ASD Government Degree College for Women (A), Kakinada

COURSE OUTCOMES

DEPARTMENT OF COMPUTER SCIENCE

Paper : I

Course: PROBLEM SOLVING IN C

Course Outcomes:

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

1. Understand the fundamentals of C programming.
2. Make use of loops, decision making statements and functions to solve the problem.
3. Implement different Operations on Arrays.
4. Understand Pointers, Structures and Unions.
5. Implement File Operations for a given application using C file handling functions.

PROBLEM SOLVING IN C Lab

Course Outcomes:

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

1. Implement programs using fundamental features of C Language.
2. Solve problems with the use of loops, decision making statements and functions.
3. Implement programs performing various Operations on Arrays.

Paper : II

Course: DATA STRUCTURES USING C

Course Outcomes:

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

1. Understand fundamental concepts of Data structures and to design Linked lists.
2. Implement linear data structures stacks, queues.
3. Design non-linear data structures like trees, graphs and implement their operations.
4. Compare and Contrast different searching and sorting techniques.
5. Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal
6. Design and develop programs using various data structures

Course: DATA STRUCTURES USING C LAB

Course Outcomes:

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

1. Implement various operations on arrays
2. Implement Linked list and Perform operations on it.
3. Make use of arrays and linked lists to implement Stack and Queues.
4. Implement various traversals on Trees and Graphs.
5. Implement various shortest path algorithms.
6. Implement various searching and sorting techniques.

Paper : III

Course: DATA BASE MANAGEMENT SYSTEM

Course Outcomes:

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

1. Understand DBMS concepts, data models and Architecture.
2. Understand ER concepts and ER mapping to relational model
3. Improve the database design by normalization.
4. Make use of SQL to retrieve and maintain relational database.
5. Illustrate various constructs in PL/SQL.

Course: DATA BASE MANAGEMENT SYSTEMS LAB

Course Outcomes:

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

1. Design database and ER diagrams for the real world scenarios
2. Understand ER concepts and ER mapping to relational model
3. Make use of SQL and PL/SQL to efficiently retrieve and maintain relational database.

Paper : IV

Course: OBJECT ORIENTED PROGRAMMING THROUGH JAVA

Course Outcomes:

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

1. Understand and Apply Object Oriented features and understand the basics of Java.
2. Develop problem-solving and programming skills using OOP concepts.
3. Apply the concepts of inheritance and to create arrays, strings.
4. Able to demonstrate Exception Handling and Multithreading.
5. Develop efficient Java applets and applications using OOP concepts.

Course: OBJECT ORIENTED PROGRAMMING USING JAVA LAB

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

1. Apply OOP concepts to solve real time problems.
2. Make use of class, inheritance, interface and packages to develop solutions for complex problems.
3. Build java applications using Exception handling and Threads.

Paper : V

Course: OPERATING SYSTEMS

Course Outcomes:

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

1. Interpret the basic structure of OS and architectural components.
2. Compare and contrast various Process scheduling algorithms.
3. Analyze various mechanisms of Synchronization and the principles of deadlock.
4. Make use of paging and segmentation in Memory management.
5. Discuss the issues related to file system interface, implementation and disk management.

Course: OPERATING SYSTEMS LAB USING C/JAVA

Course Outcomes:

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

1. Implement Process Scheduling and Page Replacement Algorithms.
2. Implement Various File Organization schemes
3. Implement Deadlock Avoidance and prevention algorithms

Paper : 6A

Course : Web Interface Designing Technologies

1. Understand and appreciate the web architecture and services.
2. Gain knowledge about various components of a website.
3. Demonstrate skills regarding creation of a static website and an interface to dynamic website.
4. Learn how to install word press and gain the knowledge of installing various plugins to use in their websites.

Course :Web Interface Designing Technologies

Course Outcomes:

On successful completion of this practical course, student shall be able to:

1. Create a basic website with the help of HTML and CSS.
2. Acquire the skill of installing word press and various plugins of Word press.
3. Create a static website with the help of Word press.
4. Create an interface for a dynamic website.
5. Apply various themes for their websites using Word press.

Paper : 7A

Course :Web Applications Development using PHP & MYSQL

Course Outcomes:

Students after successful completion of the course will be able to:

1. Write simple programs in PHP.
2. Understand how to use regular expressions, handle exceptions, and validate data using PHP.
3. Apply In-Built functions and Create User defined functions in PHP programming.
4. Write PHP scripts to handle HTML forms.
5. Write programs to create dynamic and interactive web based applications using PHP and MYSQL.
6. Know how to use PHP with a MySQL database and can write database driven web pages.

Course:Web Applications Development using PHP & MYSQL Lab

On successful completion of this practical course, student shall be able to:

1. Write, debug and implement the Programs by applying concepts and error handling techniques of PHP.
2. Create an interactive and dynamic website.
3. Create a website with reports generated from a database.
4. Write programs to create an interactive website for e-commerce sites like online shopping, etc

DEPARTMENT OF ZOOLOGY

SEMESTER-I

Animal Diversity – Biology of Non chordates

Course Outcomes: By the completion of the course the graduate should able to –

CO1: Describe general taxonomic rules on animal classification

CO2: Classify Protozoa to Coelenterata with taxonomic keys

CO3: Classify Phylum Platyhelminthes to Annelida phylum using examples from parasitic adaptation and vermin composting

CO4: Describe Phylum Arthropoda to Mollusca using examples and importance of insects and Molluscans

CO5: Describe Echinodermata to Hemichordate with suitable examples and larval stages in relation to the phylogeny

SEMESTER-II

Animal Diversity – Biology of Chordates

Course Outcomes: By the completion of the course the graduate should able to –

CO1: Describe general taxonomic rules on animal classification of chordates

CO2: Classify Protochordata to Mammalian with taxonomic keys

CO3: Understand Mammals with specific structural adaptations

CO4: Understand the significance of dentition and evolutionary significance

CO5: Understand the origin and evolutionary relationship of different phyla from Prochordata to mammalian.

SEMESTER-III

Cell Biology, Genetics, Molecular Biology and Evolution

Course Outcomes: The overall course outcome is that the student shall develop deeper understanding of what life is and how it functions at cellular level. This course will provide students with a deep knowledge in Cell Biology, genetics , Molecular biology and Evolution and by the completion of the course the graduate shall able to–

CO1: To understand the basic unit of the living organisms and to differentiate the organisms by their cell structure.

CO2: Describe fine structure and function of plasma membrane and different cell organelles of eukaryotic cell.

CO3: To understand the history of origin of branch of genetics, gain knowledge on heredity, interaction of genes, various types of inheritance patterns existing in animals

CO4: Acquiring in-depth knowledge on various of aspects of genetics involved in sex determination, human karyo typing and mutations of chromosomes resulting in various disorder.

CO5: Understand the central dogma of molecular biology and flow of genetic information from DNA to proteins.

CO6: Understand the principles and forces of evolution of life on earth, the process of evolution of new species and apply the same to develop new and advanced varieties of animals for the benefit of the society.

SEMESTER-IV (paper-IV)

Animal Physiology, Cellular Metabolism and Embryology

Course Outcomes: This course will provide students with a deep knowledge in Physiology, Cellular metabolism and Embryology and by the completion of the course the graduate shall able to –

CO1: Understand the functions of important animal physiological systems including digestion, cardiorespiratory and renal systems.

CO2: Understand the muscular system and the neuro-endocrine regulation of animal growth, development and metabolism with a special knowledge of hormonal control of human reproduction.

CO3: Describe the structure, classification and chemistry of Biomolecules and enzymes responsible for sustenance of life in living organisms

CO4: Develop broad understanding the basic metabolic activities pertaining to the catabolism and anabolism of various Biomolecules

CO5: Describe the key events in early embryonic development starting from the formation of gametes upto gastrula ion and formation of primary germ layers.

SEMESTER –IV (paper –V)

Immunology and Animal Biotechnology

Course Outcomes: This course will provide students with a deep knowledge in immunology, and animal biotechnology and by the completion of the course the graduate shall able to –

CO1: To get knowledge of the organs of Immune system, types of immunity, cells and organs of immunity.

CO2: To describe immunological response as to how it is triggered (antigens) and regulated (antibodies)

CO3: Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.

CO4: Get familiar with the tools and techniques of animal biotechnology.

CO5: To trace the history and development of immunology

CO6: To provide students with a foundation in immunological processes

CO7: To be able to compare and contrast the innate versus adaptive immune systems and humoral versus cell-mediated immune responses

CO8: Understand the significance of the Major His to compatibility Complex in terms of immune response and transplantation

CO9: To provide knowledge on animal cell and tissue culture and their preservation

CO10: To empower students with latest biotechnology techniques like stem cell technology, genetic engineering, hyridoma technology, transgenic technology and their application in medicine and industry for the benefit of living organisms

CO11: To explain in vitro fertilization, embryo transfer technology and other reproduction manipulation methodologies.

CO12: To get insight in applications or recombinant DNA technology in agriculture, production of therapeutic proteins.

CO13: To understand principles of animal culture, media preparation.

SEMESTER –V (paper –V)

ANIMAL BIOTECHNOLOGY

CO1: Understand the applications of Biotechnology in the fields of industry and agriculture including animal cell/tissue culture, stem cell technology and genetic engineering.

CO2: Get familiar with the tools and techniques of animal biotechnology.

CO3: To provide knowledge on animal cell and tissue culture and their preservation

CO4: To empower students with latest biotechnology techniques like stem cell technology, genetic engineering, hybridoma technology, transgenic technology and their application in medicine and industry for the benefit of living organisms

CO5: To explain in vitro fertilization, embryo transfer technology and other reproduction manipulation methodologies.

CO6: To get insight in applications or recombinant DNA technology in agriculture, production of therapeutic proteins.

CO7: To understand principles of animal culture, media preparation.

SEMESTER –V (paper –VI)

ANIMAL HUSBANDRY

Course Outcomes: This course will provide students with a deep knowledge in

CO1: Understand the field level structure and functioning of poultry sector and its role in food production.

CO2: Comprehend pertaining skills and their application to establish poultry industry. Understand the pre-requisites for starting a Dairy farm

CO4: Recognize different breeds of Cows & buffaloes following safety precautions.

CO5: Prepare and give recommended feed and water for livestock. Maintain health of livestock along with productivity

CO6: Vaccination of cattle, nutrients requirements. Entrepreneurship i.e., Effectively market dairy products

CO7: Ensure safe and clean dairy farm and Standard safety measures to be taken in establishing am industry. Efficiently start and manage to establish or develop a Dairy Industry

SEMESTER –VI

IMMUNOLOGY Course Outcomes: This course will provide students with a deep knowledge in immunology, and by the completion of the course the graduate shall able to –

CO1: To get knowledge of the organs of Immune system, types of immunity, cells and organs of immunity.

CO2: To describe immunological response as to how it is triggered (antigens) and regulated (antibodies)

CO3: To trace the history and development of immunology

CO4: To provide students with a foundation in immunological processes

CO5: To be able to compare and contrast the innate versus adaptive immune systems and humoral versus cell-mediated immune responses

CO6: Understand the significance of the Major His to compatibility Complex in terms of immune response and transplantation

SEMESTER –VI

Cluster Elective Paper: VIII-B-1 PRINCIPLES OF AQUACULTURE

CO1: Students can understand basic scenario of aquaculture.

CO2: Can identify different cultivable species

CO3: Can differentiate types of aquacultures and its systems

CO4: Can get the basic knowledge of construction of fish pond,

CO5: No the sources of seed and feed available for aqua forms.no the knowledge management of carp and shrimp culture

SEMESTER –VI

Cluster Elective Paper: VIII-B-2 AQUACULTURE MANAGEMENT

CO1: Can understand the breeding and hatchery management in aquaculture.

CO2: Understand the importance of water quality.

CO3: Should know the feed management practices.

CO4: Analyse the importance of disease management

CO4: Understand the importance of fisheries in income generation food production and employment and researches.

SEMESTER –VI

Cluster Elective Paper: VIII-B-3 POSTHARVEST TECHNOLOGY

CO1: Can get the techniques of handling of fish for preservation

CO2: Get the knowledge of fish preservation.

CO3: They should know processing and by-products of fish.

CO4: Get the knowledge of importance of sea weed products.

CO5: They should the importance of sanitation quality assurance and certification for aqua products.

DEPARTMENT OF AQUACULTURE & TECHNOLOGY

SEMESTER-I

BASIC PRINCIPLES OF AQUACULTURE

CO1: Students can able to create different aquaculture systems.

CO2: They can evaluate the concept of ecology and pond eco-system.

CO3: They analyze the classification of fish ponds

CO4: Students can easily understand the preparation of pond and Field visit to hatchery

SEMESTER-II

BIOLOGY OF FIN FISH & SHELLFISH

CO1: Students are able to understand the classification of cultivable fin and shell fish.

CO2: Students can analyze the food and feeding growth of fish

CO3: Students can evaluate reproductive biology.

CO4: Students can easily understand development of fishes, hormones and growth

SEMESTER-III

FISH NUTRITION & FEED TECHNOLOGY

CO1: Students can understand the nutritional requirements of cultivable fish.

CO2: Create the knowledge in feed preparation and feeding habits.

CO3: Students are able to evaluate fish feed manufacture and storage.

CO4: Students analyze the estimation of protein content in aquaculture feeds

SEMESTER-IV_ PAPER-IV

FRESH WATER & BRACKISH WATER AQUACULTURE

CO1: Students can understand the present status of freshwater aquaculture and their role in world economy and food production.

CO2: Create knowledge in life history stages of freshwater fish and prawn.

CO3: Students gain analytical and technical knowledge of prawn hatchery technology and brackish water species.

CO4: They evaluate the carp and prawn culture and composite fish culture systems.

SEMESTER-IV PAPER-V

FISH HEALTH MANGEMENT & FISHERIES ECONOMICS

CO1: To understand the diseases of fin fish

CO2 To understand the diseases of shell fish.

CO3 To understand the fish health management strategies.

CO4 To understand the different fisheries economic policies.

CO5 To understand the various schemes for the welfare of fishermen community

SEMESTER-V

FISH HEALTH MANAGEMENT: (paper-V)

CO1: To gain knowledge about economics of fisheries.

CO2: To know about the changes in cell structure caused due to various diseases in fishes

CO3: To know about the fin fish diseases. To know about the shell fish diseases.

CO 4: To gain knowledge about using diagnostic tools to diagnose diseases in fishes

SEMESTER-V

FISHERIESEXTENSION, ECONOMICS & MARKETING: (paper-VI)

CO1: To gain knowledge about economics of fisheries.

CO2: To improve the knowledge about fish marketing process. To know about the economic status of fisher men.

CO3: To improve knowledge about fisheries extension methods. To know about welfare programmes of fisher men.

SEMESTER-VI

ORNAMENTAL FISHERIES: (Elective paper-I)

CO1: knowledge on the ornamental fish breeding will be learnt by the student

CO2: Learn about Management practices of ornamental fishes will be learnt.

CO3: Able to gain knowledge on the aquarium maintenance and accessories.

SEMESTER-VI

FISHERY ENGINEERING: Elective paper-II

CO1: student gain knowledge on the fishing crafts.
CO2: To learn about fishing accessories, netting materials–
Natural and synthetic fishing gear materials and yarn numbering system.

CO4: student can understand about Turtle exclusion devices By-catch reduction devices Destructive and prohibited fishing practices

CO5: Student learn about General maintenance of freezing plant and cold storage ice plant

SEMESTER-VI

FISH PROCESS TECHNOLOGY: (Cluster-I)

CO2: Students can understand the Fundamental principles involved in chilling and freezing of fish and fishery products. Various freezing methods.

CO3: Student learn about Packing and storage of dried products. Spoilage of dried products. Preventive measures. Standards for dry fish products. Cold smoking. Principles of freeze-drying.

CO4: student gain knowledge on Packing requirements for frozen and cured products. Statutory requirements for packing.

SEMESTER-VI

FISHERY MICRO BIOLOGY AND FISHERY BY-PRODUCTS: (Cluster-II)

CO 1: Student learn about General characteristics of bacteria, fungi, viruses, algae and protozoans.Ultrastructureofprokaryoticcell–structure and function of bacterial cell wall, plasma membrane, capsule, flagella and endospore. Structure of fungi and yeast cell.

CO 3 : Students can understand the Fish Microbiology: Fish as an excellent medium for growth of microorganisms.

CO 4 : : student gain knowledge on Fishery By- Products: Fishmeal, fish protein concentrate, sharkfinrays, fish maws, isinglass, fish liver oil, fish body oil, fish hydro lysates, chitin, chitosan, glucosamine hydrochloride,

SEMESTER-VI

QUALITYCONTROLINPROCESSINGPLANTS: (Cluster-III)

CO 1: Quality management, total quality concept and application in fish trade. Quality assessment of fish and fishery products

CO 3: Students can understand the water quality in fishery industry, product quality, water analysis, treatments, chlorination, ozonisation, UV radiation, reverse osmosis, techniques to remove pesticides and heavy metals.

CO 4: student gain knowledge on Fish processing units

CO 5: Student learn about Hazards in fish foods .Laboratory techniques for detection and identification of food poisoning bacteria.

SEMESTER-VI

CRUSTACEAN CULTURE: (Cluster-I)

CO 1: Student learn basics of crustacean cultures.

CO 2: Student gain knowledge on important cultivable species of shrimps and prawns, their food and feeding habits and their reproductive biology.

CO 3: : student gain knowledge on Crustaceans culture in cages, re- circulatory systems, rice fields and super intensive and ultra –intensive systems.

CO 4: Student learn about Pond and Large Scale farming; Composite Culture; Farming of Crab and Lobster.

CO 5: Students can understand the Bacterial, Fungal and Viral diseases encountered during large scale culture of Crustaceans

SEMESTER-VI

MOLLUSCANS AND SEA WEED CULTURE (Cluster-II)

CO 1: Student acquires knowledge on taxonomy of molluscans.

CO2: Student able to understand mollus culture and sea weed culture systems.

CO 3 : Student able to understand the biological activity in recyclecling systems of essensial trace materials.

CO 4: Student learn about the production of pearls from forming.

SEMESTER-VI

MARINE FIN FISHCULTURE (Cluster-III)

CO 1: Student learn about important cultivable fin fish species.

CO 3 : Classification of culture systems: ponds, pens, cages, raceways. Pond preparation and fertilization; eradication of weed and Predatory finfishes

CO 4 : student gain knowledge on Hatchery management

CO 5: Students can understand the organic farming and their management. Harvesting and post- harvesting technology of cultured fin fish.

BSc MICROBIOLOGY (Semester: I)
MBT: I INTRODUCTION TO MICROBIOLOGY AND MICROBIAL DIVERSITY

Course outcomes

Up on completion of the course students able to

1. Explain relationship and apply appropriate terminology relating to the structure, Genetics, metabolism and ecology of prokaryotic microorganisms, Algae, viruses and Fungi.
2. Students will get basics and importance of Microbiology.
3. Demonstrate appropriate laboratory skill and techniques related to isolation, staining, identification and control of microorganisms.

BSc MICROBIOLOGY (Semester: II) Credits: 4
MBT: II MICROBIAL PHYSIOLOGY AND BIOCHEMISTRY Hrs/Wk: 4

Course outcomes

1. This Course provides Understanding of biomolecular synthesis and control will help in further study
2. Develop knowledge on microbial genetics and molecular biology

BSc MICROBIOLOGY (Semester: III) Credits: 4
MBT: III MOLECULAR BIOLOGY AND MICROBIAL GENETICS Hrs/Wk: 4

Course outcomes

Up on completion of this course students should able to:

1. Explain working principle and applications of Colorimetry, Chromatography, Spectrophotometry, Centrifugation and Gel Electrophoresis.
2. Knowledge on Microbial nutrition, bacterial growth, metabolism and Respiration.
3. The student will get first-hand experience on separation methods

BSc MICROBIOLOGY (Semester: IV) Credits: 4
MBT: IV IMMUNOLOGY AND MEDICAL MICROBIOLOGY Hrs/Wk: 4

Course outcomes

Up on completion of the course students able to

1. Explain No-specific body defence and the immune response
2. Develop knowledge on disease transmission and control
3. Demonstrate on collection and handling of laboratory specimens
4. Develop an information making personal health decision in regard to infectious diseases.
5. Student can safeguard himself & society and can work diagnostics and hospitals.

BSc MICROBIOLOGY (Semester: IV) Credits: 4
MBT: V MICROBIAL ECOLOGY AND INDUSTRIAL Hrs/Wk: 4

MICROBIOLOGY

Course Outcomes:

1. Understand fundamental concept in soil microbial diversity, basic concept of biogeochemical cycles and plant growth promotion and plant diseases
2. Understands the role of microorganisms in treatment of solid and liquid waste.
3. Acquire knowledge on application of microorganisms in agro – environmental fields.
4. Get basic information design of fermenter, fermentation processes and Single cell proteins.
5. Self-reliance in the industrial application of Microbiology in life and industry.
6. Entrepreneurship can be established with the gained knowledge.

B.Sc MICROBIOLOGY (CBCS) SYLLABUS
THIRD YEAR – SEMESTER- V

MBT- 501 ENVIRONMENTAL & AGRICULTURAL MICROBIOLOGY

Course Outcomes:

1. The student will have fundamental concepts in soil microbiology, soil microbial diversity, basic concept of nitrogen fixation and plant growth promotion.
2. Understands the role of microorganisms in treatment of solid and liquid waste.
3. The student will acquire knowledge on application of microorganisms in agro – environmental fields.
4. Knowledge on plant disease control.

B.Sc MICROBIOLOGY (CBCS) SYLLABUS
THIRD YEAR – SEMESTER- V

MBT- 601: FOOD AND INDUSTRIAL MICROBIOLOGY

Course Outcomes:

1. **The course aim to provide general principles of food microbiology**
2. **It is assumed that students will have get basic information on spoilage, principle of food preservation and Single cell proteins.**

B.Sc MICROBIOLOGY (CBCS) SYLLABUS
THIRD YEAR – SEMESTER- VI
Elective Paper

MBT- 701 MICROBIAL BIOTECHNOLOGY

Course Outcomes:

1. **Student should be able to demonstrate with the wide diversity of microbes and their potential for use in microbial biotechnology**
2. **It is assumed that students will have get outlines of intellectual property rights.**

B.Sc MICROBIOLOGY (CBCS) SYLLABUS
THIRD YEAR – CLUSTER PAPERS :SEMESTER- VI

MBT- 801 A1: MICROBIAL DIAGNOSIS IN HEALTH CLINICS

Course Outcomes:

1. **Develop knowledge on disease transmission and control**
2. **Demonstrate on collection, handling and diagnosis of laboratory specimens**
3. **Develop a information making personal health decision in regard to infectious diseases.**

B.Sc MICROBIOLOGY (CBCS) SYLLABUS
THIRD YEAR – SEMESTER- VI

MBT- 801 A2: MICROBIAL QUALITY CONTROL IN FOOD AND PHARMACEUTICAL INDUSTRIES

Course Outcomes:

1. **Develop knowledge and skills on microbiological laboratory safety- General rules and regulations.**
2. **Develop skills on disinfection of instruments and equipments in laboratory and Hospitals**

B.Sc MICROBIOLOGY (CBCS) SYLLABUS
THIRD YEAR – SEMISTER-VI

MBT- 801 A3: BIOFERTILIZERS AND BIOPESTICIDES

Course Outcomes:

1. **Develop knowledge and skills on mass multiplication and field application of biofertilizers and biopesticides.**

ASD Government Degree College for Women (A), Kakinada

Course Outcomes – Science Stream

DEPARTMENT OF CHEMISTRY

SEMESTER – I

CHE 1303 (Theory): Inorganic & Organic Chemistry - I

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

P-Block elements

- Describe and compare the general characteristics of 13, 14, 15, 16 and 17 groups elements, and synthesis and structure determination of Diborane and Higher Boranes, Boron- Nitrogen compounds; silanes, silicones, graphitic compounds; hydrazine, hydroxylamine,phosphazenes.

- Classify the oxides based on chemical behaviour and oxygen content of Inter halogen compounds and pseudo halogens.

- Generalize and demonstrate the basic theory and applications of organometallic alkylic compounds of Li and Mg elements.

CHE 1303P (Practical): Laboratory Course - I

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

- Acquire the skill in the qualitative inorganic analysis of simple salts.

- Determine the quantitative amounts of metal ion in inorganic metal salts.

SEMESTER – II

CHE 2303 (Theory): Physical & General Chemistry – II

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Solid State:

- Classify and describe different crystal structures by applying the laws of crystallography.
- Acquire the knowledge of defects in crystal lattices.

Gaseous State:

- Explain the behaviour of ideal gas and real gas and causes for deviation of real gases fromideality;
- Describe the relation between critical constants and van der Waal's constants; temperature

inversion - Joule Thomson effect and Liquefaction methods of gases.

Liquid State:

- Demonstrate the qualitative description of liquid crystals.
- Illustrate the applications of liquid crystals in LCD devices.

Solutions:

- Explain the importance of Raoult's law in ideally dilute solutions.
- Recognize the significance of Henry's law and non-ideal solutions.
- Define the Azeotropic mixtures and illustrate the examples of HCl-H_2O, ethanol-water systems and fractional distillation.

- Explain the phenomenon of partially miscible liquids with examples – phenol - water, trimethylamine-water, nicotine-water systems. Effect of impurity on consulate temperature.
- Describe the basic concept and applications of distribution law.

Colloids and Surface Chemistry:

- Define colloids and significance of colloids preparatory uses.
- Illustrates the theoretical concepts and applications of adsorption by studying Freundlich, Langmuir adsorption isotherms.

Chemical Bonding:

- Illustrate the basis for chemical bonding and bon formations through VSEPR theory, Valence bond theory, Molecular orbital theory – LCAO method.
- Construct the M.O. diagrams for homo-nuclear and hetero-nuclear diatomic molecules (N_2,O_2, CO and NO).

Stereochemistry of Carbon Compounds:

- Illustrate the molecular representations of Wedge, Fischer, Newman and Saw-Horseformulae.
- Define stereoisomerism, stereoisomers, enantiomers, diastereomers with examples.
- Define conformational and configurational isomerism with special reference to ethane andn-butane.
- Describe optical activity- wave nature of light.
- Differentiate between visible light and plane polarized light, and interaction withmolecules.
- Differentiate between optical rotation and specific rotation.
- Definition of chirality and chiral molecule; criteria for absence of plane, center, and Sn axis of symmetry - asymmetric and dissymmetric molecules with examples.
- Definition of Chiral centers**;** calculating number of enantiomers and mesomers; CIP rulesfor R, S nomenclature.
- Definition of Diastereomers, geometrical isomerism with reference to alkenes - cis, transand E, Z- configuration.

CHE 2303P (Practical): Laboratory Course – II Qualitative Inorganic analysis and Inorganic Preparations:
Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below

Qualitative Inorganic analysis:

- Demonstrate the skill of analyzing the Mixture salts containing two anions and two cations through group separation table.

Inorganic Preparations:

- Demonstrate the knowledge on preparation of metal salts required for the preparation ofmetal complexes using ligands maintaining under pH conditions.

SECOND YEAR

SEMESTER – III

CHE 3303 (Theory): Inorganic & Organic Chemistry – IIIInorganic Chemistry:
Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Chemistry of d-block elements:

- Describe the general characteristics of d-block elements, stability on various oxidation states, their ability to form complexes, magnetic properties, catalytic properties and abilityto form complexes.

Theories of bonding in metals:

- Explain the metallic properties and its limitations.
- Describes and differentiates between Valence bond theory, Free electron theory, limitations, Band theory, formation of bands, explanation of conductors, semiconductors and insulators.

Metal carbonyls and related compounds:

- Classify metal carbonyls, EAN rule, and determine the structures and shapes of metalcarbonyls of V, Cr, Mn, Fe, Co and Ni.

Chemistry of f-block elements:

- Illustrates the chemistry of lanthanides - electronic structure, oxidation states, lanthanide contraction, consequences of lanthanide contraction, magnetic properties.
- Describe the chemistry of actinides - electronic configuration, oxidation states, actinide contraction, comparison of lanthanides and actinides.

Organic Chemistry:

Halogen compounds

- Discuss the stereochemistry and mechanisms for substitution and elimination reactions, and predict the effect of nucleophile, leaving group, and solvent on the relative rates of SN^1 versus SN^2 reactions, and E1 versus E2 reactions, as well as on the relative rates of substitution versus elimination.

Hydroxy compounds

- Nomenclate and classify hydroxy compounds, describe synthesis, properties and applications of alcohols, phenols, inter and intramolecular hydrogen bonding, able to present the reaction and mechanism of special reactions such as bromination, Kolbe- Schmidt reaction, Riemer-Tiemann reaction, Fries rearrangement, azocoupling, Pinacol- Pinacolone rearrangement.

Carbonyl compounds

- Classify and nomenclate aliphatic and aromatic carbonyl compounds, and draw the structure of the carbonyl group with bonding and hybridization.

- Write the synthesis and present of carbonyl group in aldehydes and ketones.
- Describe the nucleophilic addition reactions, base catalyzed named reactions, oxidation and reduction reactions of aldehydes and ketones.
- Perform the laboratory detection test for aldehydes and ketones.

Carboxylic acids and derivatives

- Demonstrate the classification and nomenclature of carboxylic acids, elucidate the preparatory methods, compare the relative acidities and demonstrate the physical and chemical properties with examples.

Active methylene compounds

- Discuss keto-enol tautomerism, Claisen condensation, Acid hydrolysis and ketonic hydrolysis of acetoacetic ester and malonic ester, synthetic application of mono, di and crotonic acids.

CHE 3303P (Practical): Laboratory Course -III

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Titrimetric analysis:

- Acquire the skill of preparing primary standards concentration, handling of apparatus, detection of end point etc.

Organic Functional Group Reactions:

- Identify the functional group present in the given organic compound by applying the concept of solubility followed by confirmatory tests.

SEMESTER – IV

CHE 4303 (Theory): Spectroscopy & Physical Chemistry – IV

Spectroscopy

- Explain how the absorption of energy by the molecules produces spectra which help in structure determination and identification of the molecules, and how this energy can initiatethe photo-chemical reactions.

Physical ChemistryDilute solutions

- Explain the origin of Keq and its relation to fugacity and activity and apply these concepts to ideal and real solutions of electrolytes and non-electrolytes and to colligative properties.

Electrochemistry

- Apply the principles of electrochemistry to conductance, voltaic, and electrolytic systems.
- Provide a physical basis for Debye-Huckel theory.
- List the methods for arriving at a plausible mechanism and/or rate law based on kineticinformation.
- Manipulate the gas laws to describe real and ideal gas behavior.
- Apply the steady-state hypothesis to obtain rate equations. Explain the basic principles of photochemical and radiation-chemical reactions.

Phase rule

- Explain how phase equilibria help in understanding the formation of various materials, allotropic forms of different substances

CHE 4303P (Practical): Laboratory Course - IV

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:
Physical Chemistry

- Determine the Critical Solution Temperature (CST), Conductance of strong acid vs strongbase and weak acid vs strong base.

IR Spectral Analysis

- Identify the functional group by IR Spectral Analysis.

THIRD YEAR

SEMESTER – V

CHE 5301 (Theory): Inorganic, Organic & Physical Chemistry – VInorganic Chemistry:
Coordination Chemistry

Some examples of course-level learning outcomes that a student of this course is required to demonstrate are indicated below:

- Review the role played by transition metal complexes play in Inorganic Chemistry.
- Describe the structure and bonding theories, electronic and magnetic properties of the transition metal complexes and their kinetic studies.
- Explain the theories of bonding in coordination compounds and their experimentalbehaviour.
- Explain the CFSE & Isomerism of complexes with 4 and 6 coordination numbers.

Spectral and magnetic properties of metal complexes

- Recognize the types of magnetic behavior, spin-only formula and calculate the of magnetic moments through experimental determination.

Stability of metal complexes

- Explain the differences between Thermodynamic stability and kinetic stability, factorsaffecting the stability of metal complexes, and chelate effect.

Organic Chemistry:

Nitro hydrocarbons

Some examples of course-level learning outcomes that a student of this course is required to demonstrate are indicated below:

- Nomenclate and classify nitro hydrocarbons, preparation and explain the reactivity throughsome named reactions.

Nitrogen compounds

- Classify Amines into 1°, 2°, 3° Amines and Quaternary ammonium compounds.
- Present the preparative methods, basic character and separation by Hinsberg method.
- Discuss the electrophilic substitution of Aromatic amines – Bromination and Nitration, oxidation of aryl and Tertiary amines, Diazotization.

Physical Chemistry:

Thermodynamics

Some examples of course-level learning outcomes that a student of this course is required to demonstrate are indicated below:

- Apply the basic concepts of calculus to concepts in chemistry.
- Describe the Three Laws of Thermodynamics and their development.
- Use the Maxwell equations and other thermodynamic relations to compute thermodynamic quantities from thermodynamic data tables.
- Derive the relationships between thermodynamic quantities; Interpret phase diagrams andexplain phase equilibria in terms of chemical potentials.
- Recognize the forces which drive the chemical reactions in forward direction and the concept of the interchange of energy in a system.
- Explain the use of electrical energy for initiating chemical reactions and also how chemical reactions can be utilized to produce electrical energy, and the basic principle used in the formation of cells and batteries.

CHE 5302P (Practical): Laboratory Course - V

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Organic Qualitative Analysis:

- Identify the functional group and derivatization of organic functional group in the givencompound.

SEMESTER – V

CHE 5302 (Theory): Inorganic, Organic & Physical Chemistry – VIInorganic Chemistry:

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Reactivity of metal complexes:

- Discuss the importance of labile and inert complexes,

- Demonstrate the ligand substitution reactions - S_N1 and S_N2, substitution reactions of square planar complexes - Trans effect and applications of trans effect.

Bioinorganic chemistry:

- Recognize the significance of Essential elements and biological significance of Na, K, Mg,Ca, Fe, Co, Ni, Cu, Zn and Cl^-.
- Demonstrate the Metalloporphyrins – Structure and functions of hemoglobin, Myoglobinand Chlorophyll.

Physical Chemistry:

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Chemical kinetics

- Define the rate of reaction, order and molecularity, demonstrate the rate laws.
- Derive the rate constants for first, second, third and zero order reactions and examples.

- Derive the for time half change, and
- Write the methods to determine the order of reactions.
- Discuss the effect of temperature on rate of reaction, Arrhenius equation, concept ofactivation energy.

Photochemistry

- Differentiate thermal and photochemical processes.

- Define and express the Laws of photochemistry- Grothus-Draper's law and Stark-Einstein's law of photochemical equivalence.
- Define quantum yield and photochemical reaction mechanism, qualitative description of fluorescence, phosphorescence, Photosensitized reactions- energy transfer processes

Organic Chemistry

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

Heterocyclic Compounds

- Define and discuss the synthesis, reactivity and applications simple five membered ring compounds with one hetero atom, viz., Furan, Thiophene and Pyrrole.
- Demonstrate the structure, synthesis and basicity of Pyridine, aromaticity and comparisonwith pyrrole.

Carbohydrates

- Elucidate the structure of Glucose and Fructose
- Examine the evidence for 2 - ketohexose structure, cyclic structure for glucose and fructose, osazone formation from glucose and fructose.
- Define of anomers with examples.
- Demonstrate the interconversions of Monosaccharides.

Amino acids and proteins

- Define and classify amino acids into alpha, beta, and gamma amino acids.
- Write the general methods of synthesis of alpha amino acids
- Discuss physical properties, Zwitter ion and isoelectric point.

CHE 5302P (Practical): Laboratory Course - VI

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

- Acquire the skill of determining the rate constant for first order reaction.
- Determine the molecular status and partition coefficient of benzoic acid in Benzene andwater.
- Determine the of surface tension and viscosity of different liquids
- Verify the Freundlich adsorption isotherm by studying acetic acid on animal charcoal.

Analytical Methods in Chemistry (Semester – VI):

An example of course-level learning outcomes that a student of this course is required to demonstrate is indicated below:

- Demonstrate up-to-date analytical skills required to deal with the detection, identification, separation, and estimation of atomic, molecular, and ionic species in various states.

IT Skills for Chemists (Semester–III/ IV/ V/ VI): Proposed

Examples of course-level learning outcomes that a student of this course is required to demonstrateis indicated below:

- Formulate a set of calculations that can address a relevant research question;
- Use one or several computer programs and extract useful information;
- Write a research paper that describes methods, results, and interpretation;
- Assess the meaning and validity of calculations that appear in the chemical literature.

DEPARTMENT OF PHYSICS

Practical Course 1: Mechanics, Waves and Oscillations

Course outcomes (Practicals):

On successful completion of this practical course, the student will be able to;

- Perform experiments on Properties of matter such as the determination of moduli of elasticity viz., Young's modulus, Rigidity modulus of certain materials; Surface tension of water , Coefficient of viscosity of a liquid , Moment of inertia of some regular bodies by different methods and compare the experimental values with the standard values.
- Know how to determine the acceleration due to gravity at a place using Compound pendulum and Simple pendulum.
- Notice the difference between flat resonance and sharp resonance in case of volume resonator and sonometer experiments respectively.
- Verify the laws of transverse vibrations in a stretched string using sonometer and comment on the relation between frequency, length and tension of a stretched string under vibration.
- Demonstrate the formation of stationary waves on a string in Melde's string experiment.
- Observe the motion of coupled oscillators and normal modes.

Course-II: WAVE OPTICS

Course outcomes:

On successful completion of this course, the student will be able to:

- 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.

- v Distinguish between Fresnel's diffraction and Fraunhoffer diffraction and observe the diffraction patterns in the case of single slit and the diffraction grating.
- v Describe the construction and working of zone plate and make the comparison of zone plate with convex lens.
- v Explain the various methods of production of plane, circularly and polarized light and their detection and the concept of optical activity..
- v Comprehend the basic principle of laser, the working of He-Ne laser and Ruby lasers and their applications in different fields.
- v Explain about the different aberrations in lenses and discuss the methods of minimizing them.
- v Understand the basic principles of fibreoptic communication andexplore the field of Holography and Nonlinear optics and their applications.

Practical Course II: Wave Optics

Course outcomes (Practicals):

On successful completion of this practical course the student will be able to,

1. Gain handson experience of using various optical instruments like spectrometer,polarimeterand making finer measurements of wavelength of light using Newton Ringsexperiment, diffraction grating etc.
2. Understand the principle of working of polarimeter and the measurement of specific rotatory power of sugar solution
3. Know the techniques involved in measuring the resolving power of telescope and dispersive power of the material of the prism.
4. Be familiar with the determination of refractive index of liquid by Boy's methodandthe determination of thickness of a thin wire by wedge method.

Course-III: HEAT AND THERMODYNAMICS

Course outcomes:

On successful completion of this course, the student will be able to:

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

Practical Course-III: Heat and Thermodynamics

On successful completion of this practical course,the student will be able to;

- Ø Perform some basic experiments in thermal Physics, viz., determinations of Stefan's constant, coefficient of thermal conductivity, variation of thermo-emf of athermocouple with temperature difference at its two junctions, calibration of a thermocouple and Specific heat of a liquid.

CourseIV: ELECTRICITY, MAGNETISM AND ELECTRONICS

Course outcomes:

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

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

Practical CourseIV:
Electricity, Magnetism and Electronics

Course outcomes (Practicals):

On successful completion of this practical course the student will be able to;

- Measure the current sensitivity and figure of merit of a moving coil galvanometer.
- Observe the resonance condition in LCR series and parallel circuit
- Learn how a sonometer can be used to determine the frequency of AC-supply.
- Observe the variation of magnetic field along the axis of a circular coil carrying current using Stewart and Gee's apparatus.
- Understand the operation of PN junction diode, Zener diode and a transistor and theirV-I characteristics.
- Construct the basic logic gates, half adder and full adder and verify their truth tables. Further, the student will understand how NAND and NOR gates can be used as universal building blocks.

Course V: MODERN PHYSIS

Course outcomes:

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

- Develop an understanding on the concepts of Atomic and Modern Physics, basicelementary quantum mechanics and nuclear physics.
- Develop critical understanding of concept of Matter waves and Uncertainty principle.
- Get familiarized with the principles of quantum mechanics and the formulation ofSchrodinger wave equation and its applications.

v Examine the basic properties of nuclei, characteristics of Nuclear forces, salientfeatures of Nuclear models and different nuclear radiation detectors.
v Classify Elementary particles based on their mass, charge, spin, half life andinteraction.
v Get familiarized with the nano materials, their unique properties and applications.
v Increase the awareness and appreciation of superconductors and their practicalapplications.

Practical Course V:Modern Physics

On successful completion of this practical course, the student will be able to;

Ø Measure charge of an electron ande/m value of an electron by Thomson method.
Ø Understand how the Planck's constant can be determined using Photocell and LEDs.
Ø Study the absorption of α-rays and β-rays, Range of β-particles and the characteristicsof GM counter
Determine the Energy gap of a semiconductor using thermistor and junction diode

UG- SKILL DEVELOPMENT COURSE
ELECTRICAL APPLIANCES SEM- I
Learning Outcomes: By successful completion of the course, students will be able to:
· Acquire necessary skills/hand on experience/ working knowledge on multimeters, galvanometers, ammeters, voltmeters, ac/dc generators, motors, transformers, single phase and three phase conne ctions, basics of electrical wiring with electrical protection devices.
· Understand the working principles of different household domestic appliances.
· Check the electrical connections at house-hold but will also learn the skill to repair the electrical appliances for the general troubleshoots and wiring faults.

SOLAR ENERGY SEM- II
Learning Outcomes: After successful completion of the course, students will be able to:
· Acquire knowledge on solar radiation principles with respect to solar energy estimation.
· Get familiarized with various collecting techniques of solar energy and its storage
· Learn the solar photovoltaic technology principles and different types of solar cells for energyconversion and different photovoltaic applications.
· Understand the working principles of several solar appliances like Solar cookers, Solar hot watersystems, Solar dryers, Solar Distillation, Solar greenhouses

DEPARTMENT OF MATHEMATICS

Course: Differential Equations

Course Objectives:

On completion of the course, the student should be able to

1. Remember the concept of differential equation and types of differential equations,and different methods to solve the differential equations.

2. Identify the difference between first order first degree and linear differential equations.

3. List the different methods to solve higher order linear differential equations with constant coefficients.

4. Differentiate the methods to solve the first order but not first degree differential equations.

Course Outcomes

Students are able to

- Identify the different types of first order and first degree differential equations and solve the problems.
- Solve the different methods in first order but not first degree differential equations.
- Understand the higher order linear differential equations with constant coefficients and can solve the different types of problems.
- Apply the linear differential equation to solve the physical problems.
- Apply the higher order differential equations in simple harmonic motion, simple pendulum problems.
- Solve the Cauchy-Euler's differential equations.
- Solve the differential equations by the method of variation of parameters.

SEMESTER II

Course: Solid Geometry

Course Objectives:

On completion of the course, the student should be able to

1. Demonstrate the concept of plane and acquire the skill to solve the problems planes.
2. Practice the problems on lines.
3. Describe the sphere and cone and can solve the problems.
4. Recall the concept of cylinder.

Course Outcomes

After successful completion of the course, Students are able to

- Understand the concept of plane and can solve the problems like angle between planes, orthogonal projection on a plane.
- Solve the problems on the concept of line and coplanar lines, the condition that a given line may lie in a given plane etc.
- Understand the concept of sphere and can solve the problems.
- Solve the problems on the concepts of cones and cylinders.

- Apply the concepts of three dimensional concepts in solving the volume integrals and surface integrals in vector calculus.

SEMESTER III

Course : Abstract Algebra

Course Objectives:

On completion of the course, the student should be able to

1. Explain the definitions in Group theory with examples.
2. Interpret the important theorems in group theory
3. Understand the Lagrange's theorem and Cayley's theorem and its applications.
4. Explain the definition of Normal groups and permutations.

Course Outcomes

After successful completion of the course, Students are able to

- Define the group with important example and the elementary properties of groups, finite groups ,composition table and the order of a group.
- Understand the conditions for subgroup of a group and examples of subgroups.
- Identify the applications of Lagrange's theorem.
- Understand the definition of Normal subgroups with examples and quotient group.
- Define the homomorphisms and its elementary properties and the proof of first homomorphism theorem.
- Understand the definition of permutation and product of permutations, even and odd permutations and the proof of Cayley's theorem.

SEMESTER IV

Course : Real Analysis

Course Objectives:

On completion of the course, the student should be able to

1. Recall the concept on real numbers and their properties and some of the definitions.
2. Practice the problems on real sequences.
3. Solve the problems on infinite series.
4. Understand the Riemann integration definition and the theorems,can solve the problems on Riemann Integrals.

Course Outcomes

After successful completion of the course, Students are able to

- Understand the concept of real numbers and the properties of real numbers and the definitions of supremum and infimum.
- Solve the problems in sequences, limit of a sequence.
- Solve the problems on infinite series by using the tests like ratio test, n^{th} root test etc.,
- Solve the problems on the basic concepts of continuity, its elementary properties and uniform continuity.
- Understand the concepts of differentiation and the three mean value theorems can solve the problems.
- Define the Riemann integration and solve the problems.

SEMESTER V

Course : Ring Theory and Vector Calculus

Course Objectives:

On completion of the course, the student should be able to

1. Define ring with example and integral domain.
2. Cite the examples on divisions rings, fields, associates and units.
3. Describe the isomorphic theorems on rings
4. Cite the examples on line ,surface and volume integrals, and integral theorems.

Course Outcomes

After successful completion of the course, Students are able to

- Define ring with good number of examples and the basic definitions in ring theory.
- Understand the definitions of integral domain and the theorems on integral domains.
- Understand the definition of homomorphisms with examples and the concept of kernel, the important theorems on kernel.
- Prove the three isomorphic theorems.

- Solve the problems on vector differentiation, gradient and its applications, divergence and curl of a vector point function.

- Solve the problems on the concepts of line, surface and volume integrals and on three vector integral theorems.

SEMESTER V

Course : Linear Algebra

Course Objectives:

On completion of the course, the student should be able to

1. Define vector space and subspace and their properties.

2. Explain the concept of bases and extended bases.

3. Demonstrate the linear transformations and their properties.

4. Solve the problems on matrices.

Course Outcomes

After successful completion of the course, Students are able to

- Understand the concept of vector space and subspace with examples and their properties.

- Define the basis, basis extension, dimension of subspace, and solve the problems.

- Understand the linear transformation and its properties, theorems on null space and range of the linear transformation.

- Solve the problems on rank of a matrix, Eigenvalues and Eigen vectors of a square matrix and Cayley-Hamilton theorem.

- Solve the problems on inner-product space, Gram-Schmidt orthogonalisation and Bessel's inequality.

SEMESTER VI (Elective)

Course : Numerical Analysis

Course Objectives:

On completion of the course, the student should be able to

1. List all the methods to solve algebraic and transcendental equations.

2. Explain the concept of interpolation with equally spaced and unequally spaced intervals.

3. Explain the finite difference operators and the relationship between them.

4. Explain the concept of interpolation with equally spaced and unequally spaced intervals.

Course Outcomes

After successful completion of the course, Students are able to

- Solve the problems on types of errors.
- Solve the algebraic and transcendental equations by using the numerical methods.
- Solve the problems on finite difference operators and the relations among the operators.
- Interpolate the polynomials by using Newton's forward and backward,Gauss and Stirling's interpolation formulae.
- Interpolate the polynomial with unequal intervals by using Lagrange's interpolating polynomial, Newton's divided difference formula.

SEMESTER VI (Cluster Elective - I)

Course : Advanced Numerical Analysis

Course Objectives:

On completion of the course, the student should be able to

1. Describe the fitting of approximate curves by the method of least squares.
2. Cite the examples on numerical differentiation and numerical integration.
3. Solve the system of linear equations by using the numerical methods.
4. Apply the differentiation to find the maximum and minimum of the unknown function by using the given table values.

Course Outcomes

After successful completion of the course, Students are able to

- Fit an approximate curve by the method of least squares.
- Solve the problems in numerical differentiation and apply to find the maximum and minimum values of the given tabulated data.
- Solve the problems in numerical integration by using the trapezoidal rule, Simpson's 1/3 rule, Simpson's $3/8^{th}$ rule and the errors.
- Find the approximate solutions of linear system of equations.

- Solve the first order differential equations by using the numerical methods.

SEMESTER VI (Cluster Elective - II)

Course : Special Functions

Course Objectives:

On completion of the course, the student should be able to

1. Understand the concept of Hermite differential equation and the Hermite polynomial.
2. Describe the concept of Lgueree's polynomials.
3. Explain the concept of Legendre's differential equation and Legendre's polynomial.
4. Interpret the Bessel's differential equations and Bessel's polynomials.

Course Outcomes

After successful completion of the course, Students are able to

- Understand the concept of Hermite differential equations and its solution and the properties.
- Solve the problems on Lagueree polynomials and the recurrence relations.
- Understand the concept of Legendre's polynomial and can solve the problems.
- Solve the problems on Bessel's differential equation its generating function and properties.
- Apply the concept of Beta Gamma functions to solve some of the integrals.

DEPARTMENT OF HOME SCIENCE

SEMESTER - I

HSC -101- BASIC NUTRITION

Outcomes of the course

At the end of the course the student will be able to demonstrate the following:-

A) Remembers and explains in a systemic way

- Understanding the concepts of nutrition and food and its relation to health.
- Acquiring knowledge about macro and micro nutrients and their functions.
- Knowing the consequences of deficiency of taking nutrients.
- Understanding importance of non nutrients in human nutrition

B) Understands and Uses

- Planning recipes by selecting appropriate foods based on the macro and micro nutrient composition.

- Selection of foods based on the nutrient composition for healthy and disease people.

C) Critically explains, judges and solves

- Planning and calculating nutritive values for the foods and recipes.
- Identification of signs and symptoms of different nutrient disorders.
- Practical knowledge on availability of seasonal and other foods by doing market survey.
- Listing out the common foods and their names in scientific and local languages.

D) Working in out of prescribed area under a co-curricular activity

- Selection of foods based on seasonal availability and planning recipes on the nutrient composition to healthy and diseased conditions.

E) Practical skills

- Market survey on different foods available and learning local and scientific names.
- Learn to identify different food samples and to know their nutrient composition.
- Planning of recipes according to nutrient components.

SEMESTER - I

HSC-102 – GENERAL PSYCHOLOGY

Outcomes of the course

The students will be able to:

A) **Remember and explain in a systematic way**

- The concept of psychology and its branches of study.
- About basic psychological concepts like Attention, Perception, , Memory and Motivation

B) **Understand and Use**

- Understand the meaning of Personality
- Use theoretical perspectives of Psychology to understand human behaviour.

C) **Critically explains, judges**

- The determining factors of human personality.

D) **Working in out of prescribed areas under co-curricular activity**

- Observing different types of personalities based on type theory
- Identifying children with extremes of intelligence in local schools.

E) **Practical skills**

- Methods of study of children using different methods.

- Assessment of personality and intelligence using standard tests.

SEMESTER - I

HSC-103–FUNDAMENTALS OF TEXTILES

Outcomes of the course

The students will be able to

A. Remember and explain in a systematic way:

- The importance of the textiles in human life and also the textile terminology and types of fibres.
- Use of Textile fibres in various fields.

B. Understands and Uses

- Identification of different fibres like plant fibres, animal fibres based on properties.
- Gains knowledge on manufacturing of different textile fibers.
- Understands the method of Spinning and process of yarn construction.

C. Critically explains, judges

- Critical differences between cellulose, protein and man-made fibres.
- Judge the differences between simple and novelty yarns.

D. Working in out of prescribed areas under co-curricular activity

- Collection of different fabrics and gain knowledge about their seasonal usage.

E. Practical Skills

- Identification of different textile fibres using microscopic, burning tests.
- Identification of yarns and their use in textiles.

SEMESTER - II

HSC - 201 – INTRODUCTION TO FOOD SCIENCE

Outcomes of the course

At the end of this course, the students will be able to

A) Remember and explain in a systematic way of

- About different plant and animal foods, their selection, nutritive values, composition, and storage and processing.
- Explains the principles of food preservation and causes of spoilage.

B) Understanding and Uses

- Planning recipes of cereals and millets, pulses, Milk and Milk products, vegetables, fruits, nuts and oil seeds products
- Uses different foods in cookery.
- Understands application of different processing techniques in cookery.

C) Critically explain, judge and Solve

- Standardisation of weights and measures of various food items.
- Analyses different processing techniques to improve nutritive quality of foods by germination, fermentation, supplementation, fortification etc.

D) Creativity

- Planning and preparation of nutritious recipes by using different foods

E) Practical Skills

- Preparation of food without losing nutritive value
- Planning, preparing and calculating nutritive values of protein rich, Calcium rich, and Iron rich recipes.

SEMESTER - II

HSC-202 - HOUSING FOR BETTER LIVING

Outcomes of the course

At the end of the course, the students will be able to learn

A) **Remember and explain in a systematic way**

- Importance of house for better living
- Requirements to purchase land, building materials protection and care of house

B) **Understands and Uses**

- Principles of planning a house with an emphasis on kitchen plans
- Types and properties of building materials

C) **Critically explains, judges**

- Planning of different rooms in a house.
- House plans for different income groups.
- Advantages and disadvantages of own and rented house.
- Protection of house from dampness, termites, fire etc.,
- Selection and purchase of equipment for the house.

D) **Working in out of prescribed areas under co-curricular activity**

- Study of building materials and equipment which are not included in the syllabus
- Visiting Places –Building sites/ Construction

E) **Practical skills**

- Drawing of floor plans of houses for different income groups using symbols.
- Drawing of different kitchen plans
- Study and identification of different building materials.
- Study of electrical and non-electrical equipment for the house, their operation and care.

SEMESTER - II

HSC- 203 –FUNDAMENTALS OF HOME SCIENCE EXTENSION

Outcomes of the course

The students will be able to:

A) Remember and explain in a systematic way

- Learn the meaning, scope and concept of Home Science Extension.
- Explain the importance of Extension Education in Home Science

B) Understand and Use

- Understand the role Extension worker in community
- Understand the Principles, steps in Teaching and Learning process

C) Critically explains, judges

- Qualities of an Extension Worker
- Different Teaching Methods and Teaching Aids in Communication Process.

D) Working in out of prescribed areas under co-curricular activity

- Know the importance of Teaching Methods and Teaching Aids in Communication Process.
- Know the barriers of communication and learn how to overcome them.

E) Practical skills

- Learn Practical skills in planning, preparation of Audio-Visual Aids
- Usage of bulletin board in extension education
- Use of different types of Teaching methods and Audio-Visual Aids for different target groups.

SEMESTER - III

HSC-301 – COMMUNITY NUTRITION

Outcomes of the course

The students will be able to:

A) **Remembers and explain in a systematic way**

- Understanding the nutritional problems and nutrition requirements of the community.
- Acquiring knowledge about RDA, food groups, steps in planning a diet.

B) **Understanding and Uses**

- Planning of nutrition diets according to RDA for different age groups-Infancy to old age and physiological conditions -Pregnancy and lactation
- Different methods of assessing nutritional status –Anthropometry, biochemical, clinical examination and diet survey etc.,

C) **Critically explains, judges & Solves**

- Preparation of nutritious diets for different age groups meeting the RDA.
- ABCD-techniques for nutritional status assessment.

D) **Working in out of prescribed areas**

- Planning programs to combat nutritional problems in community.

E) **Practical skills**

- Planning & Preparation of diets for different age groups
- Calculations of nutritive values of the diets and RDA for different age groups.
- Nutrition education techniques.
- Assessment of nutritional status using ABCD techniques.

SEMESTER - III

HSC – 302 - PRINCIPLES OF GARMENT CONSTRUCTION

Outcomes of the course

The students will be able to

A) Remember and explain in a systematic way

- Explain the different sewing equipment used in garment construction.
- Recall the different parts of sewing machine and its function.

B) Understands and Uses

- Understand the use of sewing machine and ways to stitch fabrics.
- Learn to identify the defects and to know the adjustments of sewing machine.
- To know the different body measurements to stitch a garment.

C) Critically explains, judges

- Analyse the estimation of fabric for different garments.
- Evaluate the stitching and fitting of the garments.

D) Working in out of prescribed areas under co-curricular activity

- Visiting nearby tailoring units and observing different garment components.
- Visiting nearby Ready-made clothing shops and observing different garment components

E) Practical skills

- Adjustments and care of using a sewing machine
- Method of taking perfect body measurements and pattern making.
- Using drafting equipment and Systematic method of Drafting
- Stitching different basic stitches
- Stitching necklines, collars , plackets and sleeves,
- Drafting and construction of saree petti coat and frock

SEMESTER - III

HSC-303 CHILD DEVELOPMENT

Outcomes of the course

The students will be able to:

A) Remember and explain in a systematic way

- Scientific knowledge about child-development, and Developmental tasks at various stages of child development.
- The childhood problems, special needs of challenged children and their management.

B) Understand and Use

- Understand the stages of pregnancy and birth process.
- Use basic principles for assessment of various developments during childhood.

C) Critically explains, judges

- The developmental milestones and can identify developmental delays.
- About parenting styles adopted by parents and impact of different parenting styles on child's behaviour.

D) Working in out of prescribed areas under co-curricular activity

- Observation of neonatal characteristics by visiting a maternity hospital.
- Familiarise with childhood disabilities by visiting local centres for special children.

E) Practical skills

- Assessment of different developments like physical, social and cognitive development of children belonging to different age groups.
- Learn the method of assessment of behaviour problems among children using a check list.

SEMESTER - IV

HSC-401 - THERAPEUTIC NUTRITION

Outcomes of the course

The students will be able to

A) **Remember and explain in a systematic way**

- Understands the meaning, objectives and purpose of therapeutic nutrition.
- Understands about modification of normal diets to therapeutic diets.

B) **Understands and Uses**

- Planning and preparation of diets for different diseases like Obesity, Cardiovascular, Renal, Diabetes mellitus etc,

C) **Critically explains, judges**

- Calculation of Nutrient Requirements and modification of the diets for complications in different disease conditions.

D) **Working in out of prescribed areas under co-curricular activity**

- Preparation of diets for the patients in acceptable manner by applying their own choice of foods through observing the family members, elderly, friends, neighbours and patients.

E) **Practical skills**

- Planning and preparation of diets for different disease conditions.
- Diet counselling and patient education.

SEMESTER – IV

HSC-402 FABRIC CONSTRUCTION AND APPAREL CARE

Outcomes of the course

At the end of the course the students will be able to learn:

A) **Remember and explain in a systematic way**

- Concepts of Grain- fabric count , Thread count, balance, selvedge weft and warp etc.
- Meaning of knitting, weaving and finishes in fabric construction.

B) **Understands and Use**

- Knowledge in selection of clothing.
- Learn the process of laundering to different fabrics like cotton, woollen, silk etc.

C) **Critically explains**

- Different methods of fabric construction
- Examine the use of finishes in textile field.
- Analyze the selection of clothing and planning of wardrobe

D) **Working in out of prescribed areas under co-curricular activity**

- Visit to weaving centre and dry cleaning centres.
- Identify methods of removing stains in fabrics

E) **Practical skills**

- Identify and prepare different weaves.
- Examine the thread count of the fabric and analyse its balance for durability.
- Removing different stains on fabric.
- Drafting and stitching of Salwar and Kameez.

SEMESTER - IV

HSC- 403 - HUMAN DEVELOPMENT AND FAMILY DYNAMICS

Outcomes of the course

The students will be able to:

A) **Remember and explain in a systematic way**

- Factors essential for harmonious and wholesome family living.
- Knowledge on pubertal changes, adolescence and appreciate value of marriage in Indian families
- Meaning of Pre-marital counselling and Post -marital counselling

B) **Understand and Use**

- Understand the need for planning and preparation of parenthood.
- Understand the importance of adjustments to strengthen marital and family relationships

C) **Critically explains, judges**

- Problems of adolescence during each sub stage and coping up strategies.

D) **Working in out of prescribed areas under co-curricular activity**

- Visiting counselling centres and understanding coping up strategies of problems
- Familiarise with problems of elderly through case studies and institutional visits.

E) **Practical skills**

- Methods of study of adolescent problems using scales and schedules
- Case study method to find out the adjustment problems of married couple.
- Case study method to find out the Physical and Psychological problems of elderly

SEMESTER - IV

HSC -404- NUTRITIONAL BIOCHEMISTRY

Outcomes of the course

The student will be able to demonstrate the following:-

A) Remembers and explains in a systematic way

- Understands the metabolism of different macro and micro nutrients in human physiology.
- Acquires knowledge on factors affecting digestion, absorption of nutrients.
- Knowledge on enzymes and its role in nutrient metabolism.

B) Understands and uses

- Selects foods based on nutrient chemical components and their function biochemically, physiologically and metabolically as well as their impact on disease.
- Understands nutritional needs in healthy individuals and in and diseased conditions.

C) Critically explains, judges and solves

- Identifies nutrients in foods.
- Estimates Qualitative and quantitative analysis of nutrients in different foods.
- Identifies Food enzymes.

D) Working in out of prescribed area under a co-curricular activity

- Observing in hospitals/ private laboratories analysis methods according to the person to person metabolism
- Observing therapeutic diets in hospitals according to the person to person metabolism.

E) Practical skills

- Tests for identification of mono, di and polysaccharides, proteins and amino acids, fats and enzymes.

S**EMESTER - IV**

HSC- 405 - INTERIOR DESIGN AND DECORATION

Outcomes of the course

At the end of the course, the students will be able to learn

A) **Remember and explain in a systematic way**

- Explain design, types of design, elements, Principles of design and colour harmonies.
- Understands colour concept, lighting methods and arts to decorate the interiors based on aesthetic performance.
- Acquire knowledge on selecting appropriate building materials, equipment and finishes with regard to safety and eco friendly construction.

B) **Understands and Uses**

- Apply the elements and principles of design and colour harmonies in the arrangement of furniture, accessories in different rooms, flower arrangement and table setting

C) **Critically explains, judges and solves**

- Factors affecting the purchase of furniture; colour harmonies in different rooms

D) **Working in out of prescribed areas under co-curricular activity**

- Learn elements and principles of design by drawing, painting by collecting pictures from magazines
- Preparation of Chart , Posters and albums using principles of art and design
- Observation of Flower Arrangements at different places.

E) **Practical skills**

- Learn elements and principles of design by drawing, painting by collecting pictures from magazines
- Learn to arrange furniture in different rooms by applying elements and principles of design
- Learn to arrange Flower Arrangements by applying elements and principles of design
- Learn to lay the table formal and informal parties.

SEMESTER IV

HSC - 406 HOME SCIENCE EXTENSION AND COMMUNITY DEVELOPMENT

Outcomes of the course

At the end of the course, the students are able to learn:

A) Remember and explain in a systematic way

- Features of rural, urban and tribal communities
- Meaning of community development

B) Understands and Uses

- Importance of Programme Planning in organising community development programmes
- Planning lessons for specific groups

C) Critically explains

- Role of various Governmental and Non-Governmental agencies in Community development
- Objectives and services rendered by Governmental and Non-Governmental agencies to the community.

D) Working in out of prescribed areas under co-curricular activity

- Learn about Panchayat Raj set-up at different levels, by visiting and exploring with Government officials and village heads.

E) Practical skills

- Planning, Preparation and execution of lessons in the classrooms and community.
- Conducting project work on community development programmes.

Semester-V

COURSE CODE: HSc-501:Human DevelopmentCourse Outcomes:

- Gains knowledge on the development during the different areas of life span
- Acquires skills in construction of case study tools and conducting case studies

Semester-V

COURSE CODE: HSc-502 Management of Family Resources

THEORY

Course Outcomes:

- Learns about the effective management of various available resources at individual andfamily level
- Gains understanding of good home management skills
- Learns about the management of time and energy which enables to work efficiently withless expenditure of time and energy

Semester-V

HSc-503 Home Science Extension

OUT COMES:

- Explains the scope, principles and methods of extension education
- Describes steps in extension teaching and extension teaching methods
- Describes characteristics of Home Science extension education
- Identifies the role of Home Science extension education in development

Semester-VElective I

COURSE CODE: HSc-504(a) Sociology

- Students will learn about society and its relation to social sciences, social reforms, family,population
- Acquires knowledge about good citizenship and its importance
- Gain required knowledge and skills required to works as a social workerSemester-V

Elective II

COURSE CODE: HSc-505(a)- Fabric EmbellishmentCourse Outcomes:

Up on completion of this course student will be able to

- Demonstrate knowledge of different dyes and dyeing methods used.
- Differentiate hand methods of printing from machine methods.
- Integrate the knowledge of traditional textiles and embroideries.
- Demonstrate knowledge of costumes of different states of India and distinguish betweenthem.
- Identify different laundry equipment and materials and understand their use.

Semester-VElective III

COURSE CODE: HSc-506(a)- COMMUNITY NUTRITION

Outcomes

- Understands what is under nutrition and malnutrition causes, prevalence and its consequences.
- Evaluates methods of nutritional assessment of individual and group both directly and indirectly.
- Identifies the major nutritional problems existing in India- causes, effects, prevention and control measures.
- Explains various national nutritional programmes existing in India to combat malnutrition.
- Describes role of national and international agencies in improving the nutritional status of population.

Semester-VI

COURSE CODE: HSc-601 Early Childhood Care and Education

Course Outcomes

Gains understanding about the functioning and administration of a preschool Learns the skills of planning and implementation a preschool programme

Acquires the knowledge of different organizations working for child welfare,their objectives andfunctioning

Semester-VI

COURSE CODDE: HSc-602 Therapeutic Nutrition

Outcomes

- Identifies diet therapy, explains its principles, objectives and factors to be considered
- Describes the modification of diets
- Identifies and compares the diets in common diseases
- Develops an attitude to take diet as a method for the prevention of diseases

Semester-VI

COURSE CODE: HSc-603 Home Science Extension & Community Development Out Comes

- Defines Extension Programme Planning
- Describes the nature and importance of Extension Teaching Methods
- Discriminates the elements of programme planning
- Classifies and differentiates the types of Panchayat Raj system in India

Semester-VI Elective I

HSc-604(a) Family dynamics Out Comes

Learn about the importance of Marriage and Family

Acquires skills for working; as Marriage and family counsellors

Semester-VI Elective III

COURSE CODE: HSc-606(a) Household Economics

Course Outcomes

- Gains understanding about the various laws of economics and their application in household expenditure
- Acquires the skills of household budgeting and maintenance of household financial records
- Gains knowledge about the various saving and investment schemes

Course Outcomes – Arts & Humanities

DEPARTMENT OF COMMERCE(Vocational)

Paper : I

Course: Information Technology

Course Outcomes:

1. Understand a vocabulary of key terms related to the computer and able to identify the components of a personal computer system.
2. Understanding the working principles of input and output devices and basics of different types of memories.
3. To perform documentation using MS Word
4. To enter and manipulate data in Excel
5. To perform presentation skills
6. To manage databases using MS Access

Paper : II

Course:Information Technology Lab

Course Outcomes:

At the end of the course student will be able to

1. to perform documentation using MS Word
2. to enter and manipulate data in Excel
3. to perform presentation skills
4. to manage databases using MS Access

Paper : II

Course: E-COMMERCE AND WEB DESIGNING

Course Outcomes:

1. Understand the foundations and importance of E-commerce
2. Define Internet trading relationships including Business to Consumer, Business to Business, Intra-organizational
3. Describe the infrastructure for E-commerce
4. Discuss legal issues and privacy in E-Commerce
5. Understand the principles of creating an effective web page, including an in-depth consideration of information architecture

Course: E-COMMERCE AND WEB DESIGNING LAB

Course Outcomes:

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

1. Make use of HTML tags to design Web pages.
2. Develop dynamic Web pages

Paper : III

Course:Programming with C & C++

Course Outcomes:

1. Develop programming skills
2. Declaration of variables and constants use of operators and expressions
3. Learn the syntax and semantics of programming language
4. Be familiar with programming environment of C and C++

5. Ability to work with textual information (characters and strings) & arrays
6. Exploring C programming and Design C++ classes for code reuse.

Course:Programming with C & C++

Course Outcomes:

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

4. Implement programs using fundamental features of C Language.
5. Solve problems with the use of loops, decision making statements and functions.
6. Implement programs performing various Operations on Arrays
7. Implement programs using constructor.
8. Implement programs to implement inheritance
9. Implement programs for operator overloading

Paper : IV

Course: Database Management Systems

Course Outcomes:

1. Understand the role of a database management system in an organization.
2. Understand basic database concepts, including the structure and operation of therelational data model.
3. Understand and successfully apply logical database design principles, including E-R diagrams and database normalization
4. To design and build a simple database system and demonstrate competence with thefundamental tasks involved with modeling, designing, and implementing a DBMS.
5. Perform PL/SQL programming using concept of Cursor Management, ErrorHandling, Packages

Course: Database Management Systems Lab

Course Outcomes:

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

4. Design database for the real world scenarios
5. Make use of SQL and PL/SQL to efficiently retrieve and maintain relational database.

Paper : 6C

Course: E– commerce application development

Course Outcomes:

1. To apply in an integrative and summative fashion the students' knowledge in all fields of business studies by drafting a website presence plan.
2. To understand the factors needed in order to be a successful in ecommerce
3. To gain the skills to bring together knowledge gathered about the different components of building a web presence
6. To critically think about problems and issues that might pop up during the establishment of the web presence
7. To apply Word Press as a content management system (CMS), Plan their website by choosing colour schemes, fonts, layouts, and more.

Paper : 7C

Course: Real Time Governance System

Course Outcomes:

1. Upon successful completion of this course, students will have the knowledge and skills to
2. Understand the terms regarding Governance, E-Governance and RTGS
3. Learn about E-Governance Infrastructure
4. Understand the E-Governance implementation in several countries
5. Understand the E-Governance implementation in several Indian states
6. Understand the applications of RTG

DEPARTMENT OF HISTORY

Semester: I
Ancient Indian History & Culture (From Indus Valley Civil. to 13 Century A.D)
Course Outcomes: After successful completion of this course, the student will be able to:

1. Identify and define various kinds of sources and understand how history books are shaped.
2. Compare and contrast various stages of progress from IVC to Vedic age and analyse the Jain, Buddhist and Vedic faiths.
3. Increase the awareness and appreciation of Transition from Territorial States to Emergence of Empires.
4. Analyse the emergence of the Mauryan and Gupta empires during the "classical age" in India.
5. Evaluate the key facets of ancient society, polity and culture in South India—the feudalism, and the rise of technology and commerce.
6. Critically examine the nature of monarchic rule and develop a comprehensive understanding of cultural evolution during ancient period.
7. Visualize where places are in relation to one another through map pointing.

Semester: II

Medieval Indian History & Culture (1206 A.D To 1764 A.D) Course

Outcomes:

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

1. Understand the socio, economic and cultural conditions of medieval India.
2. Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans
3. Describe the advent of Islam in India and study the traces of political and cultural expansion of Turks & Afghans
4. Explain the Administration and art and architecture of Vijayanagar Rulers, Mughals and also analyse the rise of the Marathas and the contribution of Shivaji
5. Evaluate the establishment of the British rule in India and understand the dangerous consequences disunity at all levels
6. Analyse the emergence of composite culture in Indian
7. Visualize where places are in relation to one another through map pointing

Semester: III

Modern Indian History & Culture (1764-1947 A. D)

Course Out comes: After successful completion of this course, the student will be able to:

1. Unearth the true nature of the British rule and its disastrous impact on Indian economy and society
2. Gauge the disillusionment of people against the Company's rule even during the early 19th century
3. Assess the causes and effects of Reformation movements and also inspire the public to overthrow inequalities of the present-day society
4. Assess the causes and effects of Reformation movements and also inspire the public to overthrow inequalities of the present-day society
5. Assess the causes and effects of Reformation movements and also inspire the public to overthrow inequalities of the present-day society
6. Rise above petty parochial issues after understanding the sacrificial saga of freedom struggle
7. Evaluate the undercurrent of communal politics that led to India's partition and identify the enemies of India's integrity and sovereignty
8. Visualize where places are in relation to one another through map pointing

Semester: IV

History & Culture of Andhra (from 1512 to 1956 AD)

Course Out comes: After successful completion of this course, the student will be able to:

1. Interpret social and culture transformation from medieval to modern Andhra
2. Relate key historical development during medieval period occurring in costal Andhra and Telangana regions and analyse socio-political and economic changes under Qutbshahi rules.
3. Relate key historical development during medieval period occurring in costal Andhra and Telangana regions and analyse socio-political and economic changes under Qutbshahi rules.
4. Understand gradual change, or change in certain aspects of society in Andhra, rather than rapid or fundamental changes.
5. Understand gradual change, or change in certain aspects of society in Andhra, rather than rapid or fundamental changes.
6. Explain how the English East India company became the most dominant power and outline the impact of colonial on different aspects in Andhra.
7. Explain how the English East India company became the most dominant power and outline the impact of colonial on different aspects in Andhra.
8. Outline the issues related to caste, women, widow remarriage, child marriage, social reforms and the laws and policies of colonial administration towards these issues.
9. Take pride in the non-violence struggle for Indian Independence and relate the important of peace in every life
10. Apply the knowledge of the regional history to understand the regional, linguistic and other cultural aspirations of the present-day society.
11. Visualize where places are in relation to one another through map pointing.

- ❖ Paper- V (Core Paper) Fifth Semester
- ❖ AGE OF RATIONALISM AND HUMANISM THE WORLD BETWEEN 15^{TH}& 18^{TH} CENTURIES (*History of Modern World (1453 – 1821 A.D)*

Course out comes:

- ➢ 1.The student understands the Feudalism -Geographical Discoveries: Causes. How Portugal Leads and Western World Follows
- ➢ 2.The student observe the relati9ons between USSR AND East European Countries.
- ➢ 3.The student is analysing the Renaissance Movement: - Transformation from Medieval to Modern World; Reformation & Counter Reformation Movements.
- ➢ 4.The student is Aware of the American Revolution (1776) – Opening of New World – Declaration of Independence, 1776.
- ➢ 5.The student understand the French Revolution (1789) – Causes and Results.

HISTORY Paper- VI (Core Paper) Fifth Semester

History & Culture of Andhra Desa (from 12^{th} to 19^{th} Century A.D.)*(History and Culture of Andhra from Satavahanas to 1857 A.D)*

Course out comes:

1. The student is understanding the Andhra during 12^{th}& 13^{th} Centuries A.D.: Kakatiya's and their socio-economic conditions. Architecture & Sculpture. The Age of Reddy Kingdoms

- ➢ 2. The student Observe the Andhra between 14^{th} & 16^{th} Centuries A.D.: Vijayanagara Empire- Sri Krishna Devaraya and his contribution to Andhra Culture – Development of Literature & Architecture.
- ➢ 3.The student is Compare the Andhra through 16^{th}& 17^{th} Centuries A.D.: Evolution of Composite Culture - The QutbShahis of Golkonda
- ➢ 4.Student is Aware on the 18^{th} & 19^{th} Centuries in Andhra: East India Company's Authority over Andhra – Three Carnatic Wars – Occupation of Northern Circars and Ceded Districts
- ➢ 5.To analysis the 18^{th}& 19^{th} Centuries in Andhra: Impact of Company Rule on Andhra.

HISTORY Paper – VII-(A): (Elective Paper) Sixth Semester

HISTORY OF MODERN EUROPE (from 19^{th} Century to 1945 A. D.)

(History of Modern World (1821 – 1945)

Course out comes:

1.The student compare the conditions of Industrial Revolution before and after in Europe

2.To understand the Unification Movements in Europe

3.To analysis the Unification Movements in Europe

4.The student is aware of causes and Results of World Wars.

5.Acquire Knowledge of UNO and its Functions

HISTORY Paper – VIII-A-1 (Cluster Elective Paper –1) Sixth Semester

CULTURAL TOURISM IN ANDHRA PRADESH

Course out comes:

1.The student Understand the basic Concepts of Tourism

2.The student is Compare the types of Tourism

3.To Acquire Knowledge of History and Tourism Relationship
4.The student is developing the communication skills as the trainer of Tourist Guide.
5. Practical Knowledge about Field Trip

HISTORY Paper – VIII-A-2 (Cluster Elective Paper –2) Sixth Semester
POPULAR MOVEMENTS IN ANDHRA DESA (1848 TO 1956 A.D.)
(History and Culture of Andhra from 1857 to 2014)

Course out comes:
1.The student understands the Socio Religious Movements in Andhra, special reference to Kandukuri Veeresalingam.
2.The student Observe the Vandemataram Movement in Andhra special reference to Arts College Incident
3 The student is Compare the three phases of Freedom Struggle in Andhra
4 Student is Aware on the Gandhian Period.
5.To analysis the separation of Andhra State and Formation of Andhra Pradesh.

HISTORY Paper – VIII-A-3 (Cluster Elective Paper –3) Sixth Semester

COMTEMPORARY HISTORY OF ANDHRA PRADESH (1956-2014)

Course out comes:
1.The student Understand the Socio-Economic Changes in Andhra Pradesh – River Projects & Infrastructural Development-Regional Politics – Emergence of Telugu Desam Party.
2. The student is Compare the Growth of Leftist Ideology – Marxist & Radical Literature. Naxalbary Movement
3. To Acquire Knowledge of Dalit Movement, Struggle for Identity – Demand for Political Space.
4. The student aquires knowledge on Jai Telangana Movement (1969) – Mulki Rules – Legal Battle - Jai Andhra Movement (1972) – Six Point Formula (1973).
5. The student gains knowledge on Bifurcation of Andhra Pradesh: Power Politics- Telangana Rastra Samiti – Movements for separate Telangana & unified Andhra Pradesh – Formation of Telangana State (2014).

DEPARTMENT OF ECONOMICS

SEMESTER-I, COURSE-I MICRO ECONOMIC ANALYSIS No. of Credits: 4

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge)

The differences between microeconomic analysis and macroeconomic analysis Various laws and principles of microeconomic theory under consumption.

2. Explains (understanding)

Various terms and concepts relating to microeconomic analysis with the help of examples of real life Consumer's equilibrium and consumer's surplus using indifference curve analysis.

3. Various laws and principles of consumption, production, and income distribution

Determination of price and output discriminating different market conditions in short term and long term

1. Critically examines using data and figures (analysis and evaluation)

i. Various laws and principles of microeconomic analysis and market conditions Application of the concept of demand elasticity and its relation with Average and Marginal Revenue.The relationship between average and marginal cost/revenue both in long term and

2. Draws critical diagrams and graphs to explain and examine the application of various laws and principles of microeconomic analysis

Semester-II, Course-2 MACRO ECONOMIC ANALYSIS No. Of Credits: 4

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (knowledge)

Various concepts, definitions ,laws and principles of macroeconomic theory with reference to income, employment, money, banking and finance

2. Explains (understanding)

i. The difference between various concepts and components of national income with illustrations and methods of measuring national income. Various terms, concepts, laws and principles, theories relating to income, employment, consumption, investment, money, price-level and phases of trade cycles. Functions of commercial banks and central bank, creation and control of credit

3. Critically examines using data and figures (analysis and evaluation)

i. In order to understand the interrelationship between various components of national income The theories of macroeconomics with reference to their assumptions, implications and applicability. Empirical evidences of Consumption and Investment Functions and factors Influencing them

4. Draws critical formulae, diagrams and graphs.

Consumption and investment functions; concepts of multiplier and accelerator. Price indices, inflation and trade cycles

III SEMESTER, DEVELOPMENT ECONOMICS No. Of Credits: 4

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way(Knowledge): Various concepts and definitions and indicators relating to economic growth and Development including recent developments

2. Explains(understanding):

a) Distinction between growth and development with examples
b) Characteristics of developing and developing economies and distinction between the two
c) factors contributing to development, Choice of Techniques and a few important models and strategies of growth

3. Critically examines using data and figures (analysis and evaluation)

a. the theoretical aspects of a few models and strategies of economic growth
b. role and importance of various financial and other institutions in the context of India's economic development

4. Draws critical diagrams and graphs.

a. to explain the models and strategies
b. to highlight empirical evidences to support the strategies

IV Semester ECONOMIC DEVELOPMENT-INDIA & ANDHRA PRADESH No of Credits-04

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge)

a. leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses

b. Objectives, outlays and achievements of economic plans and growth strategies

2. Explains(understanding)

a. Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies.

b. Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and infrastructure issues of AP economy

c. Indian Tax system, recent changes, issues of public expenditure and public debt, recent finance commissions and devolution of funds

d. Major issues of economic development of Andhra Pradesh after bifurcation and Central assistance

3. Critically examines using data and figures (analysis and evaluation)

a. Leading issues of current importance relating to India and AP economy, major policies and programmes

b. Covid– 19 and its impact on Indian economy

4. Uses official statistical data and reports including tables and graphs

a. To explain the achievements of Indian economy with reference to the objectives of Planning and policy and make critical evaluation.

IV Semester, STATISTICAL METHODS FOR ECONOMICS No of Credits-04

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way(Knowledge)
   a. the definitions, terms and their meaning relating to statistical methods
   b. various formulae used to measure central tendency, correlation regression and Indices
2. Explains(understanding)
   a. Importance of statistics and its applications
   b. The method of classification of primary data
   c. Uses of Correlation and Regression analysis, time series and index numbers in economic analysis
3. Analyses and solves using given data and information (analysis and evaluation)
   a. different kinds of statistical problems using various principles and formulae relating to central tendency, correlation, regression, time series and indices
   b. to interpret data and suggest solutions to economic problems
4. Draws critical diagrams and graphs.
   a. Histogram, Frequency Polygon and Frequency Curve
   b. More than cumulative and less than cumulative frequency curves (Ogive)
   c. Different types of Bar diagrams
   d. Pie Diagram and its uses in economic analysis

V Semester ECONOMIC DEVELOPMENT AND INDIAN ECONOMY No of Credits-04

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (Knowledge)
   i. leading issues of Indian economic development with reference to potential for growth, obstacles and policy responses. Objectives, outlays and achievements of economic plans and growth strategies
2. Explains (understanding)
   - Available Resources, demographic issues, general problems of poverty and unemployment and relevant policies.
   - Sector specific problems, remedial policies and their effectiveness relating to Agriculture and Industrial Sectors of Indian and AP economy and infrastructure issues of AP economy.
   - 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
3. Critically examines using data and figures (analysis and evaluation)

- Leading issues of current importance relating to India and AP economy, major policies and programmes.
- Covid– 19 and its impact on Indian economy

4. Uses official statistical data and reports including tables and graphs

i. To explain the achievements of Indian economy with reference to the objectives of planning and policy and make critical evaluation.

V Semester INDIAN AND ANDHRA PRADESH ECONOMY No of Credits:04

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

- Understands the importance of agriculture in Indian Economy.
- Understands agriculture price policy, crop insurance and food security.
- Acquire basic understanding on various industrial policies in India.
- Understands the role of FDI in economic development.
- Describes the service sector in India.
- Analyses the growth trends in various Five year plans in India
- Understands various Economics Indicators of Andhra Pradesh GSDP
- Understands the role of SEZ in balanced regional Development

VI Semester AGRICUTURAL ECONOMICS (Elective) No of Credits-04

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

- Understands the factors affecting the agricultural development.
- Analyses the interdependence between agriculture and industry.
- Understands the input-output relations in farm production.
- Understands the agrarian reforms and their role in farm production
- Describes the relation between farm size and productivity in A.P
- Understands the impact of Green revolution on Indian as well as AP economy
- Understands the policy controls and regulations relating to agro-industries.

VI Semester AGRIBUSINESS ENVIRONMENT IN ANDHRA PRADESH No of Credits-04

(Cluster Elective-1)

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

- Understands Performance of Agricultural in AP
- Understands the backward and forward linkages of agriculture with the rest of the economy
- Understands the agriculture credit, input market and product markets.
- Understands cropping and livestock sectors and its inter-linkages
- Understands the performance, export and imports of agricultural products.
- Understands various legislations relating to agriculture marketing in India.

VI Semester, AGRICULTURAL OUTPUT MARKETING No of Credits-04

(Cluster Elective-2)

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

- Understands functioning of agricultural marketing organizations
- Understands the marketing of various agricultural commodities
- Understands the problems and challenges in agriculture marketing
- Understands the state intervention in agriculture marketing
- Understands inter-regional and international trade in agriculture
- Understands WTO and Indian Agriculture with special reference to Andhra Pradesh.

VI Semester, PROJECT WORK

- Students attains practical and field Experience on Agricultural Marketing Activities.
- Attains the field experience in respective fields
- Improves the skill of report writing
- Improves the presentation skills

DEPARTMENT OF POLITICAL SCIENCE

1st Semester:

Course1A: Fundamentals of Accounting

Learning Outcomes:

At the end of the course, the student will able to;

At the end of the course, the student will able to learn

Identify transactions and events that need to be recorded in the books of accounts.

Equip with the knowledge of accounting process and preparation of final accounts of sole trader.

Develop the skill of recording financial transactions and preparation of reports in accordance with GAAP.

Analyze the difference between cash book and pass book in terms of balance and make reconciliation.

Critically examine the balance sheets of a sole trader for different accounting periods.

Design new accounting formulas & principles for business organisations.

Course 1B: Business Organization and Management

Learning Outcomes:

Understand different forms of business organizations.

Comprehend the nature of Joint Stock Company and formalities to promote a Company.

Describe the Social Responsibility of Business towards the society.

Critically examine the various organizations of the business firms and judge the best among them.

Design and plan to register a business firm. Prepare different documents to register a company at his own.

Articulate

new models of business organizations.

Course 1C: Business Environment

Learning Outcomes:

At the end of the course, the student will able to;

Understand the concept of business environment.

Define Internal and External elements affecting business environment.

Explain the economic trends and its effect on Government policies.

Critically examine the recent developments in economic and business policies of the Government.

Evaluate and judge the best business policies in Indian business environment.

Develop the new ideas for creating good business environment.

IInd SEMESTER

Course 2A: Financial Accounting

Learning Outcomes:

At the end of the course the student will able to;

Understand the concept of consignment and learn the accounting treatment of the various aspects of consignment.

Analyze the accounting process and preparation of accounts in consignment and joint venture.

- Distinguish Joint Venture and Partnership and to learn the methods of maintaining records under Joint Venture.
- Determine the useful life and value of the depreciable assets and maintenance of Reserves in business entities.
- Design an accounting system for different models of businesses at his own using the principles of existing accounting system.

Course 2B: Business Economics

Learning Outcomes:

At the end of the course, the student will able to;

- Describe the nature of economics in dealing with the issues of scarcity of resources.
- Analyze supply and demand analysis and its impact on consumer behaviour.
- Evaluate the factors, such as production and costs affecting firms behaviour.
- Recognize market failure and the role of government in dealing with those failures.
- Use economic analysis to evaluate controversial issues and policies.
- Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business.

Course 2C:Banking Theory and Practice

Learning Outcomes:

At the end of the course, the student will able to;

- Understand the basic concepts of banks and functions of commercial banks.
- Demonstrate an awareness of law and practice in a banking context.
- Engage in critical analysis of the practice of banking law.
- Organize information as it relates to the regulation of banking products and services.
- Critically examine the current scenario of Indian Banking system.
- Formulate the procedure for better service to the customers from various banking innovations.

IIIRD SEMESTER

DSC 1 C – Advanced Accounting (General&Computer Applications)

Learning Outcomes:

- At the end of the course, the student will able to:
- Understand the concept of Non-profit organisations and its accounting process.
- Comprehend the concept of single-entry system and preparation of statement of affairs.
- Familiarize with the legal formalities at the time of dissolution of the firm .
- Prepare financial statements for partnership firm on dissolution of the firm.
- Employ critical thinking skills to understand the difference between the dissolution of the firm and dissolution of partnership.

DSC 2 C BUSINESS STATISTICS (General &Vocational)

Learning Outcomes:

At the end of the course, the student will able to:

- Understand the importance of Statistics in real life.
- Formulate complete, concise, and correct mathematical proofs.
- Frame problems using multiple mathematical and statistical tools, measuring relationships by using standard techniques.
- Build and assess data-based models.
- Learn and apply the statistical tools in day life.
- Create quantitative models to solve real world problems in appropriate contexts.

DSC 3C – Marketing (General only)

Learning Outcomes:

At the end of the course, the student will able to:

- Develop an idea about marketing and marketing environment.
- Understand the consumer behaviour and market segmentation process.

- Comprehend the product life cycle and product line decisions.
- Know the process of packaging and labeling to attract the customers.
- Formulate new marketing strategies for a specific new product.
- Develop new product line and sales promotion techniques for a given product.
- Design and develop new advertisements to given products.

IV SEMESTER

BUSINESS LAWS (General & Computer Applications)

Learning Outcomes:

At the end of the course, the student will able to:

- Understand the legal environment of business and laws of business.
- Highlight the security aspects in the present cyber-crime scenario.
- Apply basic legal knowledge to business transactions.
- Understand the various provisions of Company Law.
- Engage critical thinking to predict outcomes and recommend appropriate action on issues relating to business associations and legal issues.
- Integrate concept of business law with foreign trade.

INCOME TAX (GENERAL & VOCATIONAL)

Learning Outcomes:

At the end of the course, the student will able to:

- Acquire the complete knowledge of the tax evasion, tax avoidance and tax planning.
- Understand the provisions and compute income tax for various sources.
- Grasp amendments made from time to time in Finance Act.
- Compute total income and define tax complicacies and structure.
- Prepare and File IT returns of individual at his own.

AUDITING (GENERAL & VOCATIONAL)

Learning Outcomes:

At the end of the course, the student will able to:

- Understanding the meaning and necessity of audit in modern era.
- Comprehend the role of auditor in avoiding the corporate frauds.
- Identify the steps involved in performing audit process.
- Determine the appropriate audit report for a given audit situation.
- Apply auditing practices to different types of business entities.
- Plan an audit by considering concepts of evidence, risk and materiality

CORPORATE ACCOUNTING

Learning Outcomes:

At the end of the course, the student will able to:

- Understand the Accounting treatment of Share Capital and aware of process of book building.
- Demonstrate the procedure for issue of bonus shares and buyback of shares.
- Comprehend the important provisions of Companies Act, 2013 and prepare final accounts of a company with Adjustments.
- Participate in the preparation of consolidated accounts for a corporate group.
- Understand analysis of complex issues, formulation of well-reasoned arguments and reaching better conclusions.
- Communicate accounting policy choices with reference to relevant laws and accounting standards.

COST AND MANAGEMENT ACCOUNTING

Learning Outcomes:

At the end of the course, the student will able to:

- Understand various costing methods and management techniques.
- Apply Cost and Management accounting methods for both manufacturing and service industry.
- Prepare cost sheet, quotations, and tenders to organization for different works.
- Analyze cost-volume-profit techniques to determine optimal managerial decisions.

- Compare and contrast the financial statements of firms and interpret the results.
- Prepare analysis of various special decisions, using relevant management techniques.

GOODA AND SERVICE TAX

Learning Outcomes:

At the end of the course, the student will able to:

- Understand the basic principles underlying the Indirect Taxation Statutes.
- Examine the method of tax credit. Input and Output Tax credit and Cross Utilisation of Input Tax Credit.
- Identify and analyze the procedural aspects under different applicable statutes related to GST.
- Compute the assessable value of transactions related to goods and services for levy and determination of duty liability.
- Develop various GST Returns and reports for business transactions in Tally.

Semester V (w.e.f. 2017-18)

5.1 Business Leadership (General)

Learning Out comes:

- To facilitate the students to learn the concepts of business leadership. After reading three units students should have learn about
- Leadership traits, skills and styles, leadership development.
- Decision making and leadership, power influence.
- Leadership in business organisation, organizational culture.
- Leadership for sustainability, special topics.

5.2 : COST ACCOUNTING (General & Vocational)

Learning Out comes:

- This paper enables the students to get knowledge in various cost concepts in Cost Accounting. From this the student can learn-
- Various concepts of Cost accounting and how to compute the Total cost and Profit/Loss.
- Various methods of pricing of Issuing material and various stock levels to be maintained in the store.
- Various methods of wage payment and incentive bonus schemes.
- Allotment and Apportionment of Overheads.
- The Accounting treatment in Process Costing.
- Various costing techniques like Marginal Costing and Standard costing.

Banking Theory & Practice B.COM. (VOCATIONAL ONLY)

Learning Out comes:

Students gain knowledge in-

- Central banks and commercial banks.
- The opportunity to acquire and develop key skills.
- Development brokerage, mortgage, banking and investment daily Industries.
- Collecting banker pays to the customer the amount of the cheque of credits.
- Different types of customers and its relationship.

Commercial geography:

Learning Out comes:

- To understand the scope and content of Commercial Geography in relation to spatial distribution of Agriculture, Forest Resources and Industrial Production.
- To acquaint the students about dynamic aspects of Commercial Geography.

- To acquaint the students about dynamic Nature of Industrial Field in India.
- To make the students of commerce aware about the relationship between the Geographical Factors and Economic Activities.

DSC F 5.5 Purchase Management

Learning Out comes:

- Students will be able to understand-
- he supply management including the services of DGS&D.
- The issue of tenders and process involved in it and preparation of tenders and filling up of tender documents.
- Various buyer-seller relationships like transactional, cooperative and alliance.
- Supply chain management with JIT.

DSC F 5.5 Central Banking(Elective)

Learning Out comes:

Students gain knowledge in-

- Central banks and commercial banks.
- The opportunity to acquire and develop key skills.
- Development brokage, mortage, banking and investment daily Industries.
- Collecting banker pays to the customer the amount of the cheque of credits.
- Different types of customers and its relationship.

DSC F 5.6 Stores Management

Learning Out comes

Students will be able to understand -

- Stores functions and relationship with other Departments.
- Recent developments in material issues.
- Stock controlling techniques.
- Health and Safety directives on stores operations.
- Preparation of procedure manuals relating to Stores.

5.6 Rural Farm Credit

Learning Out comes:

Students gain knowledge in

- What is Rural credit & Farm Credit
- The opportunity to acquire and develop key terminology.
- Sources of Rural and Farm Credit.
- Different types of Lending Institutions for Rural and Farm Credit.
- Strategies for Growth and analysis of Farm Credit.

Semester VI (w.e.f. 2017-18)

DSC 1 G 6.2 : Marketing (General & Vocational)

Learning Out comes:

By learning the subject the student can get knowledge in the activities of manufacturer after production. This paper is helpful in Post graduation level also. The student can learn-

- Various concepts of marketing and its environment.
- The buying decision process and various marketing segments.

- About the dealing of new products, product mix and product line decisions.
- The attitude of marketing personnel in pricing decisions.
- Promotional and distribution activities of marketing department of a concern.
- It helps the student to enter into any marketing profession.

DSC 2G 6.3 Auditing (General & Computer Applications)
Learning Out comes:
The students are able to know and understand -

- The role of auditor in checking corporate frauds.
- Different types of audit and planning of audit before commencing audit in any company/ organization .
- Vouching of transactions as a part of investigation.
- Preparation of audit report following relevant provisions of Companies Act, 2013.

DSC 3G 6.4 : Management Accounting
Learning Out comes:
This Subject enables the student to learn about various techniques followed by the manufacturer . This subject is also helpful to the student in Post graduation level. From this paper the student can learn-

- Analysis of various financial statements.
- Analysis and interpretation of Accounting Ratios.
- To prepare the funds flow statements and Cash flow statements.
- The application of Marginal costing techniques.

Tally with GST (B.Com Vocational)
Learning Out comes:
To enable the students learn -

- About GST introduced recently and its feasibility over VAT .
- Computation GST using Tally and filing of quarterly filling returns.
- Latest amendments, GST Council

DSC H 6.5 : Agricultural and Rural Marketing

Learning Out comes:
Students are able to know and learn-

- Rural markets and agricultural yards.
- Rural vs Urban consumer.
- Problems and challenges in agricultural marketing.
- Agricultural mechanism to support farmers.
- Role of Government and Non government agencies in development of rural markets and agriculture.

DSC H 6.5 - Financial Services
Learning Out comes:
Students are able to know and learn-

- Role of Financial Services.
- Need and Importance , Types of Financial services
- Problems and challenges faced by Finacial Service Organizations.
- Role of Government and Non government agencies in development of rural markets and agriculture

DSC H 6.6 - Warehouse Management
Learning Out comes:
The students will be able-

- Understand different warehouse managing systems.

- Prepare and maintain inventories ,
- Understand the risk factors in ware house management and designs his own measures, for safety and security.
- Understand different warehousing practices .
- Solve problems that arise in warehouse management .

DSC H 6.6 - Marketing of Financial Services
Learning Out Comes:
Student able to learn

- Financial services meaning and their Role
- Pricing strategis adopted
- Marketing mix of financial services.

ASD Government Degree College for Women (A), Kakinada
Course Outcomes – Arts & Humanities
DEPARTMENT OF ENGLISH

General English: PAPER I

PROSE, POETRY; SHORT STORY ONE ACT PLAY & LANGUAGE ACTIVITY:

- To develop LSRW Skills among rural background
- To enable the learners to real, understand and comprehend the literary text.
- To improve their communicative skills for their daily conversational practice
- To acquire the required level of linguistic knowledge
- To be able to use appropriate vocabulary according to the situation to meet their immediate needs

GENERAL ENGLISH: PAPER II

PROSE, POETRY; SHORT STORY AND DRAMA

- To present the ideas coherently in a logical and convincing manner
- To analyse and understand cultures in a sensitive manner
- To expose the learners to the greater philosophical aspects of the nature
- To realize about gender bias irrespective of the religion, caste and country
- To know the significance of simplicity rather than materialistic life.

To introduce the learners the causes and effects of extreme emotions

SEM III : GENERAL ENGLIS 301

- To enable undergraduate students to cope up with the academic aspects to be carried out in English across the curriculum
- To emphasize the student on learning activity especially intra-class and inter-class student learning activity
- To understand the feelings of the literary text.
- To appreciate the connotations of poetic language
- To perceive the deeper nuances of creativity

CSS

- To know the benefits of sounds and symbols of the English language for effective presentation
- To demonstrate the utterance of speech with Activate & Passive articulators and to appreciate the speech sound
- To develop the conversational skills according to the need
- To equip the students with different presentation skills like – Debate , Group Discussion etc, for their best performances in student centric activities

To interpret the text using right vocabulary

SEM IV : CSS

Communication Skills – and Soft –Skills III

- To enhance higher order skills such as analytical skills , problem solving, reviewing and critical thinking
- To inculcate passion for soft skills to master them and resolves practical problems and professional crisis
- To focus on the aspects of the writing skills-drafting and documentation skills for professional excellence
- To enlighten them about paraphrasing and summarizing of a text and bringing out the differences
- To illustrate about the types of letters / format with special reference to E- Correspondence
- To equip the students for preparing Resume/CV/Bio data in various formats for their dreaming career To enhance higher order skills such as analytical skills , problem solving, reviewing and critical thinking
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