credit.
- CO3 : Critically examines using analysis and evaluation of various theories of macroeconomics with reference to their assumptions, implications and applicability and Empirical evidence of Consumption and Investment Functions and factors influencing them.
- CO4 : Draws critical formulae, diagrams and graphs related to consumption and investment functions; concepts of multiplier and accelerator; price indices, inflation and trade cycles

SEMESTER - III

PAPER - III : DEVELOPMENT ECONOMICS

- CO1: Various concepts and definitions and indicators relating to economic growth and Development including recent developments
- CO2 : Understanding the Distinction between growth and development with examples and the Characteristics of developing economies and Choice of Techniques and a few important models and strategies of growth

- CO3 : Critically examines using analysis and evaluation of the theoretical aspects of a few models and strategies of economic growth and role and importance of various financial and other institutions in the context of India's economic development.
- CO4 : Draws critical diagrams and graphs to explain the models and strategies and to highlight empirical evidences to support the strategies

SEMESTER - IV

PAPER - IV : ECONOMIC DEVELOPMENT- INDIA AND ANDHRA PRADESH

- CO1 : Leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses and Objectives, outlays and achievements of economic plans and growth strategies.
- CO2 : Understanding about the general problems of poverty and unemployment and Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds. Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance.
- CO3 : Leading issues of current importance relating to India and AP economy, major policies and programs related to Covid- 19 and its impact on Indian economy
- CO4 : To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critical evaluation

SEMESTER - IV

PAPER - V : STATISTICAL METHODS FOR ECONOMICS

- CO1 : The definitions, terms and their meaning relating to statistical methods various formulae used to measure central tendency, correlation regression and Indices.
- CO2 : Understanding the Importance of statistics and its applications, The method of classification of primary data and the Uses of Correlation and Regression analysis, time series and index numbers in economic analysis
- CO3 : Analysis and evaluation of different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices to interpret data and suggest solutions to economic problems

- CO4 : Draws critical diagrams and graphs of Histogram, Frequency Polygon and Frequency Curve and Different types of Bar diagrams and Pie Diagram and its uses in economic analysis.

SEMESTER - V

Internship for B.A students

- CO1: To learn about real time work in any organization

SEMESTER - VI

PAPER – VI A : RURAL ENTREPRENEURSHIP

- CO1 : Explain the basic theories and essentials of entrepreneurship;
- CO2 : Identify and analyze the entrepreneurship opportunities available in local rural area;
- CO3 : Apply the theories of entrepreneurship to the conditions of local rural area and formulate appropriate business ideas;
- CO4: Demonstrate practical skills that will enable them to start rural entrepreneurship.

PAPER – VII A : FARMER PRODUCER ORGANIZATION

- CO1 : Explain the concept and organization of FPO and its economic activities.
- CO2 : Identify and analyze the opportunities related to FPO in local rural areas.
- CO3 : Apply the concepts to the identified FPO related opportunities available in the local area and formulate business ideas.
- CO4 : Demonstrate practical skills that will enable them to start a FPO or earn wage employment in it.

DEPARTMENT OF POLITICAL SCIENCE

SEMESTER -I

INTRODUCTION TO POLITICAL SCIENCE

- CO1: Have solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies.
- CO2: To Understand Modern State and welfare state

- CO3: Understand concepts intrinsic to the study of Political Science.

SEMESTER -II

- CO1: Understand and analyze organs and forms of government along with a deep insight into the various agents involved in the political process .
- CO2: To understand the classification of the constitution .
- CO3: Types of Democracy
- CO4: Political parties system in democracy.

SEMESTER-III

- CO1: Understand the composition of and functioning of the Union Government as well as the State Government and finally .
- CO2: To understand fundamental rights and duties.
- CO3: Acquaint themselves with the judicial system of the country and its emerging trends such as judicial reforms.
- CO4: Acquire knowledge about the historical background of Constitutional development in India, appreciate philosophical foundations and salient features of the Indian Constitution.
- CO5: Understand the National movement.

SEMESTER-IV

INDIAN POLITICAL PROCESS

- CO1: Evaluate the electoral system of the country and to identify the areas of electoral reforms.
- CO2: Know the constitutional base and functioning of local governments with special emphasis on 73rd & 74th Constitutional Amendment Acts.
- CO3: Propose theoretical outline alternate models .
- CO4: Role of caste ,religion, language and regionalism in India .

WESTERN POLITICAL THOUGHT

- CO1: Critically analyze the evolution of western political thought .
- CO2: Understand the fundamental contours of classical, western political philosophy, basic features of medieval political thought.

- CO3: Acquainted with the Liberal and Marxist philosophy and analyze some trends in Western Political Thought.
- CO4: To understand Theory of utility , law and reforms

SEMESTER-V

Internship for B.A students

- CO1:To learn about real time work in any organization.

SEMESTER-VI

ELECTORAL POLITICS AND VOTING BEHAVIOR

- CO1: Aware of the role of new media and technology in election campaigns.
- CO2: Provide an overview on voter turnout, voting behavior in India.
- CO3: Develop an understanding of the required skills for data collection, research in election management.
- CO4: Understand the political issues in Electoral Politics.

LEGISLATIVE PROCEDURES AND PRACTICES

- CO1: Make familiar with legislative procedures and practices.
- CO2: Understand complex policy issues, draft new legislation, analyze ongoing bills, make speeches and floor statements.
- CO3: Provide skills to be part of a legislative support team and expose them to real life legislative work.
- CO4: Enhance understanding of procedures, practices, different committees and motions in the House.Budgeting process

DEPARTMENT OF COMPUTER SCIENCE

SEMESTER -I

PROBLEM SOLVING IN C

- On Successful completion of this course students shall be able to:
CO1: To learn and implement Programming in C from basic of control Structure to concept of arrays and functions.
CO2: To learn and design simple applications using C.

SEMESTER -II

DATA STRUCTURES USING C

- On Successful completion of this course students shall be able to:
 - CO1: To implement the Stack operations using an array and Linked List
 - CO2: To implement the Queue operations using an array and Linked List
 - CO3: To implement the Sorting Algorithms
 - CO4: To implement Depth First Search graph traversals algorithm and Breadth First Search graph traversals algorithm.

SEMESTER-III

DATABASE MANAGEMENT SYSTEMS

- CO1: To understand the role of database management systems in organization
- CO2: To understand and successfully apply logical database design principles including E-R diagrams and database normalization
- CO3: To perform PL/SQL programing concepts using cursor management,error handling and packages.

SEMESTER-IV

OBJECT ORIENTED PROGRAMMING THROUGH JAVA

- CO1:To learn and OOPs concepts in Java.
- CO2:To gain knowledge regarding basic structure of Java Program,Control statements arrays ,strings applets and connectivity of JDBC in java.
- CO3:To gain knowledge to implement small projects by using Java Programming

OPERATING SYSTEMS

- CO1: To implement Round Robin CPU Scheduling algorithm
- CO2: To implement SJF, FCFS CPU Scheduling algorithm
- CO3: To implement Bankers Algorithm for Deadlock Avoidance
- CO4: To implement Bankers Algorithm Deadlock Prevention.

SEMESTER-V

Web Interface Designing Technologies

- CO1: Create a basic website with the help of HTML and CSS.
- CO2: Acquire the skill of installing word press and various plugins of Word press.
- CO3: Create a static website with the help of Word press.
- CO4: Create an interface for a dynamic website.

- CO5: Apply various themes for their websites using Word press.

Web Applications Development using PHP & MYSQL

- CO1: To implement the Programs by applying concepts and error handling techniques of PHP.
- CO2: Create an interactive and dynamic website.
- CO3: Create a website with reports generated from a database.
- CO4: To create an interactive website for e-commerce sites like online shopping, etc.

SEMESTER-VI

Internship for B.sc students

- CO1: To learn about real time work in any organization.

DEPARTMENT OF MATHEMATICS

SEMESTER -I

DIFFERENTIAL EQUATIONS

- CO1: After successful completion of this course, the student will be able to; Solve linear differential equations
- CO2: Convert non exact homogeneous equations to exact differential equations by using integrating factors.
- CO3: Know the methods of finding solutions of differential equations of the first order but not of the first degree.
- CO4: Solve higher-order linear differential equations, both homogeneous and non homogeneous, with constant coefficients.
- CO5: Understand the concept and apply appropriate methods for solving differential equations.

SEMESTER -II

SOLID GEOMETRY

- CO1: get the knowledge of planes.
- CO2: basic idea of lines, sphere and cones.
- CO3: understand the properties of planes, lines, spheres and cones.
- CO4: express the problems geometrically and then to get the solution.

SEMESTER-III

ABSTRACT ALGEBRA

- CO1: .acquire the basic knowledge and structure of groups, subgroups and cyclic groups.
- CO2: get the significance of the notation of normal subgroups.
- CO3: get the behavior of permutations and operations on them.
- CO4: study the homomorphisms and isomorphisms with applications.
- CO5: understand the ring theory concepts with the help of knowledge in group theory and to prove the theorems.
- CO6: understand the applications of ring theory in various fields.

SEMESTER-IV

REAL ANALYSIS

- CO1: get a clear idea about the real numbers and real valued functions.
- CO2: obtain the skills of analyzing the concepts and applying appropriate methods for testing convergence of a sequence/ series.
- CO3: test the continuity and differentiability and Riemann integration of a function.
- CO4: know the geometrical interpretation of mean value theorems.

LINEAR ALGEBRA

- CO1: understand the concepts of vector spaces, subspaces, bases, dimension and their properties
- CO2: understand the concepts of linear transformations and their properties
- CO3: apply Cayley- Hamilton theorem to problems for finding the inverse of a matrix and higher powers of matrices without using routine methods
- CO4: learn the properties of inner product spaces and determine orthogonality in inner product spaces.

SEMESTER-V

Multiple integrals and Applications of Vector Calculus

- CO1: Learn multiple integrals as a natural extension of a definite integral to a function of two variables in the case of double integral / three variables in the case of triple integral.
- CO2: Learn applications in terms of finding surface area by double integral and volume by triple integral.

- CO3: Determine the gradient, divergence and curl of a vector and vector identities.
- CO4: Evaluate line, surface and volume integrals.
- CO5: understand relation between surface and volume integrals (Gauss divergence theorem), relation between line integral and volume integral (Green's theorem), relation between line and surface integral (Stokes theorem)

Integral transforms with applications

- CO1: Evaluate Laplace transforms of certain functions, find Laplace transforms of derivatives and of integrals.
- CO2: Determine properties of Laplace transform which may be solved by application of special functions namely Dirac delta function, error function, Bessel function and periodic function.
- CO3: Understand properties of inverse Laplace transforms, find inverse Laplace transforms of derivatives and of integrals.
- CO4: Solve ordinary differential equations with constant/ variable coefficients by using Laplace transform method.
- CO5: Comprehend the properties of Fourier transforms and solve problems related to finite Fourier transforms.

SEMESTER-VI

Internship for B.sc students

- CO1: To learn about real time work in any organization.

DEPARTMENT OF RURAL DEVELOPMENT

SEMESTER -I

Elements of Rural Development

- CO 1 : Remember the basic concepts related to rural development.
- CO 2 : Develop a proper understanding of the rural situation and the need for rural development in India.
- CO 3 : Analyze the approaches to rural development adopted so far in India and evaluate the relevance to the current situation in rural areas.
- CO 4 : Gain knowledge on major problems in the rural social sector as well as in the rural credit and marketing setup.

SEMESTER -II

Rural Development Programmes in India

- CO 1 : Understand the context in which rural development programmes were implemented so far in India under different categories/typologies.
- CO2:Analyze the lessons that could be learnt from various rural development programmes
- CO3:Critically evaluate the relevance and effectiveness of the ongoing rural development mes.
- CO4:Gain practical knowledge on certain rural development programmes being implemented at the grass roots level.
- CO5:Evaluate the impact of certain rural development programmes being implemented at grass roots level.

SEMESTER-III

Indian Rural Economic Scene

- CO1:Understand the dynamics of population growth and workforce in rural areas.
- CO2:Gain knowledge on the process of development of different sectors of rural economy, viz. agriculture , rural industries and business and services sector.
- CO3: Analyze the relevance and effectiveness of efforts aimed at bringing about institutional changes in agriculture, rural industries and rural infrastructure.
- CO4:Analyze the problems and prospects of MSMEs.
- CO5:Critically evaluate the efforts aimed at conservation of land, water and forest resources through watershed management and developing non-conventional sources of energy.

SEMESTER-IV

IV-PAPER-Indian Rural Social Scene

- CO1:Understand the role and functioning of rural social institutions and dynamics of the caste system in rural communities.
- CO2:Gain knowledge on factors and processes of social change in rural India.
- CO3:Analyze the rural social problems in real-life settings.

- CO4:Critical evaluation of the impact of measures to solve rural social problems. Critical evaluation of social legislative measures for marginalized sections of the society.

SEMESTER-IV

V-PAPER-Rural Development Planning and Management

- CO1:Remember the concepts related to Development Planning
- CO2:Understand the dynamics of Rural Development planning and administrative structure at different levels.
- CO3:Analyse the need for and usefulness of project planning for promoting people's participation in the development process.
- CO4: Critically evaluate the role of GOs, NGOs, PRIs and CBOs in rural development.
- CO5:Analyse the role of participatory approaches both in formulating and evaluating rural development projects.

SEMESTER V

VI-PAPER-Natural Resource Management for Rural Development

- CO1:Understand the interaction between man and nature in resource development;
- CO2:Learn in managing and conservation of natural resources;
- CO3:Identify the alternative energy sources;
- CO4:Analyze the problems of rural environment and exploring the remedies; and
- CO5:Attaining knowledge in making the participation of people in managing the natural resources.

VII-PAPER- Non-Governmental Organizations and Rural Development

- CO1:Able to know about the evolution of Non Governmental Organisations.
- CO2:Acquire the knowledge on the role of NGOs in Rural Development.
- CO3:Understand how to establish an NGO.
- CO4:Learn NGO activities in Rural Development.
- CO5:Identifying the Sources for NGOs funding.

SEMESTER-VI

HUMAN RESOURCE DEVELOPMENT (ELECTIVE PAPER)

- CO1:To understand the importance of HRD rural developments

- CO2:To analyse the importance of human capital formation and gain the knowledge significance of HRD in rural development
- CO3:To assess the dimensions of HRD for rural development i.e like health Education skill development
- CO4:To analyse the Human Development index (HDI) concept and measuring methods of human development in india , State and district level
- CO5:To understand the role of institutions in promotion of HRD in different areas through CAPART, NIRD .

AGRI- ECONOMICS AND FARM MANAGEMENT (CLUSTER ELECTIVE-1)

- CO1:To gain the knowledge of importance Nature and scope of Agricultural economics
- CO2:To analyse the cropping pattern and factors of cropping pattern trends in rural India
- CO3:To assess the importance of farm management and gain the knowledge of risk and uncertainty of agriculture
- CO4:To understand the principles of farm management and law of diminishing Returns , product-product- relations
- CO5:To assess the functions of farm management and importance of records and accounts in management .

AGRICULTURAL MARKETS (CLUSTER ELECTIVE -2)

- CO1:To understand and gain the knowledge about the importance Nature and scope of Agricultural markets
- CO2:To aware the importance of transportation for agricultural markets methods of transports role of Gram Sadak Yojana scheme for rural transport
- CO3:To understand the importance of storage and grading system and traditional methods in agri Markets and also aware the new methods of agri markets and importance of AGMARK
- CO4:To assess and gain the knowledge about the sources of agricultural marketing information for farmer community and their utilization
- CO5:To understand the important channels for agricultural product disposals in rural India and role of the regulated market .

AGRICULTURAL EXTENSION (CLUSTER ELECTIVE -3)

- CO1:To understand the concept of Agricultural extensions And it is importance in rural areas
- CO2:To analyse the importance of Innovation and new advance methods in

adoption to agriculture and also the problems in adoption the technology

- CO3:To understand the role of institutions in research extensions of agriculture
- CO4:To analyse the sources of Agricultural Extension and motivation methods for agricultural development
- CO5:AUDIO , VIDEO ,TECHNOLOGY and Field visits of Agri officers , farmer communities and utilization of farmers in rural areas

DEPARTMENT OF HINDI

FIRST SEMESTER: (Paper-1)

Paper Name: गद्य संदेश एवं कथा लोक-व्याकरण-कार्यालयीन हिंदी-पत्र लेखन

उद्देश्य (Objectives)

विषय परिणाम (Subject Outcomes)

- v छात्र गद्य पाठों को प्रवाह पूर्ण पढ़कर भाव आत्मसात कर सके। - v छात्र कहानियों को पढ़कर आनंद ले सके और मिलने वाली शिक्षा से अपने जीवन में और व्यक्तित्व में सुधार ला सके। - v छात्र बिना भाषा दोष और व्याकरण दोषों के साथ लिख सके और बोल सके। - v छात्र कार्यालयों में प्रयोग की जाने वाली अंग्रेजी शब्दावली को हिंदी में समझ सके। - v छात्र पत्र लेखन शैली से परिचित हो सके और लिख सके।	- v छात्र गद्य निबंध पाठों को पढ़कर अर्थ ग्रहण कर सकता है। छात्र गद्य पाठ को प्रवाह पूर्ण पढ़ सकता है। - v छात्र कहानी लेखन कला से परिचित होता है और पढ़कर मनोरंजन भी लेता है। कहानी से मिलने वाली शिक्षा से अपने व्यक्तित्व को सुधार सकता है। - v छात्र बिना व्याकरण दोषों से लिखने में और बोलने में सक्षम बन सकता है। - v छात्र कार्यालयों में प्रयोग की जाने वाली अंग्रेजी शब्दों का हिंदी रूप समझ कर प्रयोग कर सकता है। - v छात्र सभी प्रकार के पत्र लिख सकता है। जैसे- व्यक्तिगत पत्र, आवेदन पत्र और शिकायती पत्र आदि।
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SECOND SEMESTER: (Paper -2)

Paper Name: गद्य संदेश एवं कथा लोक-व्याकरण- अंग्रेजी और हिंदी शब्दावली-पत्र लेखन

उद्देश्य (Objectives)

विषय परिणाम (Subject Outcomes)

- v छात्र गद्य पाठों को प्रवाह पुर्ण पढ़कर भाव आत्मसात कर सके। - v छात्र कहानियों को पढ़कर आनंद ले सके और मिलने वाली शिक्षा से अपने जीवन में और व्यक्तित्व में सुधार ला सके। - v छात्र बिना भाषा दोषों के साथ लिख सके और बोल सके। - v छात्र कार्यालयों में प्रयोग की जाने वाली अंग्रेजी शब्दावली को हिंदी में समझ सके। - v छात्र पत्र लेखन शैली से परिचित हो कर लिख सके।	- v छात्र गद्य निबंध पाठों को पढ़कर अर्थ ग्रहण कर सकता है। छात्र गद्य पाठ को प्रवाह पुर्ण पढ़ कर भाव ग्रहण कर सकता है। - v छात्र कहानी लेखन कला से परिचित होता है और पढ़कर मनोरंजन भी लेता है। कहानी से मिलने वाली शिक्षा से अपने व्यक्तित्व को सुधार सकता है। - v छात्र बिना व्याकरण दोषों से लिखने में और बोलने में सक्षम बन सकता है। - v छात्र कार्यालयों में प्रयोग की जाने वाली अंग्रेजी शब्दों का हिंदी रूप समझ कर प्रयोग कर सकता है। वाक्यों को अंग्रेजी से हिंदी में अनुवाद कर सकता है। - v छात्र सभी प्रकार के पत्र लिख सकता है। जैसे- व्यक्तिगत पत्र, आवेदन पत्र और शिकायती पत्र आदि।
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THIRD SEMESTER: (Paper-3)

Paper Name: काव्य दीप एवं हिंदी साहित्य का इतिहास-साधारण निबंध-अनुवाद-प्रयोजनमूलक हिंदी

उद्देश्य (Objectives)

विषय परिणाम (Subject Outcomes)

- v छात्र हिंदी के आधुनिक एवं प्राचीन कवियों से और काव्यों से परिचित हो सके। छात्र कवियों की शैलियों से परिचित हो सकें। - v छात्र हिंदी साहित्य से संक्षिप्त परिचय प्राप्त कर सके। छात्र हिंदी साहित्य इतिहास के भक्ति काल का पूर्ण ज्ञान प्राप्त कर सके। - v छात्र साधारण विषयों पर अपने विचार व्यक्त करते हुए बिना व्याकरण दोषों से निबंध लिख सके। - v छात्र अंग्रेजी से हिंदी में अनुच्छेद अनुवाद करने में सक्षम बन सके। - v छात्र हिंदी भाषा से अपने जीवन में लाभ उठा सके। छात्र कार्यालय के परिपत्र, कार्यालय ज्ञापन और अधिसूचना पत्र लिख सके।	- v छात्र हिंदी के आधुनिक और प्राचीन कवियों के काव्य पढ़ता है। काव्य शैलियों के बारे में ज्ञान प्राप्त करता है। - v छात्र हिंदी साहित्य के इतिहास से परिचय प्राप्त करता है। छात्र को हिंदी साहित्य इतिहास के भक्ति काल से पूर्ण परिचय प्राप्त होता है। भक्ति काल की परिस्थितियों के बारे में समझ पा सकता है। - v छात्र साधारण विषयों पर अपने विचार व्यक्त कर सकता है और बिना व्याकरण दोषों से साधारण निबंध लिख सकता है। - v छात्र भावानुवाद और शब्दानुवाद करने में सकुशल बन सकता है। - v छात्र हिंदी से अपने जीवन में लाभ उठा सकता है और कार्यालयों में विभिन्न कार्यालय पत्र लिख सकता है।
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DEPARTMENT OF BOTANY

SEMESTER -I

(Fundamentals of Microbes and Nonvascular Plants)

- CO1: Demonstrate the techniques of use of lab equipment, preparing slides and identify the material and draw diagrams exactly as it appears.
- CO2: Observe and identify microbes and lower groups of plants on their own.
- CO3: Demonstrate the techniques of inoculation, preparation of media etc.
- CO4: Identify the material in the permanent slides etc.

SEMESTER-II

(Basics of Vascular plants and Phytogeography)

- CO1: Demonstrate the techniques of section cutting, preparing slides, identifying of the material and drawing exact figures.
- CO2: Compare and contrast the morphological, anatomical and reproductive features of vascular plants.
- CO3: Identify the local angiosperms of the families prescribed to their genus and species level and prepare herbarium.
- CO4: Exhibit skills of preparing slides, identifying the given twigs in the lab and drawing figures of plant twigs, flowers and floral diagrams as they are.
- CO5: Prepare and preserve specimens of local wild plants using herbarium techniques.

SEMESTER-III

(Anatomy and Embryology of Angiosperms, Plant Ecology and Biodiversity)

- CO1: Get familiarized with techniques of section making, staining and microscopic study of vegetative, anatomical and reproductive structure of plants.
- CO2: Observe externally and under microscope, identify and draw exact diagrams of the material in the lab.
- CO3: Demonstrate application of methods in plant ecology and conservation of biodiversity and qualitative and quantitative aspects related to populations and communities of plants.

SEMESTER-IV

(Plant Physiology and Metabolism)

- CO1: Conduct lab and field experiments pertaining to Plant Physiology, that is, biophysical and biochemical processes using related glassware, equipment, chemicals and plant material.
- CO2: Estimate the quantities and qualitative expressions using experimental results and calculations
- CO3: Demonstrate the factors responsible for growth and development in plants.

(Cell Biology, Genetics and Plant Breeding)

- CO1: Show the understanding of techniques of demonstrating Mitosis and Meiosis in the laboratory and identify different stages of cell division.
- CO2: Identify and explain with diagram the cellular parts of a cell from a model or picture and prepare models
- CO3: Solve the problems related to crosses and gene interactions.
- CO4: Demonstrate plant breeding techniques such as emasculation and bagging

SEMESTER-V

Plant Tissue Culture

- CO1: List out, identify and handle various equipment in plant tissue culture lab.
- CO2: Learn the procedures of preparation of media.
- CO3: Demonstrate skills on inoculation, establishing callus culture and Micro propagation.
- CO4: Acquire skills in observing and measuring callus growth.
- CO5: Perform some techniques related to plant transformation for secondary Metabolite production.

Mushroom Cultivation

- CO1: Identify and discriminate different mushrooms based on morphology.
- CO2: Understand facilities required for mushroom cultivation.
- CO3: Demonstrate skills on preparation of spawn, compost and casing material.
- CO4: Exhibit skills on various cultivation practices for an edible mushroom.

DEPARTMENT OF ENGLISH

SEMESTER-I

Paper-I: Functional English

- CO1: Strong foundation to the learners in primary language skills and prepares them for the subsequent professional modules.
- CO2: The learners who equip themselves with these skills find themselves coping with the demands of the professional environment.
- CO3: The module reinforces the language skills of the learners with various advanced level activities.
- CO4: The module reinforces the language skills of the learners with various advanced level activities.

SEMESTER-II

Paper-II: Computer Skills for Language Development

- CO1: Aims to create understanding about the functioning of computers and its components.
- CO2: It enables the students to learn web skills.
- CO3: The module focuses on the advantages of using computers for language-oriented jobs.
- CO4: Job opportunities like Content Generators, Editors, Bloggers, BPO Executives, etc.

SEMESTER-III

Paper-III: e-Writing Objectives

- CO1: Helps the learners to acquire all the knowledge and skills required to become an effective content writer.
- CO2: Content writing offers attractive career opportunities to the learners who have flair, skill and the ability to write.
- CO3: The module prepares the learners to the online writing discourses and makes them potential writers.

SEMESTER-IV

Paper-IV: Life Skills for Global Employment

- CO1: Enable to acquire and employ these skills in their life along with their educational qualifications.

- CO2: Will have an edge over their peers either in educational and employment opportunities.
- CO3: The module deals with a few important personal and professional skills.
- CO4: Enable the learners to meet the challenges of life and achieve their goals.

Paper-V: Editing for Journalism, Translation and Subtitling

- CO1: Provides skills in editing and proofreading for academic and journalistic purposes.
- CO2: The strong writing skills that the learners acquire, will help them find job opportunities in the following areas: The fields of Film, Video, T.V and Multimedia require the technical skills of Translation.
- CO3: Technical documentaries, Interviews, News Reports, subtitling etc., from Telugu to English vice versa provide good employment.

SEMESTER-V

Paper-SEC(Elective) 6A: Translation and Subtitling

- CO1: Comprehend the skills of translation in reviewing the films, video, TV, News Reports etc.
- CO2: Get specific skills of TV and Cinema Subtitling Industry.
- CO3: Practice the skills of translation of documentaries, films, interviews, cartoons, news reports etc...
- CO4: Acquire critical knowledge of the rules and specifications of translation.
- CO5: Demonstrate the necessary skills to work for the films, Interviews, News Reports etc.

Paper-SEC(Elective) 7A: Digital Skills of English

- CO1: Comprehend the digital skills of English
- CO2: Get specific skills of English through internet, Online Learning Tools of English
- CO3: Practice the skills of MOOCs, OER etc...
- CO4: Acquire critical knowledge of the rules and specifications of Research
- CO5: Demonstrate the skills of Video Making etc.
- CO6: Get thoroughness of the skills of Presentation, Communication etc...