



A.D.M College For Women

(Autonomous)

Nationally Accredited with 'A' by NAAC (Cycle-III)

Nagapattinam -611 001



VALUE ADDED COURSES

SYLLABUS

UG V Semester		
S. No	COURSES	SUBJECT
1.	History	Introduction to Civil Services
2.	Economics	Economics of Insurance
3.	Commerce	Disaster Management
4.	Mathematics	Programming in R Language
5.	Chemistry	Business Skills for Chemists
6.	Zoology	Aquarium Fish Keeping
7.	Biochemistry	Laboratory Safety Rules
8.	Computer Science & BCA	Multimedia Technology - I
9.	BBA	Goods and Services Tax (GST)
10.	Physics	Everyday Physics
11.	Tamil	சிந்தனையியல்
12.	English	Objective English for Competitive Examinations
13.	Geology	Field Geology

UG VI Semester (Multidisciplinary)		
S. No	COURSES	SUBJECT
1.	History	Introduction to Civil Services
2.	Economics	Basics of Economics
3.	Commerce	E- Banking
4.	Mathematics	Statistical Programming using SPSS
5.	Chemistry	Chemistry in Every Day life
6.	Zoology	Value Added Sea Food Preparation
7.	Biochemistry	Home care Management
8.	Computer Science & BCA	Multimedia Technology - II
9.	BBA	E - Business
10.	Physics	Renewable Resources and Application of Solar Energy
11.	Tamil	ஊடகவியல்
12.	English	Objective English for Competitive Examinations
13.	Geology	Spatial Modelling

DEPARTMENT OF HISTORY

Semester-V /VI Value Added Course	INTRODUCTION TO CIVIL SERVICES	Course Code: -
Instruction Hours: 30	Credits: 2	Exam Hours: 3
Internal Marks -25	External Marks-75	Total Marks: 100

Course Objectives:

- To Understand the Role of Bureaucracy.
- To Study the origin and growth of Civil Service in India.
- To know the Recruitment Process in Civil Service.
- To familiar with Examination Pattern for Civil Service Examination.
- To acquire knowledge on Role of Ethics in Civil Service.

Unit I	Indian Civil Service: Definition-Evaluation of Civil Service under British-Bureaucracy – Categories of Bureaucracy through the ages.	6 Hrs
Unit II	Recruitment under British: Indian Civil Services –classification of services and Posts –Provincial civil services – Selection of mode.	6 Hrs
Unit III	All India Services and Recruitment: IAS, IPS, IFS, IRS- the Features- Union Public Service Commission –Scheme and Subject for the Preliminary and Main Examination – Interview - In service training for IAS.	6 Hrs
Unit IV	Tamilnadu State Services: TNPSC –Syllabus- Scheme and Examination- Interview.	6 Hrs
Unit V	Role of Ethics in Civil Service: Self Discipline – Communication skills – Moral responsibilities – Implementation of rule of Law.	6 Hrs

Reference Books:

1. Dr. B.L. Fadia & Dr. Kuldeep Fadia, Elements of Public Administration, Sahiya Bhavan Publications, Agra, 2005.

2. Dr. B.L. Fadia, Administration Theory, Sahiya Bhavan Publications, Agra, 2005.

3. Vishnu Bhagavan, Vidhya Bhushan, Indian Administration, S.Chand & co, Ltd, New Delhi, 4th ed, 2005.

e- Resources:

1. <http://www.allindiaservices/gov.in>

2. <http://www.india.positionclass.in>

Course Outcomes:

On completion of the course the learner will be able to

CO 1:	The Students will be able to attend the Civil Service Examination.
CO 2:	Gain Knowledge on Classification of Services
CO 3:	Acquire Knowledge on All India Services.
CO 4:	Earn knowledge on State Services.
CO 5:	Develop Communication skills.

Department of Economics

SEMESTER V

ECONOMICS OF INSURANCE

UNIT I: Introduction to Insurance

Meaning and Definition of Insurance- Features of Insurance -Functions of insurance – Types of Insurance –Fundamental Principles of Insurance- Importance of Insurance - General Insurance - Insurance and Economic Development.

UNIT II Life Insurance and Health Insurance

Meaning and Definition of Life insurance and Health Insurance- Types of Health Insurance Policies – Health Insurance schemes in India - Features of Life Insurance – Advantages of Life Insurance- Fundamental Principles of Life Insurance.

UNIT III: Introduction to Risk Management

Definition of Risk – Selection of Risk or Underwriting of Risk - Classification of risk - Tools of the Risk - Risk Management Process- Determination of Objectives.

UNIT IV legal Dimensions of Insurance and Growth of Insurance Business in India

Introduction- The Insurance Act, 1938 – Life Insurance Corporation Act , 1956 – General Insurance Business (Nationalisation) Act,1972 – Consumer Protection Act,1986 – Insurance Regulation and Development Authority(IRDA).

UNIT V: Insurance Marketing

Introduction - Concept of Insurance Market - Marketing Strategies of Insurance Companies - Benefits of Bank Assurance – Steps in Personal Selling or Selling Process.

Text books:

1. Periyasamy, P. (2005), Principles and Practice of Insurance, Himalaya Publishing House, Mumbai.
2. Bodla, B.S., Garg,M.C.and Singh K.R. (2004), Insurance, Fundamentals, Environment, Procedures , Deep and Deep Publications Pvt Limited, New Delhi.
3. Muthy,A (2006), Elements of Insurance, Margham Publications,Chennai.

References:

1. Jyotsna Sethi and Nishwan Bhatia, (2008), Elements of Banking and Insurance, PHI Learning Pvt Limited, New Delhi.
2. Kanika Mishra, (2010), Fundamental of Life Insurance Theories and Applications, PHI Learning Pvt Limited, New Delhi.
3. Emmett J.Vaughan and Therese Vaughan, (2007), Fundamentals of Risk and Insurance, Pasupathi Printers P.Ltd, New Delhi.
4. Dharmaraj,E. (2009), Elements of Insurance, SIMRES Publishers, Chennai.
5. Madhukar Pawar, R. (2012), Fundamentals of Insurance, Chandralok Prakashan, Kanpur.

Department of Economics

SEMESTER VI

BASICS OF ECONOMICS- MULTI DISPLINARY

UNIT I MICRO ECONOMICS

Meaning , Nature and Scope of Economics – Concept of Demand and Supply, Elasticity concepts- Future of Production Concepts of Costs and Revenue – Market Structure – Perfect and Imperfect – Monopolist, Oligopoly, Duopoly

UNIT II MACRO ECONOMICS

National income Concepts – GNP, NNP, GDP Methods of Calculation of National Income and Employment – Determinants of Consumption, Saving and Investment.

UNIT III MONEY AND BANKING

Concepts of Money – Commercial Banks and Credit Creation – Central bank and its Functions.

UNIT IV MONEY SUPPLY AND PRICE LEVEL

Measures of Money Supply: Velocity of Money – Determination of price Level – Inflation and Deflation – Causes and Remedies.

UNIT V PUBLIC FINANCE

Budget – Types of Budget – Direct and Indirect tax – Development and Non-Development Expenditure.

Text books:

1. Dr. S.Sankaran - Micro Economics, Margham Publications, Madras, 2015.
2. S.Sankaran - Fiscal Economics. Margham Publications, Chennai,2015.

References:

1. Ruddar Dutt and K.P.M Sundaram - Indian Economy, S .Chand and Co, Ltd, New Delhi, 2015.
2. Dr. Sankaran. S - Indian Economy, Margham publications,2015.

Department of Commerce
SEMESTER V
DISASTER MANAGEMENT

Maximum : 100 Marks

Instruction Hours : 30

Exam. Hours : 3

Objective: To impart knowledge on various types of disasters and its efficient management.

UNIT I Introduction

Disaster Management -Disaster- Meaning-importance of managing disasters- Plan for Disaster Management –Managing relief measures- Types of disaster. **6 Hrs.**

UNIT II Natural Disasters:

Natural Disasters – Types –Windstorms- Floods-Earthquakes- Avalanches – Tsunamis – Volcanic Eruptions- Global Warming–Forest fires – Insect swarms- Asteroid Impacts – Extreme Temperature **6 Hrs.**

UNIT III Man-made Disasters:

Accidental Disasters – Technological Hazards - Industrial hazards, structural collapse, power outage - fire– Hazardous Materials- Radiation – Social Disasters, Hijacking, Riots, Crowded Rushes -Political Disasters -Bombings, Shooting and hostages- Terrorism **6 Hrs.**

UNIT IV Managing the Disaster

Disaster Management - Disaster Management at local level – Government’s role in Disaster Management – Role of Remote sensing-Components of disaster management-Key factors - Co-operation and Co-ordination- Managing disaster in Coastal areas **6 Hrs.**

UNIT V Impact of Disasters and Relief and Rehabilitation:

Psychological Impact of Disasters – Principles of Psychological intervention following disasters –Specific intervention techniques –Stress reduction techniques - Relief and Rehabilitation – Poverty reduction and Disaster Management – Effects of disasters in specific groups. **6 Hrs.**

Books for reference:

1. Mukesh Dhunna., Disaster Management, Vayu Education of India, 2/25, Ansari Road, Daryaganj, New Delhi-2
2. Dr. Kumarasamy K., Environmental Studies. Jazym Publications,1- Post Office Street, Kajamalai, Tiruchirapalli -23

Question Paper Pattern

Written Examination

5 Questions to be answered (5 x 20 = 100 Marks)

Essay type questions with internal choice (Questions in “either / or” Model)

Choosing two Questions from each unit.

Maximum - 100 Marks (Passing Minimum 50 Marks)

External - 100 Marks (Passing Minimum 50 Marks)

Internal - Nil

DEPARTMENT OF COMMERCE
SEMESTER VI
E-BANKING- MULTI DISPLINARY

Maximum : 100 Marks

Instruction Hours : 30

Exam. Hours : 3

Objective: To impart practical knowledge on the e-banking practices as a move towards paperless currency.

UNIT I Electronic Banking

E-Banking – Meaning – Definition – Merits and Demerits of E-Banking-
Traditional Vs. E-Banking - E-Wallet – Payment Gateway **6 Hrs.**

UNIT II Online Banking

Online Banking - concept and meaning- need for paperless currency-
Electronic Delivery Channels- Automatic Teller Machine(ATM) –Recycler -
Electronic Fund Transfer(EFT) – RTGS - Uses - Tele-Banking- Banking on
Home Computers **6 Hrs.**

Unit III E-Banking in India

E-Banking in India- basic requirements for e-banking – Govt. Initiatives for
Cashless transactions - the future of e-banking in India **6 Hrs.**

Unit IV E-Banking - Practical

Practical knowledge on using ATM and EFT, Cash Depositing Machine, Pass
Book entry Machine, Password changing, Point of Sale (POS) machine, working
knowledge of online bill payment- insurance premium, electricity bill, phone bill,
ticket booking, online shopping **6 Hrs.**

Unit V E-Banking Security

E-Banking Security- Introduction need for security –Security concepts – OTP –
PIN – Digital Signature – Issues and Remedies **6 Hrs.**

Reference Books

1. C.S. Rayudu, E-Business, Himalaya Publishing House
2. Roger Hunt & John Shelly, Computers and Common sense
3. Bhushan Dewan, E-Commerce

Question Paper Pattern

Written Examination

5 Questions to be answered (5 x 20 = 100 Marks)

Essay type questions with internal choice (Questions in “either / or” Model)

Choosing two Questions from each unit.

Maximum	- 100 Marks (Passing Minimum 50 Marks)
External	- 100 Marks (Passing Minimum 50 Marks)
Internal	- Nil

Department of Mathematics
SEMESTER V
STATISTICAL PROGRAMMING USING SPSS

Unit I

Brief Introduction about SPSS and Basic Statistics: Opening a File – Data View - Variable View – Entering Data into the Data Editor – Saving the Data File.

Unit II

Editing and Manipulating Data with SPSS : Insert a New Variable – Rearranging the order of variables in variable view – Deleting and Rearranging Items from the Viewer.

Unit III

Graphs and Charts: Bar Charts – Simple Bar Charts – Clustered Bar Charts – Multiple Bar Charts – Pie Chart – Line graphs - Histogram.

Unit IV

Descriptive Statistics : Measures of Central Tendency: Arithmetic Mean – Median – Mode – **Measures of Dispersion:** Standard Deviation – Skewness – Kurtosis.

Unit V

Correlation, Regression and Sample Test: Correlation and Regression Lines X on Y and Y on X - **Comparing Averages: Parametric and Non - Parametric Tests to Compare Averages:** T – test for means – Chi Square test for goodness of fit with SPSS.

Books for Study:

SPSS For You, A.Rajathi & P.Chandran , MJP Publishers.

DEPARTMENT OF MATHEMATICS

SEMESTER VI

R – LAB - MULTI DISPLINARY

Unit I

R language Essentials: Expressions and objects. Assignments, creating vectors, vectorized arithmetic, creating matrices, operations on matrices, lists.

Unit II

R language Essentials: data frames - creation, indexing, sorting and conditional selection; examples.

Unit III

R Programming: conditional statements if and if else; loops - for, while, do - while; functions - built - in and user defined;

Unit VI

R Programming: Data entry - reading from text file, data editor, examples.

Unit V

Descriptive Statistics and Graphics: Obtaining summary statistics; generating tables; Bar plots. Pie charts, Box plots, Histogram; exercises.

Books for Study

1. Michael J.Crawley (2007), The R Book, John Wiley and Sons Ltd. 2. Peter Dalgaard (2008), Introductory Statistics with R, 2nd edition, Springer.

Lab Exercises:

1. Operations on vectors and matrices
2. Creating and manipulating data frames.
3. Writing user defined functions for finding arithmetic mean, median,
4. Writing user defined functions for finding median

5. Writing user defined functions for finding factorial.
6. Writing user defined functions for finding matrix addition
7. Writing user defined functions for finding matrix multiplication.
8. Bar charts.
9. Pie charts.
10. Box plots for single and multiple groups.

Department of Chemistry
SEMESTER V
BUSINESS SKILLS FOR CHEMISTS

Internal : 25

Semester : V & VI

External : 75

No. of Hours / Week : 3

Exam Hours : 3

redit: 2

UNIT - I :

Business Basics Key business concepts: Business plans, market need, project management and routes to market.

UNIT - II:

Chemistry in Industry Current challenges and opportunities for the chemistry-using industries in India and global economies.

UNIT- III:

Chemistry in Industry Current challenges and opportunities for the chemistry-role of chemistry in India and global economies.

UNIT - IV:

Making money Financial aspects of business with case studies Intellectual property Concept of intellectual property, patents.

UNIT - V:

Preparation and uses : Hair dye, hair spray, shampoo, suntan lotions, face powder, lipsticks, talcum powder, nail enamel, creams (cold, vanishing and shaving creams), antiperspirants and artificial flavours.

DEPARTMENT OF CHEMISTRY
SEMESTER VI- MULTI DISPLINARY

CHEMISTRY IN EVERY DAY LIFE		
Instruction Hours: 30	Credits: 2	Exam Hours: 3
Internal Marks -25	External Marks-75	Total Marks: 100

Course Objectives:

- To understand the chemistry of Water.
- To learn the importance of fertilizer, manure, fungicide etc.,
- To gain knowledge about additives and flavouring agents in food.
- To learn manufacture and uses of cement, rubber and rocket propellant.
- To know the difference between dye and fibre.

Unit I	<p>WATER CHEMISTRY</p> <p>Water pollution: Sources and effects of water pollution (Domestic, Industrial, Agricultural) Eutrophication.</p> <p>Heavy metals such as Hg, Cr, Cd, Zn, Cu and metals like Pb, As, Ba, Temperature, Radio activity, synthetic detergents etc.,</p> <p>(Content – 4 Hrs, Assessment – 2 Hrs) (6Hrs)</p>
Unit II	<p>AGRICULTURAL CHEMISTRY</p> <p>Difference between fertilizer and manure – Superiority of manure over fertilizer - Biofertilizers: Rhizobium, Azatobacter, Cyano bacteria. Pesticides: Classification on the basis of mode of action, types of pests and Chemical nature with examples – safety measures while using pesticides.</p> <p>Fungicides, Herbicides, Acaricides, Rodenticides, Repellants, Fumigants, Defoliants (Definitions and Examples).</p> <p>(Content – 4 Hrs, Assessment – 2 Hrs) (6Hrs)</p>

Unit III	<p>FOOD CHEMISTRY</p> <p>Food additives – colouring (Natural and synthetic colours)-List of permitted colours (Curcumin, Riboflavin, Betacarotene, Plain Caramel and amaranth)-description and uses.</p> <p>Flavouring agents – Anti oxidants – Emulsifiers- Acidulants and beverages. Soft drinks aerated water (ingredients and side effects).</p> <p>(Content – 4 Hrs, Assessment – 2 Hrs) (6Hrs)</p>
Unit IV	<p>INDUSTRIAL CHEMISTRY</p> <p>Cement – Raw materials – Manufacture of Portland cement and Setting of Cement.</p> <p>Rubber – Vulcanization and users of rubber. Rocket propellant – Solid, liquid and gas propellants.</p> <p>(Content – 4 Hrs, Assessment – 2 Hrs) (6Hrs)</p>
Unit V	<p>MATERIAL CHEMISTRY</p> <p>Dyes and Dyeing process: Difference between dye and pigment -Witt's colour theory, classification of dyes based on application (Direct, Vat, Acid, Reactive, Mordant and Disperse).</p> <p>(Content – 4 Hrs, Assessment – 2 Hrs) (6Hrs)</p>

Text Book:

1. K. Kumarasamy, A. Alagappa Moses and M. Vasanthy, "Environmental studies", Bharathidasan University, Thiruchirappalli.
2. A Thankamma Jacob, A Text Book of Applied Chemistry, 1st edition, Mc Millan India Ltd (1979).

Reference Books:

1. Alex Ramani, "Food Chemistry", MJP publishers (2009), Chennai.
2. Jayashree Gosh, "Text book of Pharmaceutical Chemistry" New Delhi, S. Chand & Company Ltd.,(2003).
3. K. Bagavathi Sundari, "Applied Chemistry" MJP Publishers, (2006) Chennai.
4. Hesse P.R, "A text book of soil chemical analysis" John Murray, New York, 1971.
5. Buchel K.H, Chemistry of Pesticides, John Wiley & Sons New York 1983.

e- Resources:

1. <https://www.topfreebooks.org>.
2. <https://bookboon.com>.

DEPARTMENT OF ZOOLOGY

SEMESTER V

AQUARIUM FISH KEEPING

Internal: 25

Credit:2

External:75

Inst.Hrs.:30

UNIT – I

6 hours

Introduction to Aquarium fish keeping: The potential Scope of Aquarium fish Industry as a cottage Industry. Exotic and endemic species of aquarium fishes.

UNIT – II

6 hours

Biology of Aquarium fishes: Common characters and sexual dimorphism of fresh water and marine Aquarium fishes such as Guppy, Molly, Sword tail, Gold fish, Angel fish, Blue morph, Anemone fish and Butterfly fish.

UNIT – III

6 hours

Food and feeding of Aquarium Fishes: Use of live feed organism, preparation and composition of formulated fish feeds.

UNIT – IV

6 hours

Fish Transportation: Live fish transport – Fish handling, Packing and forwarding techniques.

UNIT – V

6 hours

Maintenance of Aquarium: General Aquarium maintenance – bought for setting up an Aquarium fish farm as a cottage Industry.

Text Book

1. Aquarium fish: A definitive Guide to identifying and keeping freshwater and Marine fishes by Gina Sandford and Mary Bailey.

Reference Book:

1. Freshwater Aquarium by David Alderton
2. Aquarium Fish by Dick Mills

DEPARTMENT OF ZOOLOGY
SEMESTER VI- MULTI DISPLINARY
SEA FOOD PREPARATION

Internal: 25

External:75

Credit:2

Inst.Hrs.:30

Unit-I

6 hours

Fish Preservation Methods: Chilling-Freezing-Curing-Canning-Marinating-Boiling-Fermentation-Irradiation-Freeze-drying

Unit-II

6 hours

Traditional Methods: Salting- Drying-Marinating-Fermentation. Preserved seafood poisoning: Histamine poisoning. Seafood poisoning of bacterial origin: *salmonella*, *staphylococcus*, *Botulism*- Pink spoilage and Dun spoilage of salted fish.

Unit-III

6 hours

Preparation technique of Value added sea food: Lobster- Crab- Shrimp- Crayfish-Fish.

Unit-IV

6 hours

Packaging of seafood products: Types of Packaging Material -Packaging of fresh fish- Packaging of frozen fish -Packaging -of Individually Quick Frozen (IQF) Products-Packaging of thermal process fish products.

Unit-V

6 hours

Quality assessment of fishery products: Sensory method: Quality Index method(QIM)- Non-Sensory method : Biochemical methods-Biological methods-Physical methods.

Text Book:

Mishra, R, 2021.Handbook on Fish Processing and Preservation, ISBN: 9789390309351, Narendra publishing House, C-21, Varun Apartment, Sector 9, Rohini, Delhi - 110085

Reference Book:

K.Rathnakumar and R.Kaavya. 2021. Preservation of Fish by Canning. Narendra Publishing House.

DEPARTMENT OF BIOCHEMISTRY

SEMESTER V

Semester-V / ValueAddedCourses-I	LABORATORY SAFETY RULES	Course Code:----- -
Instruction Hours: 2	Credits: 2	Exam Hours: 3
Internal Marks -25	External Marks-75	Total Marks: 100

Course Objectives:

- To enable the students can get knowledge about laboratory safety and Rules.
- Identify their hazardous chemical's
- Learn about the Chemicals causing health hazards
- Learn about the proper procedure for responding to spill
- Understand the chemical inventory

Unit I	Identification of hazard, Categorization methods for elimination of hazard and classify a hazardous chemicals. (6 Hrs)
Unit II	Chemical hazards: laboratory safety, bulk handling of chemicals, Fire and explosion hazards, Fire detection, Prevention ,control, and extinguishments, Industrial layout, Industrial waste management. (6 Hrs)
Unit III	Chemicals causing health hazards: irritants, asphyxiates, anaesthetics, systemic poisons and carcinogens, Chronic and acute exposure, Routes of entry, types of airborne contaminants. (6 Hrs)
Unit IV	Re-label any new transfer bottles. Implement the proper procedures for responding to spills, emergencies or injuries. (6 Hrs)
Unit V	Development and Maintenance of a chemical inventory. (6 Hrs)

Text Book:

1. Safety A personal Focus David L Bever
2. Hand book of Hazardous Air pollutions, Dennis P Nolan P.E
3. Fire Technology, R.S. Gupta
4. Remediation and Treatment Technologies. Dennis P Nolan P.E
5. Fire service Manual (4 volumes)

e- Resources:

1. <https://www.labsafety.org/lab-safety-books>
2. <https://www.labsafety.org/product/lab-safety-guidelines-expanded-e-book>

Course Outcomes:

On completion of the course the learner will be able

CO 1:	<ul style="list-style-type: none">• Understand the legal framework of the Health and Safety at Work etc. Act 1974 and Regulations associated with it
CO 2:	<ul style="list-style-type: none">• Understand the employers', employees' and visitors' duties
CO 3:	<ul style="list-style-type: none">• Evaluate hazards and risks in order to carry out a risk assessment
CO 4:	<ul style="list-style-type: none">• Understand the legal requirement to report any accident or dangerous occurrence
CO 5:	<ul style="list-style-type: none">• Develop risk assessments for scientific laboratories that use chemicals or biological organisms or both

DEPARTMENT OF BIOCHEMISTRY
SEMESTER VI- MULTI DISPLINARY

Semester-VI /ValueAddedCourses (Multidisciplinary courses)-II	HOME CARE MANAGEMENT	Course Code:-----
Instruction Hours: 2	Credits: 2	Exam Hours: 3
Internal Marks -25	External Marks-75	Total Marks: 100

Course Objectives:

- Understand the meaning of management and managerial effectiveness
- Analyze the various causes for food spoilage and apply that in food preservation
- Understand the basic principles of cooking and apply that in the different methods of cooking.
- Understand time pressures and the need for time management.
- Understand the concept of visual pleasure and apply it in flower arrangement

Unit I	<p>FOOD SCIENCES:</p> <p>ICMR recommended basic five food groups. General composition and nutritive value of cereals; pulses and nuts; milk and meat products; vegetables and fruits. (6 Hrs)</p>
Unit II	<p>FOOD PRESERVATION:</p> <p>Food spoilage – Definition, causes, types of spoilage and preventing methods; Preservation of fruits -sugar concentrates; jam and jelly. Pickling - Principle, types and spoilages encountered in pickles. (6 Hrs)</p>
Unit III	<p>COOKING AND COOKING METHODS:</p> <p>Cooking – preliminary preparations and objectives of cooking; methods of cooking; advantages and disadvantages of different cooking and cooking methods HEALTH</p>

	AND NUTRITION EDUCATION: Introduction, nutrition and prevention of infection, safe drinking water, environmental sanitation. Immunization schedule (6 Hrs)
Unit IV	HOUSING AND INTERIOR DECORATION: Features to be considered in house construction - orientation grouping, roominess, lighting, ventilation, storage facilities, flexibility and safety. Flower arrangement - types of arrangement, selection of vases, flowers and accessories. Home furnishing - Selection, arrangement and care of furniture in different rooms, furnishing material, draperies and curtains, floor coverings and accessories. (6 Hrs)
Unit V	FAMILY RESOURCE MANAGEMENT: Resources - Classification of family resources. Management process - Planning, controlling and evaluation. Time and energy management - Importance of time and energy. Guidelines in planning time schedule. Fatigue - types and ways of overcoming fatigue . (6 Hrs)

Text Book:

1. Srilakshmi, B. (2001). Food Science, New Age International (P) limited Publishers, New Delhi.

Reference Books:

1. Shanthi Ghosh, (1997). Nutrition and Child Care - A Practical Guide. Jaypee Brothers Medical Publishers (P) Ltd., New Delhi.
2. Chinthapalli Vidya, (1996). A Text Book of Nutrition. Discovery Publishing House, New Delhi.
3. Deshpande, R.S. (1985). Build your own home. Poona United Book Corporation
4. Man Home Management for Indian families, Kalyani Publishers, New Delhi.

e- Resources:

1. <https://www.bizmove.com/books/household-management-books.htm>.
2. <https://www.anchor-publishing.com/document/317230>.

Course Outcomes:

On completion of the course the learner will be able

CO 1:	Understand the meaning and importance in Home Management and scope of Home management
CO 2:	understand the food, nutrition, food preservation, health, safety in food, home and environment
CO 3:	Discuss the significance and positive impacts of time, energy and money management
CO 4:	Extrapolates the concepts of food science and food management to individuals and groups and to the institution.
CO 5:	Understand Family resource.

DEPARTMENT OF COMPUTER SCIENCE
SEMESTER V
MULTIMEDIA TECHNOLOGY - I

Course Objective:

1. To give technical skills of audio and video editing to the students so that they may edit and compose sounds and videos as per their need.

1. Adobe Premiere: Introduction

Basics of Adobe Premiere, Creating a new project, video formats, aspect ratio, the Interface, Project window, Monitor, Timeline, supported file formats.

2. Manipulation of files

Importing files, capturing video, trimming clips, working with clips in a sequence, rearranging clips, previewing sequence, opacity.

3. Effects & transitions

Working with effects, applying & adjusting effects, duration & speed, colour correction effects, keying effects, transition effects.

4. Animation

Animating effects & clips, adding navigating and setting keyframes, moving & copying Keyframes.

5. Titles

Creating titles, adding text, adding shapes & images, text styles, creating rolling & crawling text.

6. Exporting

Basics of exporting, Adobe Media Encoder, exporting editable movie & audio files.

Exercises:

1. Matrix effect using time remapping
2. Swinging text effect.
3. Type animation.
4. Cinematic title animation.
5. Text animation.

Course Outcomes:

1. Students learn to record, edit and publish audio for animation.
2. They also learn the techniques of video editing with various tools.
3. Demonstrate advanced editing techniques in the Timeline.
4. Demonstrate using titles and closed captioning in Premiere.
5. Demonstrate organizing content and creating sequences.

DEPARTMENT OF COMPUTER SCIENCE
SEMESTER VI- MULTI DISPLINARY
MULTIMEDIA TECHNOLOGY - II
(DESKTOP PUBLISHING)

Course Objective

1. To provide the participants understanding of the techniques essential to build their career in desktop publishing using suitable hardware and software tools.

Adobe PageMaker:

Components of PageMaker, Toolbox, Palettes, Working with text. **Constructing a Publication:** Creating a new Page, Save publication, Preferences. **Edit Text:** Edit Story, Master Page, Measurement, Ruler & guideline, Page numbers.

Text formatting:

Type Menu , Control Palette , Expert Tracking , Indents And Tab. **Element Menu:** Fill , Fill and Stroke , Create a Frame , Arrange , Wrap text Group Object , Image Control , Change the Shape Of Polygon/ Rectangle.

Utilities Menu: Checking Spelling & Grammar, Change Case, Index Entry.

Corel draw:

Introduction, Toolbars, Components of Corel draw. **Edit Menu:** Introduction to Corel draw, Duplicate, Clone. **View menu:** Full screen Preview, Grid and ruler setup. **Layout Menu:** Insert page, Delete page, Switching page Orientation, Page setup.

Arrange Menu:

Introduction, Transformation, Order, Behind, Group, Shaping. **Effects Menu:** Adjust, Transform, Artistic Media, Contour, Extrude. **Bitmap Menu:** Convert to bitmap, Mode, 3D Effect.

Art Strokes:

Charcoal, Pastels, Pen & ink, Scrap oared, Sketchpad, Watercolor, Blur, Smooth, Color transform, Halftone. **Art Stocks:** Edge Detect, Find edge. **Creative:** Crafts, Glass black Sample glass. **Distort:** Blocks, swirl.

Exercises:

1. Working with text
2. Story Editing
3. Expert Tracking
4. Fill and Stroke
5. Wrap Text and Group Object
6. Switching page orientation
7. Transformation and Adding effects
8. Convert to bitmap, 3D Effect
9. Art Strokes and Dsitort

Course Outcomes:

Students will be able to

2. Effectively & efficiently produce formatted text and graphics.
3. Create Documents and Templates, add text into documents using various methods.
4. Apply different formatting styles to characters and paragraphs.
5. Import graphics, create objects using various tools and add effects to objects.
6. Create a book and export it into PDF.

DEPARTMENT OF BUSINESS ADMINISTRATION
SEMESTER V

Course Objectives:

- To impart knowledge about basic concepts relating to GST.
- To enable the students to gain knowledge about Power and Function of GST.
- To provide knowledge about registration under GST
- To educate the students about the procedure to levy (CGST, SGST).
- To inculcate knowledge on procedure to levy IGST.

UNIT – I	INTRODUCTION TO GOODS AND SERVICES GST – Meaning – Salient Features – Advantages and Disadvantages.	6 Hours
UNIT – II	GST POWERS AND FUNCTIONS Structure of GST (Dual Model) – Central GST – State / Union Territory GST – GST Council – Powers and Functions	6 Hours
UNIT – III	REGISTRATION UNDER GST Registration under GST – Procedure for Registration, Persons liable for Registration, Persons not Liable for Registration, Compulsory Registration, Deemed Registration - Exempted Goods and Services – Rates of GST	6 Hours
UNIT – IV	PROCEDURE TO LEVY CGST, SGST Procedure relating to levy (CGST, SGST) – Scope of Supply, Time of Supply of Goods and Supply Services.	6 Hours
UNIT – V	PROCEDURE TO LEVY GST Procedure relating to IGST – Inter State Supply, Intra – State, Zero Rates Supply, Value of Taxable Supply – Computation of Taxable Value and tax Liability.	6 Hours

Text Books:

1. Dr. Ghousia Khatoon, prof.Naveen Kumar.C.M., & Dr. Venkatesh.S.N., Goods, Service Tax, Himalaya Publishing House, Sarangapani Street, T.Nagar, Chennai

2. Reddy. T.S and Dr.Hari Prasad Reddy. Y., Business Taxation (Indirect Taxes), Margham Publication, No.24 Rameswaram Road, T.Nagar, Chennai – 17.

Reference Books:

1. Richard Paul, M.Mose Antony Rajendran, Indirect Tax and GST.LAP Lambert Academic publisher.

Web-Resources:

1. [https:// castudyweb.com](https://castudyweb.com)
2. <https://taxmanagementindico.com>
3. <https://gst.caknowledge.com>

Course Outcomes:

On Completion of the Course, Students Should be able to

CO 1:	To understand the basic concepts of GST
CO 2:	To gain knowledge about Power and Function of GST.
CO 3:	To acquire knowledge about registration under GST
CO 4:	To learn about the procedure to levy on (CGST, SGST).
CO 5:	To understand the procedure to levy on IGST.

DEPARTMENT OF BUSINESS ADMINISTRATION
SEMESTER VI- MULTI DISPLINARY

Semester – VI	e- BUSINESS	Course Code :
Instruction Hours : 30	Credits: 2	Exam Hours : 3
Internal Marks – 25	External Marks -75	Total Marks : 100

Course Objectives:

1. To make the students to understand about the concepts of e- business.
2. To educate the students to learn e –CRM software.
3. To give in-depth knowledge of documentation through MS word.
4. To gain the knowledge about an electronic Market.
5. To inculcate the knowledge on Internet.

UNIT – I	<p>Introduction: Basic Internet fundamentals: Overview of the Internet, Browsing the world wide web, Electronic Mail, Basics of using FTP, Newsgroups, Searching the web to gain Market Intelligence, Internet Technology.</p>	6 Hrs
UNIT – II	<p>e-CRM Software: E-CRM - Meaning - Difference between CRM & e CRM - Features of e –CRM – e-CRM Software.</p>	6 Hrs
UNIT – III	<p>MS-office overview: MS-office overview - Data Entry - Graphs - Aggregate Functions - Formulas &Function Different No System & Conversion.</p>	6 Hrs
UNIT – IV	<p>Electronic Market: An Electronic Market place of buyers & Sellers - Collaborating on a distribution chain -online Catalog.</p>	6 Hrs
UNIT – V	<p>Internet: Lab Practical CIA - 10 Marks (Overview of the Internet, Browsing</p>	6 Hrs

	the world wide web, Electronic Mail).	
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Text Books:

1. David Edmundson – Bird, Digital Business and e- Commerce management, Pearson Publishers, 7th Edition 2019.
2. Davi Chaffey, E- Business and E- Commerce Management, Prentice Hall Publishers, 5th Edition 2011.

Reference Books:

1. Syamales Maiti & Sweety Sadhukhan, E- Commerce and E –Business Communication Mc Graw Hill Publishers, 1st Edition 2019.
2. Harvey M.Deitel, E- Business and E-Commerce for Managers, Prentice Hall Publishers, 1st Edition 2001.

Web – Resources:

1. <https://www.freebookcenter.net>>.
2. <https://www.dl.acm.org>.>doi>book.

Course Outcomes:

On completion of the course the learner will be able

CO 1:	To understand the various aspects of e-business.
CO 2:	To outline the evolution of e-CRM software..
CO 3:	To assess the knowledge about MS Word.
CO 4:	To gain the knowledge on Electronic market.
CO 5:	To create an understanding of internet.

DEPARTMENT OF PHYSICS

SEMESTER V

Semester V / Value Added	EVERYDAY PHYSICS	Course Code:-----
Instruction Hours: 2	Credits: 2	Exam Hours: 3
Internal Marks -25	External Marks-75	Total Marks: 100

Course Objectives:

- To impart basic knowledge about everyday physics in home and office with their working principle
- To acquire knowledge on basic Physics
- Give basic knowledge of science behind materials & amp; Installation & Maintenance of Solar Panel.
- Understand and improve the application of Physics behind Home appliances
- To make the students for Mini project work

Unit I	Physics behind Home appliances Light bulb – Fan – Hair drier –microwave ovens – Vacuum cleaners – water heater – Dishwasher
Unit II	Working Principles: Basic principles - Rape recorder – Taps – Lifts –Rockets – fax machines– Cellular phones - mixer grinder
Unit III	Demonstration Making a switch board with multiple points – wiring – one lamp controlled by one switch/Two switches – fixing a fuse – soldering – P.C.B Preparation

Unit IV	Installation & Maintenance of Solar Panel Solar energy and its applications, Designing a Solar Photovoltaic System, Installation of Solar Panel
Unit V	Mini project work One way and two ways switch board making, Simple solar Light making, and PCB designing and electric fuse connection

Text Books:

1. The Learner's series – Everyday science – Published by INFINITY BOOKS, New Delhi
2. The Hindu speaks on Science, Vol I & II, KasturiRanga Publishers, Chennai

Books for Reference

1. Fundamentals of Physics by D. Halliday, R.Rensick and J. Walker, 6th edition, Wiley, NY (2001).
2. The Feymann Lectures on Physics Vols I, II, III by R.P. Feynmann, R.B. Leighton & M. Sands, Narosa, NewDelhi (1998).
3. Handbook on Installation & maintenance of Solar Panel

Course Outcomes:

On completion of the course the learner will be able

CO 1:	To educate the student with the useful applications of Physics behind Home appliances.
CO2:	To enable the student to recognize those applications
CO 2:	To enable the student to understand the physics behind the bio electric signal recording, biotelemetry and their safety measures
CO 3:	To calculate and apply measures of location grouped and ungrouped data.

DEPARTMENT OF PHYSICS
SEMESTER VI- MULTI DISPLINARY

Semester- VI / Value Added (Multidisciplinary)	Renewable Energy and Application of Solar	Course Code: -----
Instruction Hours: 2	Credits: 2	Exam Hours: 3
Internal Marks -25	External Marks-75	Total Marks: 100

Course Objectives:

- To make the students to understand the present day crisis of need for conserving energy and alternatives are provided.
- Know percentages and have understanding for magnitudes of energy and resources used
- Understand the special engineering challenges of using each of these sources of energy efficiently and environmentally effectively.
- Understand the economics behind the costs of the uses and applications of each of these forms of energy
- Understand the energy conversion systems for nuclear power plants, the advantages/disadvantages (including overall environmental effects) of each type of present plants.

Unit I	<p>Energy Resources and their Utilization: Conservation and forms of Energy – Electric energy from Conventional Sources –Thermal Plants (Coal Fueled) Energy Reserves of India – Oil – Natural Gas –National Grid for Gas Distribution – Gas Conservation. (Content- 4 Hrs, Assessment -2 Hrs) (6 Hrs)</p>
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Unit II	<p>Power Potential: Hydroelectric Power Potential – India’s Power Scene – Gas- based Generating Plants – Nuclear Power Programme – Renewable energy Sources – Energy Parameters - Energy efficiency and Conservation - New Technologies – Hydrogen Energy Systems – Fuel Cells – Biofuels. (Content- 4 Hrs, Assessment -2 Hrs) (6 Hrs)</p>
Unit III	<p>Environmental Awareness: Global Environmental Awareness – Kyoto Protcol- Impact of Renewable of Renewable energy generation on environment – Solar energy – Wind energy – Biomass energy – Geothermal energy- Ocean Thermal Energy Conversion (OTEC). (Content- 4 Hrs, Assessment -2 Hrs) (6 Hrs)</p>
Unit IV	<p>Solar Thermal Energy Conversation Systems: Solar Water Heating – Solar Distillation – Liquid bath Wax Meliter –Solar Wax Melter – Heating of Swimming Pool by Solar energy. (Content- 4 Hrs, Assessment -2 Hrs) (6 Hrs)</p>
Unit V	<p>Application of Solar: Solar Green Houses – Light intensity – Temperature – Humidity – Carbon Dioxide – Solar Furnace and Applications- Major components of a solar furnace – Solar Power Plant using A Satellite – Plastic Solar Cells with Nanotechnology – Solar Photovoltaic in India.(Content- 4 Hrs, Assessment -2 Hrs) (6 Hrs)</p>

Text Book:

- 1.D.P. Kothari, K.C. Singal& Rakesh Ranjan, Renewable energy sources and emerging Technologies, Prentice Hall of India Pvt. Ltd., New Delhi (2008).

Reference Books:

1. 1.S.A. AbbasiandNasemaAbbasi, *Renewable Energy sources and their environmental impact*, PHI Learning Pvt. Ltd., New Delhi (2008).

E- Resources:

1. <http://www.lanl.gov/external>
2. <http://fnalpubs.fnal.gov>

Course Outcomes:

On completion of the course the learner will be able

CO 1:	Understand the sources of energy and their contributions to the energy and power needs of the nation and the world.
CO 2:	Be able to effectively use Rankine Cycle analysis
CO 3:	Understand the differences between large quantities of fuel and waste
CO 4:	Fully appreciate the aspect of capital cost amortization and allocation to unit of energy produced.
CO 5:	Be able to analyze comparisons of capital cost allocation, operating cost, including fuel costs. Special attention is given to the renewables for which there is zero or negligible fuel cost

DEPARTMENT OF TAMIL

SEMESTER V

சிந்தனையியல்

(Value added course -interdisciplinary for III BA Tamil)

Semester- v	சிந்தனையியல்	Course Code -
Instruction Hours -2	Credits -2	Exam Hours -3
Internal Marks -25	External Marks -75	Total Marks -100

பாட நோக்கம்:

1. மேலை மற்றும் தமிழ்நாட்டு சிந்தனையாளர்களின் சிந்தனைகளை கற்பித்தல்.
2. காந்தியடிகளின் சிந்தனைகளை அறியச் செய்தல்.
3. காரல் மார்க்சின் சிந்தனைகளை பயிற்றுவித்தல்.
4. அம்பேத்காரின் சிந்தனைகளை உணரச் செய்தல்.
5. பெரியார் மற்றும் அண்ணாவின் சிந்தனைகளை செயல்பாடுகளை மேற்கொள்ள ஊக்குவித்தல்.

அலகு 1

சிந்தனையில் விளக்கம்- மேலைநாட்டு சிந்தனையாளர்கள் - சாக்ரடீஸ்-,அரிஸ்டாட்டில்-பிளாட்டோ தமிழில் சிந்தனையில் வளர்ந்த வரலாறு- திருவள்ளூர் சிந்தனைகள் -சித்தர்களின் சமூக சிந்தனைகள்- வள்ளலார் சிந்தனைகள். (6 மணிகள்)

அலகு 2

காந்தியடிகள் சிந்தனைகள்- அகிம்சை- சமயக் கோட்பாடு- பெண்கள் சமுதாய ஒற்றுமை- அரசியல் பொருளாதார விடுதலை. (6 மணிகள்)

அலகு 3

காரல்மார்க்ஸ் சிந்தனைகள்- மார்க்சிய கோட்பாடுகள் அவற்றின் வழி சமூக பொருளாதார மாற்றங்கள். (6 மணிகள்)

அலகு 4

அம்பேத்கரின் சிந்தனைகள் அம்பேத்காரின் அனுபவங்களும் இவற்றின் வழி உருவான சிந்தனைகளும் மதம் ஜாதி பற்றிய சிந்தனைகள் அரசியல் அமைப்புச் சட்டம் இயற்றல் இவரின் பங்கு. (6 மணிகள்)

அலகு 5

பெரியார் மற்றும் அண்ணா சிந்தனைகள்- மதம், கடவுள், மொழி, சாதி, பெண்ணடிமை, சமுதாய ஏற்றத்தாழ்வு பற்றிய சிந்தனைகளும் செயல்பாடுகளும் (6 மணிகள்)

பாடநூல்

சிந்தனையில் தமிழ்த்துறை குந்தவைவை நாச்சியார் கல்லூரி ,தஞ்சாவூர் இயல் பதிப்பகம் 2017 .

பார்வை நூல்

1. காரல்மார்க்ஸ் வேசாமிநாத சர்மா.
2. வள்ளலார் கண்ட ஒருமைப்பாடு ம.பொ.சி.
3. பெரியாரின் சிந்தனைகள் மூன்று தொகுதிகள்வே. ஆனைமுத்து.
4. அறிஞர் அண்ணாவின் வாழ்வும் வாக்கும்சி.எம் ஏ பரிமளம்.
- 5 சத்திய சோதனைகாந்தியடிகள்,

இணைய முகவரி

<https://tamil.wikipedia.org>

கற்றல் விளைவுகள்

- 1 சிந்தனையாளர்களின் சிந்தனைகளை வாழ்வில் மேற்கொள்வர்.
2. காந்தியடிகளின்சிந்தனைகளை பின்பற்றி வாழ்வர்..
3. காரல்மார்க்ஸ் சிந்தனைகளை அறிந்து அதன்படிநடப்பர்.
4. அம்பேத்காரின் சிந்தனைகளை சட்டங்களைஅறிவர்.
- 5 பெரியார் மற்றும் அண்ணாவின் சிந்தனைகளை மேற்கொண்டு பேச்சாளர் கவிஞர் எழுத்தாளராக ஆவர்..

DEPARTMENT OF TAMIL
SEMESTER VI- MULTI DISPLINARY

ஊடகவியல் (Value added course multidisciplinary For Other Major)

Semester -VI	ஊடகவியல்	Course Code -
Instruction Hours -2	Credits -2	Exam Hours -3
Internal Marks -25	External Marks -75	Total Marks -100

பாட நோக்கம்:

1. ஊடகங்களின் பரிணாம வளர்ச்சியை ஊடகங்களின் தேவையை உணர்த்துதல்
- 2.. ஊடகங்களை பயன்படுத்த பயன் கொள்ள பயிற்றுவித்தல்
3. ஊடகங்களின் பணி வாய்ப்பு பெற மாணவர்களை தயார்படுத்தல்
- 4 தகவல் தொழில்நுட்பத்தின் பரிமாணங்களை அறிதல்
5. உலகளாவிய செய்திகளை உடனுக்குடன் அறிந்து இதழ்களில் பணிபுரிய ஊக்குவித்தல்

அலகு 1 வானொலி

வானொலி: செய்தி எழுதுதல்- நாடகம் உரையாடல் -
கலந்துரையாடல்- நேர்காணல் -அறிவிப்புகள்- நிகழ்ச்சி தொகுப்புரை -

நேர்முக வர்ணனை- விளம்பரம்- விளையாட்டுச் செய்திகள்-
மருத்துவக்குறிப்பு. (6 மணிகள்)

அலகு 2 தொலைக்காட்சி

தொலைக்காட்சி: செய்தி எழுதுதல்- நாடகம் உரையாடல்-
கலந்துரையாடல் நேர்காணல்- அறிவிப்புகள் ,நிகழ்ச்சி தொகுப்புரை -
நேர்முக வர்ணனை- விளம்பரம்-விளையாட்டுச் செய்திகள்
மருத்துவக்குறிப்பு. (6 மணிகள்)

அலகு 3 திரைப்படம்

திரைப்படம்: காட்சி அமைப்பிற்கு ஏற்ப உரையாடல்- தலைப்புகள்:
அறிவுரை நட்பு, காதல், மகிழ்ச்சி, அழகை, வீரம், இரக்கம்,
வெற்றிக்களிப்பு விளம்பரம்.

(6 மணிகள்)

அலகு 4 இதழ்களின் அமைப்பும் செய்தியாளர் செய்தியும்

இதழ்கள் தொடங்குவதற்குரிய வழிமுறை- செய்தித்தாள் நிர்வாக
அமைப்பு- செய்தியாளர் வகைகள்- பண்புகள்- பணிகள்- கருவிகள்-
அடிப்படை விதிகள்- செய்தி விளக்கம்- செய்தியாவன- செய்தி
வகைகள்- செய்தி மூலங்கள் -உள்ளடக்கங்கள்- செய்தித் திரட்டுதல்

(6 மணிகள்)

அலகு 5 செய்தி நிறுவனங்களும் பேட்டியும்

முதல் செய்தி நிறுவனம் உலகச் செய்தி நிறுவனங்கள்- பேட்டி விளக்கம்- பேட்டியின் வகைகள்- பேட்டி நடத்துதல்- பேட்டியாளர் செய்ய வேண்டியவை -செய்யக்கூடாதவை- குற்றச் செய்திகள் பல்வேறு வகையான படங்களும் இதழ்களும் (6 மணிகள்)

பாடநூல்கள்:

1 மக்கள் தகவல் தொடர்பியல் ,கி.இராஜா ,பாவை பப்ளிகேஷன்ஸ் ,142 ஜானிஜான்கான் சாலை ,ராயப்பேட்டை, சென்னை.

3. இதழியல் கலை. மா.பா.குருசாமி பதிப்பகம் குருதேன் மொழி தாய் அன்பகம் ,6 வது தெரு, திண்டுக்கல்.

பார்வை நூல்:

1. முனைவர் வீ. மோகன் சாந்தா, மக்கள் தொடர்பியல் புதிய பரிமாணங்கள், மீடியா பதிப்பகம், வீரமுத்துகார்டன் ,ஆனையூர், மதுரை÷ 17

இணைய முகவரி

<https://tamil.wikipedia.org>

கற்றலின் விளைவுகள்

1. வானொலியில் தொகுப்பாளராக பணியில் சேர வாய்ப்பு பெறுவர்.
- 2 தொலைக்காட்சியில் பணிபுரியும் திறனைப்பெறுவர்.

3. திரைப்படத்துறையில் கதை எழுதுதல் தொகுப்புரை நடத்தல் போன்ற பணி வாய்ப்பு பெறுவர்.
4. ஊடகத்துறையில் செய்தி சேகரிப்பாளர் எழுத்தாளராக ஆவர்.
- 5 செய்தி நிறுவனங்களில் செய்திவாசிப்பாளர் வர்ணனையாளர் தொகுப்பாளர் போன்ற பணி வாய்ப்பு பெற்று வாழ்வில் உயர்வர்.

DEPARTMENT OF ENGLISH
SEMESTER V

Year	Semester	Course Code	Course Title	Instruction Hours	Credits	Exam Hours	Total Marks
III	V		English for Competitive Examinations	03	02	03	100

Course Objectives:

- To enable the learners to be proficient in using English Language.
- To enhance the capability of acquiring jobs in different fields.
- To prepare for various Competitive Exams.
- This course provides the platform for the students to understand the nuances of various Competitive Examinations.
- To provide systematic practice in the usage of English Grammar

Unit I	Synonyms-50 Antonyms-50	6 hours
Unit II	Errors and how to avoid them Phrasal Verbs	6 hours
Unit III	Reconstructing Passages Vocabulary – Words often confused and misused	6 hours
Unit IV	Sentence Completion Precis Writing	6 hours
Unit V	Essay Writing Dialogues Dialogue Writing	6 hours

Reference Books:

1. English for Competitive Examinations – R.R. Bhatnagar and

Rajul Bhatnagava, Macmillan Publishers, New Delhi, 2011

2. Spoken English – V. Sasikumar and P.V.Dhamaja, Tata McGraw-Hill Publishing Company

Limited New Delhi, 1995

e- Resources:

<https://books-library.net/files/books-library.online-12261331Hk2E2.pdf>

Course Outcomes:

On completion of the course, the learner will be able to

CO 1: good at using the English Language.

CO 2: carryout interaction through conversation.

CO 3: face the Competitive Exams with confidence.

CO 4: use the language skills (LSRW) proficiently.

CO 5: acquire the needed employability skills.

DEPARTMENT OF ENGLISH
SEMESTER VI- MULTI DISPLINARY
ENGLISH FOR COMPETENCE

Course Objectives:

- To enable the students to prepare for competitive Examinations.
- To enhance the comprehensive ability of the learners.
- To concentrate on the essential language skills.
- To make the learners familiar with great writers and their master pieces.
- To equip the students with the nuances of the English language which includes proficiency in grammar.

Unit I

6 hrs

Vocabulary-Prefixes, Suffixes

Error Correction

Synonyms and Antonyms

Unit II

6 hrs

Idioms and Phrases

Comprehension

Unit III

6 hrs

Note-Making and Summarizing

Precis writing

Unit IV

6 hrs

Paragraph Writing

Essay Writing

Unit V

6 hrs

Group Discussions and Interviews

Text Book:

Ayothi.V. & Vedavalli.R, English for Competitive Examinations, New Century Book House Private Limited, Chennai. 2017

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Reference Book:

Aggarwal, R.S. and Aggarwal Vikas, *Quick Learning Objective General English*, S.Chand Publishing, 2003.

Course Outcomes:

On completion of the course the learner will be able

CO 1: To appear for various competitive examinations with confidence.

CO 2: To enhance their comprehensive ability.

CO 3: To get a glimpse of great writers and their works.

CO 4: To utilize time management techniques to create a study schedule for effective learning process.

CO 5: To use English grammar efficiently.

DEPARTMENT OF GEOLOGY

SEMESTER V

FIELD GEOLOGY

Internal Mark: 25

External Mark: 75

Exam Hours: 3

Semester: V

No.of Hours/Week: 30

Credit: 4

Course objectives:

- The paper aims to understand the field essentials like understating a map, the basic equipments, traversing and field markings.
- To paper on the for mapping on aerial photographs.
- To learning the paper compass uses in clinometers and bearing and reading directions.
- To learning the measurement of maps areas.
- To know the collection of samples and samplings.

UNIT I:

Previous Literature and Maps, Destruction of Rocks, Physiography, Topographic Expressions and Relief, Inliers and Outliers, Soils and Vegetation, Requirements for the Field, Some Field Suggestions and Precautions.

UNIT II:

Basic equipment, Additional requirements, Supplementary supplies, Special requirements, Optional, For mapping on aerial Photographs. Geological Hammers, Pocket and Hand Lenses, Hydrochloric Acid, Streak Plate, Pocket Knife, Measuring Tapes and Scales, Haversack or Rucksack, Mohs scale of Hardness, Cold Chisel, Protractors, Pocket Calculator, Cameras, Care and Upkeep of Instruments.

UNIT III:

The Compass and Its Uses, Dip of the Compass Needle, Magnetic Declination, Clinometer, Bearing and Reading Directions, Measuring Attitudes, Handling of the Compass, Finding Direction without a Compass.

UNIT IV:

Base Maps, Scale of Maps, Direction of Relief, Latitudes and Longitudes, Map Grids, Measurement of the Map Areas, Mounding and Folding of Field Maps, Marking on Maps.

UNIT V:

The Notebook, Notes, Checklist for Notes, Writing Materials, Field Sketches and Drawings, Field Photographs. Trimming of Hand Specimens, Fossil Specimens, Mineral Specimens, Samples and Samplings, Numbering and Labelling of Specimens, Packing and Storage.

Text Books:

1. Davis, G.R. 1984, Structural Geology of Rocks and Region, John Wiley 24
2. H.W. Fairborn, 1949, Structural petrology of deformed rocks, John Wiley and sons
3. John Suppe 1985, Principles of Structural Geology, prentice Hall publications.

Reference Books:

1. Price N.J., and Cosgrove, J.W. 1990. Analysis of Geological structures, Cambridge Univ. Press.
2. Ramsay, J.G. and Huber, M.I., 1987, Modern structural Geology Vol. I and II Academic press.
3. Robert R.Compton, 1962, Manual of field geology, John Wiley and sons.

Course Outcomes:

On completion of the course students should be able to

CO1: Students would be able to understanding the field geology origin of important rocks, minerals, soils and vegetation inliers and outlier topographically destruction.

CO2: Students understand the field basic equipment handling and requirements.

CO3: Understand the compass its uses rock and mineral direction.

CO4: Understand the student using base map latitudes and longitudes direction.

CO5: Gain a better understand the field writing materials, field sketches and drawings

DEPARTMENT OF GEOLOGY
SEMESTER VI
SPATIAL MODELLING - MULTI DISPLINARY

Internal : 25

External : 75

Exam Hours: 3

Semester: VI

No.of Hours/Week: 30

Credit : 2

Course Objective:

- Exposes the students to decision making and concepts of spatial decision support system

UNIT I:

Development – Definition – Classification and Verification of spatial models – Spatial System Theory – Temporal modelling and dynamic description of geobjects.

UNIT II:

Data models – Static models – Dynamic models – Cartographic models – Spatio – Temporal models – Network models – Models based on purpose – methodology and logic.

UNIT III:

Basic statistic and its GIS expression – Spatial dependency – Spatial interpolation (IDW, Kringing and Others) – 3D models of relief.

UNIT IV:

Linking numeric and geographic patterns – Normalizing maps – Viewing scatter plots – clustering mapped data – Investigating map correlation.

UNIT V:

Dynamic map pedigree – Toward a human GIS – GIS softwar's changing roles – Evolving the GIS mindset – Multimedia mapping – Map display.

TEXT BOOKS:

Carlo Gaetan & Xavier Guyon (auth), Spatial Statistics and Modelling 2010

Reference Books:

Longley P.A, M.F. Goodchild, D.J. Maguire and D.W. Rhind 2005

John Wiley, Chichester Geographic Information System and Science. Second edition 2005

Web Resources:

<https://www.pdfdrive.com/spatial-modelling-in-gis-and-r-for-earth-and-environmental-science-d183969339.html>

Course Outcomes:

On completion of the course students should be able to be

C01: Understand the concept architecture and frame work of SM and decision variables

C02: Apply the SDSS in specified areas

C03: Gain knowledge on types of decision modelling

C04: Learn about various ranking, rating and comparison methods involved in decision modelling.