1.1.1. TEACHING SYNOPSIS

Andhra Christian College, Guntur

Proforma for Teaching PLAN

Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr. M. KUSUMA KUMARI.
Course / Group	B.Sc
Paper	III B.Sc
Name of the Topic	Environmental Chemistry.
Hours Required	6 hrs.
Learning Objectives	Knowledge, observations, Skill.
Previous Knowledge to be reminded	What is pollution.
Topic Synopsis	Presence of undesired material in the water o Air is called pollution; which causes harmfull effect to Humans, animals or any living organisms. Sources of water pollutants :- inorganic, organic, Sedimen domestic waste, Radioactive pollutants, Thermal pollutant - they effect - we can not drink water, effects aquatic li algae can not grow, pH of water changes, decreases O - leads to diseases like Cholera, typhoid, diarrhoea, Jau - Polluted water reduces Agricultural productivity. Methods discussed to control water pollution. Air pollution :- Pollutants CO_2, CO, SO_2, SO_3 Oxides of Nitrog - Respiratory disorders, Acid rain, effects Lungs, Heart, HI Remedial methods discussed. Greenhouse effect :- G.H. gases - CO_2, N_2O, CH_4, & Chl F-bro Carbons - Consequences - effects Agriculture decrease i ground water, temp may be increased. Methods to con Acid Rain :- Rain water mixed with H_2SO_4, HNO_3 Compounds to e & acidi
Examples / Illustrations	Natural.
Additional Inputs	Assign-1.
Teaching Aids Used	B.B., Natural illustrations
References Cited	Text-book - A.K. Dey
Student Activity Planned after the teaching	Assign-1.
Any other activity	Collecting the examples of pollu

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Y. Durga Prasad
Course / Group	III BSc, Sem – V
Paper	Paper – IC Industrial Chemistry – 2
Name of the Topic	Industrial Waste Management – 1
Hours Required	06 hours.
Learning Objectives	To learn water treatment methods.
Previous Knowledge to be reminded	About water purification plant in Guntur city

Topic Synopsis:

Waste water treatment: causes of pollution of water – domestic, industrial and agricultural activities. Industrial waste water from food processing units, tanneries, paper and sugar industries, electroplating & pharmaceutical industries.

Waste water treatment methods:

Primary treatment: screening, sedimentation,

Secondary treatment. Digestion, aeration, biological methods – types of bacteria helpful to destroy organic matter; Chemical methods, removal of heavy metals.

Tertiary treatment: Clarification and disinfection.

Industrial waste water treatment.

Characteristics of solid wastes. Methods of solid waste treatment and disposal.

Examples / Illustrations	You Tube Clippings of water treatment plants.
Additional Inputs	Damage of land due to solid wastes.
Teaching Aids Used	You tube Clippings.
References Cited	Environmental Science by A K Dey.
Student Activity Planned after the teaching	Planned to take students to municipal drinking water plant.
Any other activity	Seminars by students.

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Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. KUSUMA KUMARI
Course / Group	B.Sc
Paper	Sem I Paper I.
Name of the Topic	Theories of Bonding in Metals.
Hours Required	4 Hours.
Learning Objectives	To know about conductors, Semi conductors & Insulators
Previous Knowledge to be reminded	Conductivity, Semi Conductors.
Topic Synopsis:-	1) If 'n' number of atomic orbitals combine together to form 'n' no. of molecular orbitals. They form closely spaced energy levels called Bands. 2) Substances which conduct electricity are conductors. 3) Substances which do not conduct electricity Insulators. 4) Semi Conductors — a) n-type :- Semi conductors which exhibits conductivity due to the flow of excess — ve electrons eg:- An atom of As, Sb or Bi (V group) introduced in the lattice of Si (or) Ge (IV group). The 5th electron free to move in the lattice which enhances conductivity. (b) P-type :- exhibits conductivity due to +ve holes. P-type when an atom of 3rd group introduced in lattice of IV group structure, it is surrounded by seven electrons instead of 8 — as a result of the free movement of electrons which shows conductivity. Free electron theory :- Metals as group of +ve ions embedded in Sea of mobile electrons. Valency bond Theory :- Li — Li ↔ Li Li V.B.T does not explain Metallic Character in Solutions.
Examples / Illustrations	Conductivity of Graphite, wood.
Additional Inputs	Conductance.
Teaching Aids Used	B.B. Natural examples.
References Cited	R.P. Agarwal / Qualified Text Book
Student Activity Planned after the teaching	Assignment.
Any other activity	Exam.

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Y. Durga Prasad
Course / Group	III B.Sc., Sem-V
Paper	Paper-IC, Industrial chemistry-2
Name of the Topic	Analysis of water -1
Hours Required	05
Learning Objectives	Various water quality parameters and their determination methods.
Previous Knowledge to be reminded	About water pollution in previous classes.

Topic Synopsis:

Hardness of water: Definition of hard water, temporary and permanent hardness, - causes. Methods of removal of hardness of water. Determination of total hardness of water by EDTA method.

Dissolved oxygen (DO): Normal value of DO in good quality water, decrease in DO value due to pollution and its bad effects. Determination of DO value by Winkler's method.

BOD: Normal value of BOD in unpolluted water. Increase in BOD due to various organic pollutants. Determination of BOD.

COD: Normal limits. Increase in COD value due to various organic pollutants from plants and animals, industrial and domestic waste water. Determination of COD by acidified standard $K_2Cr_2O_7$ ~~oxid~~ in presence of metal ion catalysts.

Examples / Illustrations	Collection of news paper clippings.
Additional Inputs	study material, practical determinati
Teaching Aids Used	Practicals to determin DO, COD.
References Cited	Text books and practical manuals.
Student Activity Planned after the teaching	To observe causes of water pollution in the surrounding areas.
Any other activity	Slip test and assignments.

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Y. Durga Prasad
Course / Group	III BSc, Sem – V
Paper	Paper-IC, Industrial chemistry-2
Name of the Topic	Organic Polymers – 2
Hours Required	06 hrs.
Learning Objectives	To learn mechanisms of different types of polymerisation
Previous Knowledge to be reminded	Types of organic reaction mechanisms.

Topic Synopsis:

1) Addition polymerisation: Definition, examples of addition polymers.

a) Free radical addition polymerisation: Definition, Explanation of various steps involved, free radical initiatory, generation of free radicals, chain propagation steps, chain termination steps.

b) cationic addition polymerisation: Definition, role of Lewis acids like BF_3, Chain propagation and termination steps. Polymers manufactured by this mechanism.

c) Anionic addition polymerisation: Definition role of strong bases like KNH_2, RONa in the generation of Carbanion, chain propagation mechanism, living Polymer.

2) Condensation polymerisation: Def, examples – Nylon 6,6, Polyester, polypeptides etc. Explation of mechanism.

3) Coordination polymerisation: Zeigler-Natta catalysts, Explanation of mono and bimetallic mechanisms. Significance of Zeigler-Natta catalysts.

Examples / Illustrations	Shown some samples of polymers.
Additional Inputs	Study material, You Tube clippings
Teaching Aids Used	Internet.
References Cited	Text book of polymer science.
Student Activity Planned after the teaching	Seminars and assignments.
Any other activity	Slip test.

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Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr. M. KUSUMA KUMARI
Course / Group	I B.Sc
Paper	Paper I
Name of the Topic	Dilute Solutions – colligative prop
Hours Required	Six hours.
Learning Objectives	Know about Colligative prop
Previous Knowledge to be reminded	Dilute & conc solutions, effect of temp, Pre
Topic Synopsis:	The properties of dilute solutions which depend upon the no. of solute particals present in the solution are called colligative properties. They are 4 properties. (1) Relative lowering of V.P of solution (ΔP) $\frac{P_0 - P_s}{P_0} = \frac{W_s}{M_s} \times \frac{M_0}{W_0}$ Raoults Law:- The relative lowering of V.P of a dil solutions is equal to the mole fraction of the solute in the solution. $\frac{P_0 - P_s}{P_0} = \frac{n_s}{n_s + n_0}$ Mol. wt of solute $M_s = \frac{P_s}{P_0 - P_s} \times \frac{W_s \times M_0}{W_0}$. (2) Elevation in B.P of solution (ΔT_b) :- Increase in B.P of non volatile solute from that of B.P of pure solvent is Elevation $\Delta T_b \propto$ molarity of the solution $M_s = 1000 K_b \times \frac{W_s}{W_0 \times \Delta T_b}$. (3) Depression in Freezing point of solution ΔT_f :- Decrease in a non volatile solute solution from that of the F.P of pure solvent in F.P. (eg) F.P of salt water is less than F.P of pure water $\Delta T_f = 1000 K_f \times \frac{W_s}{M_s} \times \frac{1}{W_0}$. (4) Osmosis :- when solvent and solutions are separated by a S membrane flow of solvent molecules into solution is called O Osmotic pressure $\pi = CRT$, $\pi = \frac{W_s}{M_s} \times \frac{RT}{V}$, $M_s = \frac{W_s}{\pi} \times$
Examples / Illustrations	Egg in salt water & Pure water
Additional Inputs	Material
Teaching Aids Used	B.Bs, Natural examples.
References Cited	O.P. Agarwal.
Student Activity Planned after the teaching	Assignments.
Any other activity	Exam.

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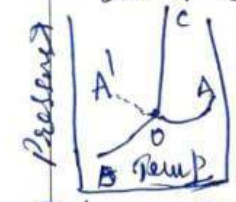
Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. KUSUMA KUMARI
Course / Group	II B.Sc.
Paper	Paper IV Sem IV
Name of the Topic	Phase rule.
Hours Required	6 hrs.
Learning Objectives	Know the effect of Physical Conditions on Equilibria.
Previous Knowledge to be reminded	Law of Masses.
Topic Synopsis:-	For heterogeneous systems in equilibrium, Phase rule is $F = C - P + 2$ where F = No. of degrees of freedom, C - No. of components, P = No. of phases.

(1) Water system:- One component System (H_2O), Phases - (3) Liquid, Vapour, and Ice., Liquid $\rightleftharpoons$ Vapour, Solid $\rightleftharpoons$ Vapour, Solid $\rightleftharpoons$ liquid.

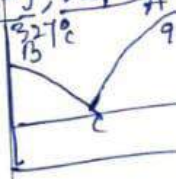
Curves :- OA, OB, OC & OA', $F = C - P + 2 = 1 - 2 + 2 = 1$

Areas :- Three AOB, BOC, AOC; $F = 1 - 1 + 2 = 2$

Triple point - 0.0075°c & 4.58 mm Pressure. $F = 1 - 3 + 2 = 0$



(2) Lead - Ag System :- Both metals are Completely miscible in liquid state i.e Eutectic - Solid lead, Solid Silver, Soln Pb, Ag, Vapour. Two Component system, Two curves intersecting At 'c', (3) Desilverisation of Lead.



(B) Salt, water System:-

(4) Freezing Mixtures :- NaCl and Ice (20.1%) - 16°c. NH_4NO_3 & Ice (43.0%) - 18°c, NaCl.$2H_2O$ & Ice (23.0%) - 22°c.

Examples / Illustrations	Salt on roads at Cool Countries
Additional Inputs	Notes, material.
Teaching Aids Used	Black Board.
References Cited	Text Book.
Student Activity Planned after the teaching	Draw various Phase diagrams
Any other activity	Seminars.

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Y. Durga Prasad
Course / Group	III BSc, Sem-V
Paper	Paper-IC, Industrial chemistry-2
Name of the Topic	Organic Polymers - 1
Hours Required	8
Learning Objectives	To know important definitions, classification of organic polymers.
Previous Knowledge to be reminded	To remind student about polymers in our daily life

Topic Synopsis:

Basic definitions: Polymers, degree of polymerisation.

Classification: 1) Natural and synthetic polymers: def, explanation with examples.

2) Organic and inorganic polymers: Definitions, explanation with examples.

3) Thermoplastic and thermosetting polymers: Def, properties and examples.

4) classification based on use: Plastics, elastomers fibres and resins: Definitions, properties, uses.

5) Classification based on chemical structure: Linear, branched and cross-linked polymers: Def, properties and examples.

Examples / Illustrations	Samples of some polymers shown
Additional Inputs	Sent You Tube clippings on classification of polymers.
Teaching Aids Used	You Tube clippings on polymers.
References Cited	Text Book: Polymer Science by V.R. Gowariker et al.
Student Activity Planned after the teaching	Students are assigned with a work to collect articles made of polymers.
Any other activity	Slip test conducted.

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Y Durga Prasad
Course / Group	III BSc., Sem-V
Paper	Paper-IC, Industrial Chemistry-2
Name of the Topic	Analysis of water-2
Hours Required	05
Learning Objectives	To learn about determination of water quality parameters
Previous Knowledge to be reminded	Various water pollutants

Topic Synopsis:

Total Dissolved salts(TDS): Permissible values of TDS in drinking water, disadvantages of high TDS value, determination by conductivity method.

Turbidity: Cause of turbidity, measurement and removal of turbidity by the addition of electrolytes like alum.

Alkalinity: Determination of alkalinity of a water sample.

Chloride: Permissible limits of Cl^- in the drinking water, causes of high Cl^- concentrations in water and effects. Determination of Cl^- in water by Mohr's method.

Examples / Illustrations	Apparatus to determine TDS in water
Additional Inputs	Disadvantages of using hard water in industries.
Teaching Aids Used	You Tube clippings for better understanding
References Cited	Environmental Science by A.K.Dey
Student Activity Planned after the teaching	Seminars.
Any other activity	Slip test. Determination of Cl^- by pr...

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Y. Durga Prasad
Course / Group	III BSc, Sem-V
Paper	Paper-7C, Industrial Chemistry-2
Name of the Topic	Org polymers-2 and air pollution
Hours Required	2 + 8 hrs
Learning Objectives	Prep. and uses of some polymers, sources, effects and control of air pollution
Previous Knowledge to be reminded	Reminded pollution chapter studied in Jr Inter

Topic Synopsis:

Organic Polymers-2 : Industrial manufacturing and applications of Polystyrene, polyacrylonitrile, polymethacrylate and polymethylmethacrylate.

Unit-3: Air Pollution : Sources of air pollution - general and specific sources.

Acid Rain : Causes, bad effects, control.

Photochemical Smog : Causes, bad effects.

Greenhouse effect : Green house gases and their sources, causes, bad effects and control of global warming.

Ozone depletion : Formation of ozone, causes of depletion, role of ozone layer, bad effects and control.

Sources and effects of various gaseous pollutants : Oxides of nitrogen (NO_x), oxides of sulphur (SO_x), CO, hydrocarbons, suspended particulate matter (SPM).

Controlling methods of air pollution : Equipment used in control like electrostatic precipitators etc.

Examples / Illustrations	Students are advised to collect news paper clippings relating air pollution
Additional Inputs	Study material, news paper clippings
Teaching Aids Used	Internet and You Tube.
References Cited	Environmental Science by A.K. Dey.
Student Activity Planned after the teaching	Students are asked to observe the effects of air pollution in their surrounding
Any other activity	Assignments & Seminars

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Dr. N. T. SOLOMON BABU
Course / Group	B.Sc chemistry
Paper	III Spectroscopy & organic
Name of the Topic	NMR Spectroscopy - I
Hours Required	4
Learning Objectives	To understand Basic Principles of NMR
Previous Knowledge to be reminded	Important spin of Nucleus and electron

Topic Synopsis:

Nucleus also has spin Quantum number
Each nucleus acts like a Bar magnet.
When Magnetic resonance is shown Protons are placed in an external field. Some are all signed with external Magnetic field and other are against it. They are said to be in α-state and β-state
The Difference of energy is dependent on external field strength B_0.
All Protons are expected to produce same signals by absorbing radio waves and re-emitting them
However, Protons are not equivalent due to different Chemical environments. Ex CH_3-OH - 2 signals
TMS is used as ref standard, its $\delta = 0$
Chemical shift is difference in PPM between the Resonance frequency of observed Proton and that of reference

Examples / Illustrations	DMF examples for Electron-Environment
Additional Inputs	NMR
Teaching Aids Used	PPT
References Cited	Org. Spectroscopy - YR Sharma
Student Activity Planned after the teaching	Solving Problems
Any other activity	

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Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr. N.T. SOLOMON BABU
Course / Group	B.Sc chemistry
Paper	IV
Name of the Topic	Photochemistry
Hours Required	6
Learning Objectives	To know about Photochemical reactions
Previous Knowledge to be reminded	2 photophysical Processes Concept of EMR, absorption shift

Topic Synopsis:

In thermochemical reactions, free energy decreases where as in Photochemical reactions, it increases

- Grotthus and Draper law: only those radiations which are absorbed by molecule are effective in bringing about a chemical change
- Stark Einstein law: Each reacting molecule absorbs one quantum of radiation
- The Quantum yield ϕ is supposed to be one. The high ϕ values as $H_2+Cl_2 \rightarrow 2HCl$ reaction and low ϕ values as $H_2+Br_2 \rightarrow 2HBr$ has a very low ϕ value. They can be explained by mechanism
- Jablonsky diagram explains various changes taking place in a molecule after absorbing light
- Fluorescence & Phosphorescence are two photophysical Processes
- Photosensitised reactions

Examples / Illustrations	Some luminiscent Bodies
Additional Inputs	NPTEL
Teaching Aids Used	BB
References Cited	Spectroscopy & physical by Bahadur Rastogi
Student Activity Planned after the teaching	Assignment
Any other activity	

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Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr. N. T. SOLOMON BABU
Course / Group	B.Sc
Paper	IV
Name of the Topic	Thermodynamics - I
Hours Required	5
Learning Objectives	To understand the concepts of entropy and the statements
Previous Knowledge to be reminded	Carnot cycle

Topic Synopsis:

From the efficiency of Carnot engine, Concept of State function entropy is defined. It is a measure of disorder or Probability. Entropy increases in an irreversible Process Decreases in a Reversible Process. Helmholtz and Gibbs free energies are two thermodynamic functions used to know the feasibility of a reaction.

Third law of Thermodynamics states that the Entropy of every Pure & Perfect crystalline substance approaches zero at 0 °K. Nernst heat Theorem is given by $\lim_{T \to 0} \frac{d(\Delta G)}{dT} = \lim_{T \to 0} \frac{d\Delta H}{dT} = 0$

Examples / Illustrations	Expln of Entropy & Natural Process
Additional Inputs	NIL
Teaching Aids Used	PPT
References Cited	Spectroscopy - Physical - Bahl & Bahl
Student Activity Planned after the teaching	Assignment
Any other activity	Problems

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Name of the Department / Subject	CAE MILLY
Name of the Lecturer	Dr N. J SOLOMON RAJU
Course / Group	B.Sc Chemistry
Paper	Paper III - Spectroscopy & organic
Name of the Topic	Electronic Spectroscopy
Hours Required	4
Learning Objectives	To know types of transitions, and their interpretation
Previous Knowledge to be reminded	MO Diagram, σ, π, n electrons

Topic Synopsis:

When electromagnetic radiations are absorbed by molecules, they follow some rules called selection rules. Electronic transitions take place from highly occupied Bonding MO to less occupied anti Bonding MO's. Four types of transitions are possible, namely $n \to \pi^*$, $n \to \pi^*$, $\sigma \to \sigma^*$ $\pi \to \pi^*$ transitions. Unsaturated compounds give $\pi \to \pi^*$ transitions, where as the compounds with Hetero atom forms $\pi \to \sigma^*$ as $n \to \pi^*$ transitions. Presence of conjugated double bonds shifts λ max towards to light. Presence of chromophores and auxochromes are responsible for colour of compounds. Beer-Lambert law is derived.

Examples / Illustrations	
Additional Inputs	Notes
Teaching Aids Used	Black Board
References Cited	Spectroscopy by PR Sharma
Student Activity Planned after the teaching	Assignment
Any other activity	Solving Problems

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Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. KUSUMA KUMARI.
Course / Group	I B.Sc
Paper	Paper I
Name of the Topic	CHEMICAL BONDING -
Hours Required	SIX HOURS.
Learning Objectives	Understand M.O Theory & Conductivity
Previous Knowledge to be reminded	Hybridization.
Topic Synopsis:	The covalent bond formed between 2 atoms is explained by Valency Bond theory. (VBT). Hybridisation of atomic orbitals in bond formation. — sp, sp^1, sp^3, d^2sp^3, d^3sp^3, d^4sp^3 etc. dsp^2 — eg: ClF_3 — T shaped, sp^3 :— eg: $Ni(CO)_4$ Molecular orbital theory :- (MOT) — Linear Combination of atomic orbitals. (MOT) LCAO leads to Bonding and anti bonding orbitals. Energy order of orbitals of N_2 molecule is — $\sigma_{1s} < \sigma^*_{1s} < \sigma_{2s} < \sigma^*_{2s} < \sigma_{2px} < \pi_{2py} = \pi_{2pz} < \pi^*_{2py} < \pi^*_{2pz}$ Bond order for N_2 = No. of Bonding orbitals e' — Anti bonding electrons. $N_2 = 7+7 = 14$, B.O $= \frac{10-4}{2} = \frac{6}{2} = 3$. Triple Bond $O_2 = 8+8 = 16$, $\sigma_{1s}^2, \sigma^{*2}_{1s}, \sigma_{2s}^2, \sigma^*_{2s}{}^2, \sigma^2_{2pz}, \pi^2_{2py}, \pi^2_{2px}, \pi^{*1}_{2py}, \pi^{*1}_{2px}$ B.O $= \frac{10-6}{2} = \frac{4}{2} = 2$, O=O Paramagnetic. CO molecule — $6+8 = 14$ electrons. $\sigma_{1s}^2, \sigma^{*2}_{1s}, \sigma_{2s}^2, \sigma^*_{2s}{}^2, \pi^2_{2py}, \pi^2_{2pz}, \sigma^2_{2px}$; BO $= \frac{10-4}{2} = \frac{6}{2}$ C≡O — diamagnetic NO — $7+8 = 15 - \sigma_{1s}^2, \sigma^{*2}_{1s}, \sigma_{2s}^2, \sigma^*_{2s}{}^2, \sigma^2_{2px}, \pi^2_{2py}, \pi^2_{2pz}, \pi^{*1}_{2pz}$ B.O $= \frac{10-5}{2} = 2.5$
Examples / Illustrations	Molecular orbital Theory.
Additional Inputs	Shapes of orbitals.
Teaching Aids Used	Diagrams on the B.B.
References Cited	Unified Chemistry, O.P. Agarwal.
Student Activity Planned after the teaching	Student Seminars, Assignment.
Any other activity	Assignment.

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Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr N.J SOLOMON BABU
Course / Group	B.Sc. MPC & CBZ
Paper	III - Spectroscopy & organic chem
Name of the Topic	Vibrational Spectroscopy
Hours Required	4
Learning Objectives	To know the applications of spectroscopy
Previous Knowledge to be reminded	Principle of Molecular spectroscopy

Topic Synopsis:

Harmonic oscillator & anharmonic oscillator

Vibrational degrees of freedom is given by $3n-6$ for non linear molecules and $3n-5$ for linear molecules

Vibrations are important. They are broadly classified as Stretching and bending Vibrations

The stretching vibrations are of two types viz symmetric and non symmetric.

Bending Vibrations are are four types, viz in plane and out of plane Vibrations

Vibrational transitions are fundamental, first overtone and second overtone etc.

There are two regions, functional group region and finger print region

Examples / Illustrations	Different Vibrations
Additional Inputs	Notes
Teaching Aids Used	Black Board
References Cited	Elementary org. spectroscopy. Y.R Sharma
Student Activity Planned after the teaching	Assignment and Problem solving
Any other activity	

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Proforma for Teaching PLAN

Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. KUSUMA KUMARI.
Course / Group	I B Sc II Sem.
Paper	Paper II
Name of the Topic	Chemical Bonding.
Hours Required	06 hrs.
Learning Objectives	Learn about Hybridisation & bonding
Previous Knowledge to be reminded	Knows about bonding types etc.
Topic Synopsis:	1. Overlapping of atomic orbitals having half filled electrons with opposite spins is covalent bond or valency bond theory. $H^{\cdot} + H^{\cdot} \longrightarrow H_2$ molecule. 2. Sigma bonds, π bonds. Concept of Hybridisation. 3. sp_3, sp_2, sp, sp^3d, sp^3d^2, sp^3d^3 decides the structure of the molecule. 4. Application of V.B theory: eg: ClF_3, BrF_5, $Ni(CO)_4$ etc 5. Molecular orbital theory, LCAO Method. 6. Energy level diagrams for molecular orbitals. 7. Isoelectronic series. 8. Calculating the Bond order for the molecules. 9. More the no. of bonding electrons ~~the~~ higher will be the Stability 10. Relative energies of MO orbitals — $\sigma 1s < \sigma^* 1s < \sigma 2s < \sigma^* 2s < \pi 2p_y = \pi 2p_z < \sigma 2p_x < \pi^* 2p_y = \pi^* 2p_z < \sigma^* 2p_x$ etc.
Examples / Illustrations	Structures on the Board.
Additional Inputs	Google lessons.
Teaching Aids Used	Black Board.
References Cited	O. P. Agarwal Text book.
Student Activity Planned after the teaching	Q & A. Assignment.
Any other activity	Exam.

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Dr. N.V. SOLOMON BABU
Course / Group	B.Sc. MPC & CBZ
Paper	Paper III
Name of the Topic	Halogen compounds
Hours Required	5 hrs
Learning Objectives	Understand SN^1 & SN^2 reactions
Previous Knowledge to be reminded	Hydrocarbons, functional groups

Topic Synopsis:

Methods of Preparation of Haloalkanes
Nucleophilic substitution reactions their two types of Mechanisms. SN^1 & SN^2.
SN^2 mechanism is bimolecular and rate is dependent on concentrations of Alkyl halide and nucleophile. This is carried through a transition state and walden inversion takes place
SN^1 mechanism involves the formation of Carbonium ion and racemisation takes place.
Relative reactivity of alkyl, allyl, benzyl, vinyl, and aryl halides are discussed.
SN_Ar, and Benzyne mechanism are also studied

Examples / Illustrations	Examples & Stereochemistry
Additional Inputs	NSAs
Teaching Aids Used	Black Board
References Cited	org. chemistry - Morrison & Boyd
Student Activity Planned after the teaching	Assignments
Any other activity	

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Dr. N.J. SOLOMON BABU
Course / Group	B.Sc MPC & CBZ
Paper	III
Name of the Topic	Hydroxy compounds
Hours Required	5
Learning Objectives	Know the Prep & Properties of ROH, Ar-OH
Previous Knowledge to be reminded	Hydrocarbons, Hydroxy grp

Topic Synopsis:

Preparation, Properties and relative reactivities of $1^0, 2^0, 3^0$ alcohols. Bouveault-Blanc Reduction, Oxidation of diols by Periodic acid and LTA, Pinacol-Pinacolone rearrangement.

Phenols: Preparation and properties of, Acidity and factors affecting it, Ring substitution reactions Reimer Tiemann reaction and Kolbe Schmidt reaction.

Fries rearrangement and mechanism.

Examples / Illustrations	alcohols Preparations & reactions
Additional Inputs	Notes
Teaching Aids Used	BB
References Cited	Org. chemistry Morrison & Boyd
Student Activity Planned after the teaching	Assignment
Any other activity	

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Name of the Department / Subject	Chemistry
Name of the Lecturer	Dr. N.J. SOLOMON RAJU
Course / Group	B.Sc MPC & CBZ
Paper	III
Name of the Topic	Carbonyl Comp - I
Hours Required	5
Learning Objectives	Know the Preps & Props of aldehydes & ketones
Previous Knowledge to be reminded	Hydrocarbons, Hydroxy comp

Topic Synopsis:

Nomenclature of aliphatic and aromatic Carbonyl comp
Structure of carbonyl group. Synthesis of aldehydes and Ketones using 1,3 dithianes.
Synthesis of Ketones from nitriles and from Carboxylic acids
Physical Props; Reactivity of Carbonyl group in aldehydes and Ketones
Nucleophilic addition reactions of aldehydes with $NaHSO_3$, HCN, RMgX, NH_2OH, $PhNHNH_2$, 2,4 DNPH
Aldehydes: Formalin, Paraldehyde and acetals

Examples / Illustrations	Some Common Carbonyl comps
Additional Inputs	NPTEL
Teaching Aids Used	BB
References Cited	Org. Chemistry - Finar Vol I
Student Activity Planned after the teaching	Assignment
Any other activity	

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Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. KUSUMA KUMARI.
Course / Group	I B. Sc II Sem.
Paper	Paper II
Name of the Topic	Alkenes & Alkynes.
Hours Required	12 hrs.
Learning Objectives	Learn about C=C bonds.
Previous Knowledge to be reminded	Knows about hydrocarbons.
Topic Synopsis:	(1) These are the Compounds with C=C double bonds & C≡C triple bonds. (2) Their preparation & properties (3) These Compounds undergo addition reactions (4) Addition of Halogens through Markownikoff's rule. i.e. the -ve part of the addendum will go to the carbon with the no. of H's atoms. But in the presence of peroxides the reac is anti Markownikoff's rule. (5) Ozone addition indicates the location of the double bo (6) Oxidation with different oxidising agents i.e, Cold KMn Peracids, OsO_4, H_2O_2. (7) 1,3 Buta diene — Conjugated diene prep, and prope (8) Acetylene prep and properties. one Sigma bond & 2 bonds below C and carbon. Two weak bonds, Addition Oxidation, Formation of metal acetylides.
Examples / Illustrations	Structures on the Board.
Additional Inputs	Google lessons.
Teaching Aids Used	Black Board.
References Cited	O. P. Agarwal Text book.
Student Activity Planned after the teaching	Assignment.
Any other activity	Exam.

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Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr. M. KUSUMA KUMARI
Course / Group	III B.Sc
Paper	Sem VI Paper 6C
Name of the Topic	PAPER INDUSTRY.
Hours Required	5+5 — 10 hrs
Learning Objectives	To learn manufacture of Pulp & Paper
Previous Knowledge to be reminded	Students know is paper & how it made Paper?
Topic Synopsis:	1. Kraft pulping. 2. What is pulp., Sulphate wood pulp, Soda pulping, Rag pulping, Colouring of the pulp 3. Manufacture of paper. 4. Beating of pulp. 5. Filling of pulp. 6. Rifining of pulp. 7. Sizing of Pulp.
Examples / Illustrations	Diff A Papers.
Additional Inputs	Google lessons.
Teaching Aids Used	B.B. Materials.
References Cited	Industrial Chemistry - Dr. B.V. Gopal Rao.
Student Activity Planned after the teaching	observing internet for paper pulp manufacture.
Any other activity	

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Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. KUSUMA KUMARI.
Course / Group	Sem V
Paper	Paper VI, Inorganic.
Name of the Topic	Reactivity of Metal Complexes.
Hours Required	4 hrs.
Learning Objectives	Substitution reactions. Learn about Coordination compounds.
Previous Knowledge to be reminded	Metals & Metallic properties.
Topic Synopsis:	Metal-ligand Complexes are classified into 2 types. stable and unstable complexes – Thermodynamic classification. Labile and inert complexes, is a kinetic classification. 2) The rate at which a ligand 'L' of the complex $[ML_n]$ can be substituted by another ligand (X) is a kinetic property. 3) If the rate of substitution is High, Complex is Labile. If the rate of substitution is low, Complex is Inert. 4) Lability or inertness of a complex depends upon activation energy (E_a) of the substitution processes. 5) Ligand substitution reactions are of 2 types – SN_1 & SN_2 6) Since ligands are nucleophiles (+ve seeking) reactions are called nucleophilic substitution reactions. 7) SN_1 rate $\propto$ [complex], SN_2 rate $\propto$ [complex][ligand] 8) Labile Complexes exhibit SN_2 mechanism. C.O.N. increases in the rate determining step. Inert Complexes exhibit SN_1 mechanism. coordination no. decreases in the rate determining step. 9) Some groups favour the substitutions of ligands in trans position this is called trans effect. Groups weaken the diagonal bonds 10) Trans effect is useful in the synthesis of complexes of required config.
Examples / Illustrations	Substitutions
Additional Inputs	Rate of Reactions.
Teaching Aids Used	B.B,
References Cited	O.P. Agarwal Text book.
Student Activity Planned after the teaching	Assign.
Any other activity	Exam.

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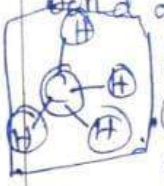
Name of the Department / Subject	CHEMISTRY
Name of the Lecturer	Dr. M. KUSUMA KUMARI
Course / Group	II Sem I B.Sc.
Paper	Paper II
Name of the Topic	Alkanes & cycloalkanes
Hours Required	12 hrs.
Learning Objectives	Learn about prep & prop of alkanes.
Previous Knowledge to be reminded	Know basic Organic Compounds.

Topic Synopsis: 1. Compounds Contain Carbon and Hydrogen are the simplest Org. compounds with single covalent bond are called alkanes. Carbon undergoes sp^3 hybrid



bond angle is 109°28'.

(2) Prep – Wurtz reaction, Corey-House reaction, other

$CH_3-\overline{I} + 2Na + \overline{I}-CH_3$ $CH_3-CH_3 + 2NaI$.

using alkyl lithium, Rmgx we can synthesise alkanes.

(3) Prep:- Alkanes undergo substitution reactions.

(4) Free radical Halogenations – Chain initiation, Propaga and termination steps.

(5) Conformational analysis of alkanes.

Conformations of n-butane – I Anti (stable) II Gauche III Eclipsed IV Fully eclipsed Conformations are There.

(6) Cycloalkanes – Prep & properties and stability.

(7) Baeyer strain theory:- $d = \frac{1}{2}(109°28' - \alpha)$

(8) greater the deviation of bond angle from 109°28' greater is the strain.

Examples / Illustrations	Structures on the board.
Additional Inputs	Prep. of the Charts.
Teaching Aids Used	Black board.
References Cited	O. P. Agarwal Text book.
Student Activity Planned after the teaching	Q & A.
Any other activity	Exam.

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Name of the Department / Subject	CHEMISTRY.
Name of the Lecturer	Dr. M. Kusuma Kumari.
Course / Group	III B.Sc Sem VI Paper 6C
Paper	6C
Name of the Topic	SEMINAR Sugar Chemistry
Hours Required	8 hours.
Learning Objectives	understanding how to manufacture sugar. About sugars
Previous Knowledge to be reminded	
Topic Synopsis	1. Estimation of Sucrose through Colourimetry solutions required to prepare, Instrumentation and experiment and Result. 2. Manufacture of Sucrose from beet root. Sugar beet can grow in temperate climates. 3. Recovery of Sucrose from cane sugar. Cane → Milling → Juice → Clarification → Evaporation → V. Pans → Crystallization → Centrifugal → Sugar + Bagasse 4) Testing of Sugars 5) Sugars – Sucrose, 12 atoms of carbon, 22 atoms of 'H' and 11 atoms of oxygen. Mol. formula – $C_{12}H_{22}O_{11}$. It is a carbohydrate. Its colour dark to light brown syrup. 6) Molasses – It is a left over from sugar cane juice.
Examples / Illustrations	Juice stalls.
Additional Inputs	Prepared Charts.
Teaching Aids Used	P.B.
References Cited	Industrial Chemistry – Dr. B. V. Gopal Rao
Student Activity Planned after the teaching	To visit the sugar cane juice stalls.
Any other activity	explore youtube videos.

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Teaching Plan Economics

Andhra Christian College, Guntur
Proforma for Teaching Synopsis

Name of the Department / Subject	Economics.
Name of the Lecturer	Dr. N.M. Mandula.
Course / Group	HEP. BA.
Paper	Agricultural Economics.
Name of the Topic	Agriculture Structure - Productivity.
Hours Required	2 (two)
Learning Objectives	To learn about structure & productivity of ag in India
Previous Knowledge to be reminded	About structure of agriculture in their village
Topic Synopsis:	Agriculture is the backbone of the Indian economy, contributing to around 16.5% of India's GDP & employing over 50% of the workforce. The Indian agriculture market is valued at USD 435.7 billion as of 2022 and is expected to reach USD 520.32 billion by 2028, growing at a CAGR of around 4.7% between 2023 & 2028. The structural transformation is defined as the reallocation of economic activity across three broad sectors (agriculture, manufacturing and services) that accompanies the process of economic growth. Structural transformation is defined as the transition of an economy from low productivity and labour-intensive economic activities to higher productivity and skill intensive activities. The driving force behind structural transformation is the change of productivity in the modern sector, which is dominated by manufacturing and services. Agricultural productivity in India varies due to factors such as climate & weather conditions, soil quality, use of high yield variety seeds, photos of photos of food grains.
Examples / Illustrations	Photos of fields, tools & implements
Additional Inputs	chalk & black board.
Teaching Aids Used	
References Cited	"Indian Economy" Datt & Sundaram.
Student Activity Planned after the teaching	To encourage students to discuss about ag productivity in their village.
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	Dept. of Economics, Development Economics
Name of the Lecturer	Dr. M. Murali Mandala.
Course / Group	M.A. II M.A. 3rd Semester
Paper	III Paper Development Economics
Name of the Topic	Concept of Economic Growth.
Hours Required	1.
Learning Objectives	Meaning of Economic Growth.
Previous Knowledge to be reminded	Topic covered.

Topic Synopsis: Economic Growth is a traditional concept developed in advanced countries like USA, UK etc., Economic Growth is indicated by the increase in N.I and percapita income. Economic Growth concerns the development of theories for the increase in National income & p.c.i. The concept is associated with little scope for extensive problems. It is a short term phenomena

Economic Growth begins about Economic development. Without Economic Growth there can't be Economic development. Measurement of Economic Growth can take place with the help of different theories Growth has led to the development which were also useful for the development of the developing countries would with helped with the speedy Economic Growth development of the English → European countries' economic growth helped in the Industrial Revolution etc., Economic growth led to the development of the developing countries in Asia, & Africa.

Examples / Illustrations	USA, UK, Canada etc.,
Additional Inputs	Students asked to explain Eg.
Teaching Aids Used	Board & chalk
References Cited	'Economics' - P.A. Samuelson.
Student Activity Planned after the teaching	Students asked to explain Eco. growth
Any other activity	Meaning of Economic Growth.

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics.
Name of the Lecturer	Dr. N. Radha Mrudula
Course / Group	I/E P - III BA.
Paper	Agricultural Economics
Name of the Topic	Structural transformation of Indian industry.
Hours Required	2 hours.
Learning Objectives	Status of Indian Industry, Steps to increase, Sectoral structure
Previous Knowledge to be reminded	Role of Indian Industry - Structure, Technology

Topic Synopsis:

Change in final demand and are the main drivers of labour productivity growth. A number of recent interesting changes in the industrial structure, have provided the backdrop of changes in policy analytic approaches while priority to exports at the current stage of development is well taken, in the last 65 years, industrial overall production went up by five, six times, making India one of the top 10 most industrial nations of the world. The industrial structure has been widely diversified from being only consumer goods to entire range of consumer, intermediate and capital goods.

Industrial structure describes the composition of a country's economic activity; the production of different sectors. Industries are usually categorized into three basic types according to their stage within the production process, or the type of value being added to a natural resource.

Examples / Illustrations	Industrial structure before independence
Additional Inputs	
Teaching Aids Used	Board & chalk.
References Cited	Indian Industry.
Student Activity Planned after the teaching	Present status of Industry
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics
Name of the Lecturer	Dr. N. M. Nandula
Course / Group	BA, II yr, II Sem Economics
Paper	IV
Name of the Topic	Differences between Eco G & E Dev
Hours Required	3
Learning Objectives	To make the student understand & remember about the developing countries
Previous Knowledge to be reminded	

Topic Synopsis:

Meaning of Eco growth & economic development concepts, meaning & importance

1. Eco growth is a physical phenomena.
2. Includes NI & PCI
3. Quantitative
4. There can be no dev without E.G.
5. EG is a traditional concept
6. Concerns developed countries
7. well defined theories
8. developed in 20th century
9. can be compared to the physical weight growth of man
10. Eco growth is quantifiable & can measure

1. E.D is a comprehensive concept.
2. Includes both NI & PCI & other structural concepts. intellectual & qualitative factors
3. Quantitative & qualitative
4. There can be no dev without growth
5. Modern concept & concerns developing countries.
6. Less developed countries.
7. Developed in 19th cent
8. Can be compared to mental growth
9. E.D is depend upon the all round dev

Examples / Illustrations	Example EG is USA, E.D is India
Additional Inputs	
Teaching Aids Used	Board, chalk & maps.
References Cited	Indian economy - Dutt & Sundaram
Student Activity Planned after the teaching	Related Issues
Any other activity	Identifying countries.

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Name of the Department / Subject	Economics.
Name of the Lecturer	Dr. N.M. Mrudula.
Course / Group	I/E P
Paper	Agricultural Economics.
Name of the Topic	Importance of Agricultural sector.
Hours Required	2.
Learning Objectives	Meaning of Agriculture, Importance.
Previous Knowledge to be reminded	Knowledge of fields, rural area.

Topic Synopsis:

Agriculture - meaning.
Status of agriculture in India - A.P.
Contribution of Agricultural sector in India
Share of agl. sector in the National income.
- supply food grains to meet the consumption needs of the population.
- Helps in earning foreign exchange resources to India, through exports.
- source of livlihood to more than 50% of the population in India
- Agriculture is the backbone of the rural areas/villages in India.
- It is an unorganised sector. It is called the primary sector or the first sector

Examples / Illustrations	Growing of paddy wheat etc.,
Additional Inputs	Pics of fields Pics of different crops.
Teaching Aids Used	Chalk & Board.
References Cited	Dutt & Sundaram, Indian Economy
Student Activity Planned after the teaching	Asking students what crop is cultivated in their village.
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ECONOMICS.
Name of the Lecturer	Dr N.M. Mandula.
Course / Group	Economics, HAP, III BA
Paper	Agricultural Economics
Name of the Topic	Disinvestment in India - FEMA
Hours Required	2 Hrs.
Learning Objectives	Meaning of disinvestment, FEMA.
Previous Knowledge to be reminded	Meaning of investment.

Topic Synopsis: Disinvestment is in the form of transfer of shares. An Indian Party may transfer by way of sale to another Indian Party which complies with FEMA regulations or to a Person resident outside India, any share or Security held by it in an overseas JAV or WOS.

It is provided that any investment or financial commitment made outside India in accordance with FEMA - where the disinvestment by a person resident in India.

'Disinvestment' means partial or full extinguishment of right, title or possession of equity capital acquired under FEMA Rules.

A minority disinvestment is one that at the end of it, the government retains a majority stake in the Company, typically greater than 51%, thus ensuring management control.

Examples / Illustrations	Sugar factory, Steel plant in AP.
Additional Inputs	Eg given as NMDC Steel Limited Chhattisgarh.
Teaching Aids Used	Black Board & chalk.
References Cited	Indian Economy - A.S. Srinivasan
Student Activity Planned after the teaching	To give examples of disinvestment in India.
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ECONOMICS
Name of the Lecturer	Dr. N. M. Mandula.
Course / Group	HEP, III BA.
Paper	Agricultural Economics
Name of the Topic	Emerging trends in food processing in Indian Agriculture
Hours Required	2 hours.
Learning Objectives	change in food processing.
Previous Knowledge to be reminded	Food processing in their villages.
Topic Synopsis:	The food processing sector is not only essential in conducting our daily lives, but it is also a significant economic pillar. The route our food takes from the farm to the plate has undergone a sea change over a period. Food processing refers to the conversion of raw agricultural products into value added products for human consumption. The products consumed undergo several ~~processes~~ processes such as harvesting, cleaning, packing, grading, processing and transportation. The raw products from agriculture, dairy plant based/poultry meat, etc., undergo processing involving cutting edge technology for post-harvest processing. The food procus sector continues to innovate on adopted methods of spray dying, colorants, sweeteners, preservatives, addition of newer trends such as plant based meat, ready to eat, bakery ingredients etc.,
Examples / Illustrations	Food processing in pickles, canning eg of food processing.
Additional Inputs	
Teaching Aids Used	Chalk & black board.
References Cited	A.N. Agarwal, 'Indian Economy'
Student Activity Planned after the teaching	To mention food processing they know.
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics.
Name of the Lecturer	Dr N.M. Mrudula.
Course / Group	UG-P, III BA & 6th Semester Agricultural Economics.
Paper	
Name of the Topic	Agrarian Reforms & their role in Economic Devt.
Hours Required	2.
Learning Objectives	Reforms in Agriculture - Role
Previous Knowledge to be reminded	Idea on Reforms?

Topic Synopsis: Agricultural reform is a necessity for a transition to sustainable food production, responding to global change & safeguarding food and nutritional security.

In India, prior to the Green Revolution (what & paddy) in the late 1950's & early 1960's, agriculture was unable to sustain the country's growing population, and had to undergo several improvements in order to achieve a self-sustaining agricultural system. So due to the agricultural advancements, as part of the Green Revolution, which improved agricultural facilities, & introduced High Yielding Varieties (HYV) to transform agriculture to what we know today. Such reforms are required to correct certain flaws in the system, which are inevitable and are required for the constant maintenance of the functionality of agricultural systems.

Examples / Illustrations	Green Revolution, land reforms.
Additional Inputs	Maps on Agriculture in India
Teaching Aids Used	Black board & chalk.
References Cited	'Indian Economy' - A.N. Sindhra
Student Activity Planned after the teaching	Recapture reforms in agriculture
Any other activity	

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Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

$y = Au + B \cdot v$ be the general solution

where $A = -\int \frac{vR\,dx}{u \cdot v' - u \cdot u'}$; $B = \int \frac{uR\,dx}{u v' - v \cdot u'}$.

Cauchy-Euler equation:

$x^n \cdot \frac{d^n y}{dx^n} + P_1 \cdot x^{n-1} \frac{d^{n-1} y}{dx^{n-1}} + P_2 \cdot x^{n-2} \cdot \frac{d^{n-2} y}{dx^{n-2}} + \cdots + P_n \cdot y = Q$.

Put $x = e^t \Rightarrow t = \log x$: $xD = \theta$ $x^2 D^2 = \theta(\theta-1)$: $x^3 D^3 = \theta(\theta-1)(\theta-2)$

Legendre's linear Equation:

$(ax+b)^n \cdot \frac{d^n y}{dx^n} + P_1 (ax+b) \cdot \frac{d^{n-1} y}{dx^{n-1}} + \cdots + P_{n-1} (ax+b) \cdot \frac{dy}{dx} + P_n \cdot y = Q$

take $(ax+b)^n D^n = a^n \theta(\theta-1) \cdots (\theta-n+1)$ where $\theta = d/dt$.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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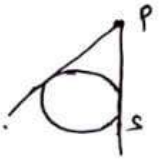
Andhra Christian College, Guntur
Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics.
Name of the Lecturer	Dr. J. M. Pradeep.
Course / Group	B.Sc / B.A.
Paper	SOLID GEOMETRY - II
Name of the Topic	Cones.
Hours Required	14
Learning Objectives	Students would learn the concept of cone and learn to solve the problems.
Previous Knowledge to be reminded	Students has to have the knowledge of plane, tangent, Normal.

Topic Synopsis:

Cone is a surface generated by a st. line which passes through a fixed point and satisfies the conditions, ie Intersects a given curve or touch a given surface. The fixed point is called vertex. The given curve is called the Guiding curve of the cone.

Let 'S' be a surface and 'P' be a point not on the surface. The surface generated by tangent lines to the external point is called enveloping cone.



A cone of second degree is called a quadric cone.

$x^2+y^2-z^2=0$. is a quadric cone.

The eqi $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ represents a quadric cone with its vertex at the origin.

$fyz+gzx+hxy=0$ represents the general eqi of the cone of second degree which passes through the co-ordinate axes.

Examples / Illustrations	Deepthi Text book.
Additional Inputs	
Teaching Aids Used	Black board.
References Cited	
Student Activity Planned after the teaching	Home work
Any other activity	

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Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	
Name of the Lecturer	Dr. J. M. Pradeep.
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

Problems:

1) $(D^2-4D+4)y = x^3$.

2) $(D^2-2D+4)y = 8(x^2+e^{2x}+\sin 2x)$

3) $(D^2-4)y = x^2$

4) $(D^4+b^2)y = 3x^2+4\sin x-2\cos x$.

1) $\frac{d^2y}{dx^2}-6\cdot\frac{dy}{dx}+13y = 8e^{3x}\cdot\sin 2x$.

2. $(D^2-2D)y = e^x\cdot\sin x$.

3) $(D^2-4D+3)y = 2xe^{3x}+3e^x\cdot\cos 2x$

4) $(D^2-4D+1)y = e^{2x}\cdot\cos^2 x$.

$(D^2+4)y = x\sin x$. $(D^4+2D^2+1)y = x^2\cdot\cos x$

$(D^2-2D+1)y = xe^x\sin x$ $(D^2-4D+4)y = 8x^2e^{2x}\cdot\sin 2x$.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

If $Q = bx^k$ and $f(D) = D - a_0$, $a_0 \neq 0$

(i) $f(D).y = Q \Rightarrow y = \frac{1}{D-a_0} bx^k = \frac{1}{-a_0\left(1-\frac{D}{a_0}\right)} bx^k = \frac{-1}{a_0}\left(1-\frac{D}{a_0}\right)^{-1} bx^k$.

(ii) If $f(D).y = bx^k$ and $f(D) = c.D^m(1+\psi(D))$

$\frac{1}{f(D)} bx^k = \frac{1}{cD^m(1+\psi(D))} bx^k = \frac{1}{cD^m}(1+\psi(D))^{-1}.bx^k$.

where D^m is the lowest power of D in $f(D)$.

4) If $Q = e^{ax}.V$ where V is a function of x.

$\frac{1}{f(D)} e^{ax}.V = e^{ax}.\frac{1}{f(D+a)}.V$.

5) If $Q = x.V$ where V is a function of x.

$\frac{1}{f(D)} x.V = x.\frac{1}{f(D)}.V - \frac{f'(D)}{[f(D)]^2}.V$.

Examples / Illustrations	from Deepthi Text book.
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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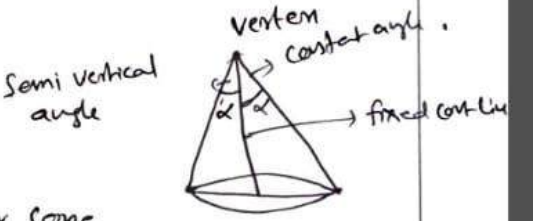
Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

• The locus of the lines through the vertex of the given cone ⊥lr to the tangent planes is called the Reciprocal cone of the given cone.

• the reciprocal cone of $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ is $Ax^2+By^2+Cz^2+2Fyz+2Gzx+2Hxy=0$ where A, B, C, F, G, H are cofactors of a, b, c, f, g, h in the determinant

$$\begin{vmatrix} a & h & g \\ h & b & f \\ g & f & c \end{vmatrix}.$$



Right circular cone:

Every section of a right circular cone by any plane ⊥lr to its axis is a circle.

Examples / Illustrations	Deepthi Text book.
Additional Inputs	
Teaching Aids Used	Black board.
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	

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Andhra Christian College, Guntur
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Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

The general equation of second degree $ax^2+by^2+cz^2+2fyz+2gzx+2hxy+2ux+2vy+2wz+d=0$ represents a cone if

$$\begin{vmatrix} a & h & g & u \\ h & b & f & v \\ g & f & c & w \\ u & v & w & d \end{vmatrix} = 0.$$

The cone $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ have 3 mutually perpendicular generators iff $a+b+c=0$.

The plane $lx+my+nz=0$ touches the cone $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ if

$$\begin{vmatrix} a & h & g & l \\ h & b & f & m \\ g & f & c & n \\ l & m & n & 0 \end{vmatrix} = 0.$$

Examples / Illustrations	from Deepthi Text book.
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Name of the Department / Subject	Mathematics.
Name of the Lecturer	Dr. J M. Pradeep.
Course / Group	B.Sc / B.A.
Paper	Differential Equations.
Name of the Topic	Higher order differential Equations.
Hours Required	10.
Learning Objectives	Students could learn L.D.E with non-constant coefficients, constant coefficients, Variation parameters, etc.
Previous Knowledge to be reminded	Solving P.I & different forms.

Topic Synopsis:

Equation of the form $\frac{d^2y}{dx^2} + P\frac{dy}{dx} + Q \cdot y = R$, where P, Q, R are functions of x is called L.D.E with non-constant coefficients.

- finding the Integral in C.F. by inspection method

$y = e^x$ is a part of C.F if $1+P+Q=0$.

$y = e^{-x}$ is a part of C.F if $1-P+Q=0$.

$y = e^{mx}$ is a part of C.F if $m^2+mp+Q=0$

$y = x$ is a part of C.F if $P+Qx=0$.

$y = x^2$ is a part of C.F if $2+2px+Qx^2=0$.

$y = x^m$ is a part of C.F if $m(m-1)+pmx+Qx^2=0$.

- Method of Variation of Parameters:

Given linear eqn is $\frac{d^2y}{dx^2} + P\cdot\frac{dy}{dx} + Qy = R$. —①

RH homogeneous eqn is $\frac{d^2y}{dx^2} + P\cdot\frac{dy}{dy} + Qy = 0$. —②.

let $y_c = c_1 u(x) + c_2 v(x)$ be the general solution of ②

$y = u(x)$; $y = v(x)$ are L.I solutions.

Examples / Illustrations	from Deepthi text book.
Additional Inputs	
Teaching Aids Used	Black Board.
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	Assignments.

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Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

Suppose $f(D)\cdot y = Q$ is a L.D.E: $\frac{1}{f(D)} Q$ is the particular Integral.

Methods of finding Particular Integral:

1) If $Q = b\cdot e^{ax}$. where 'a' is a constant.

P.I. $\frac{1}{f(D)} b e^{ax} = \frac{1}{f(a)} b e^{ax}$ if $f(a) \neq 0$

$= b \frac{e^{ax}}{\varphi(a)\, n!}\, x^n$ if $f(a) = 0$

2) If $Q = \sin(ax+b)$ (or) $\cos(ax+b)$

P.I $\frac{1}{f(D)} \sin(ax+b)$ or $\cos(ax+b)$ put $D^2 = -a^2$ if $f(-a^2) \neq 0$.

3) If D^2+a^2 is a factor of $f(D)$ i.e. $f(a^2) = 0$ then write $f(D) = (D^2+a^2)^n \varphi(D)$ replace D^2 in $\varphi(D)$ by $-a^2$ and then using $\frac{1}{(D^2+a^2)^n} b\cos ax = \frac{(-1)^n x^2}{n!\,(2a)^n} \cdot b\cos\left(ax + \frac{n\pi}{2}\right)$.

Problems:

$(D^3-5D^2+8D-4)\, y = e^{2x}$ $\quad (D^2+9)\, y = \cos^2 x$

$(D^2-3D+2)\, y = \cosh x$ $\quad (D^2-4D+3) y = \sin 3x \cdot \cos 2x$ $\quad \frac{d^2y}{dx^2} + 4y = e^x + 6\sin x + \cos x$.

Examples / Illustrations	from Deepthi text book.
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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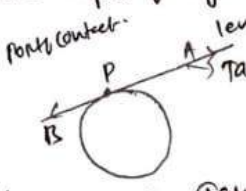
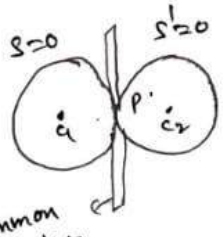
Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis: If a plane does not pass through the centre of a sphere and intersects the sphere then the plane section is called semi-circle.

• The eqn of sphere which intersect with a plane is $S+\lambda U=0$.



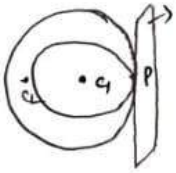
length of the Tangent line from 'P' to the sphere $S=0$ is $\sqrt{S_{11}}$.



Common Tangent plane

$C_1C_2 = r_1 + r_2$

'P' divides C_1C_2 in the ratio $r_1 : r_2$ internally.



$C_1C_2 = |r_1 - r_2|$

'P' divides C_1C_2 in the ratio $r_1 : r_2$ externally.

Examples / Illustrations	from Deepthi Text book.
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur
Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics.
Name of the Lecturer	DR. J.M. PRADEEP.
Course / Group	M.Sc
Paper	Differential Equations Paper-I
Name of the Topic	Higher order D.E (1) — (2) —
Hours Required	23.
Learning Objectives	Learn the concept of H.O.D.E, C.D.E, C.F P.I. solving H.O.D.E.
Previous Knowledge to be reminded	

Topic Synopsis:

- A linear differential equation of order 'n' can be written as $\frac{d^n y}{dx^n} + P_1 \cdot \frac{d^{n-1} y}{dx^{n-1}} + P_2 \cdot \frac{d^{n-2} y}{dx^{n-2}} + \cdots + P_n \cdot y = Q$. where $P_1, P_2 \cdots P_n$ are Continious functions on an interval I.
- The differential operator. $\frac{d}{dx}, \frac{d^2}{dx^2}, \frac{d^3}{dx^3} \cdots \frac{d^n}{dx^n}$ are respectively denoted by $D, D^2, D^3 \cdots D^n$.
- A linear differential equation can be represented as $f(D)=Q$ which is called operator form.
- The general solution of $f(D) \cdot y = Q$ is $y = y_c + y_p$ where 'y_c' is the general solution also called complementary function and y_p is called the particular integral.

If $f(D)=0$ is an n^{th} order D.E then $f(m)=0$ is called auxiliary Equation.

Nature of Roots

1) Real and distinct roots $m_1, m_2 \cdots m_k$
2) Real root 'm' repeated k times
3) complex roots $\alpha \pm i\beta$
4) Repeated complex roots.

Terms in C.F:

$c_1 e^{m_1 x} + c_2 e^{m_2 x} + \cdots + c_k e^{m_k x}$.

$(c_1 x^{k-1} + c_2 x^{k-2} + \cdots c_k) e^{mx}$.

$e^{\alpha x} (c_1 \cos\beta x \pm c_2 \sin\beta x)$.

$e^{\alpha x} [(c_1 x^{k-1} + c_2 x^{k-2} + \cdots + c_k)\cos\beta x + (c_{k+1} x^{k-1} + c_{k+2} x^{k-2} + \cdots)$ &

Examples / Illustrations	from Deepthi Text Book
Additional Inputs	
Teaching Aids Used	Black Board & Chalk.
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	

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Proforma for Teaching PLAN

Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

~~· the eqn of a plane of contact of the external point (x_1, y_1, z_1)~~

· If 'd' is the distance b/w the centres of two intersecting spheres $S=0$, $S'=0$ (or) radii r_1, r_2 and 'θ' is the angle of intersection of the spheres at a common point then $\cos\theta = \pm \frac{r_1^2 + r_2^2 - d^2}{2 r_1 r_2}$.

· Two intersecting spheres are said to be orthogonal sphere (or) cut orthogonally if the angle of intersection of the sphere is $\frac{\pi}{2}$.

· A system of spheres is said to be coaxal system of spheres if any two spheres of the system have the same Radical plane.

· the point sphere in a coaxal system of spheres are called limiting points of the coaxal system.

the limiting points of the coaxal system $x^2+y^2+z^2+2\lambda x+d=0$ of sphere are $(\pm\sqrt{d}, 0, 0)$.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

- Equation of the plane containing the lines $L_1=0$ and $L_2=0$ is

$$\begin{vmatrix} x-x_1 & y-y_1 & z-z_1 \\ l_1 & m_1 & n_1 \\ l_2 & m_2 & n_2 \end{vmatrix} = 0.$$

- Two lines are said to be skew lines if there exists no plane passing through them.
- 'l' and 'm' are two skew lines. If 'P' is a point on 'l' and 'Q' is a point on 'm' s.t $\overleftrightarrow{PQ} \perp l$ and $\overleftrightarrow{PQ} \perp m$ then $\overline{PQ}$ is called Shortest distance and $\overleftrightarrow{PQ}$ is called shortest distance line b/w the lines 'l' and 'm'.
- The S.D. between the skew lines $\bar{r} = \bar{a} + t\cdot\bar{b}$ and $\bar{r} = \bar{c} + s\cdot\bar{d}$ is $\dfrac{|[\bar{a}-\bar{c}\ \ \bar{b}\ \ \bar{d}]|}{|\bar{b}\times\bar{d}|}$.

Examples / Illustrations	Problems in Deepthi Book
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching PLAN

Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

- The eqn of a plane of contact of the external point (x_1, y_1, z_1) w.r.t the sphere $S=0$ is $S_1=0$.

$xx_1 + yy_1 + zz_1 + u(x+x_1) + v(y+y_1) + w(z+z_1) + d = 0$

- Let $S=0$ be the sphere and P be a given point. The locus of the points such that the plane of contact of each point w.r.t sphere $S=0$ passing through P is a plane called polar plane of P w.r.t $S=0$. Point P is called pole of its polar plane.

eqn of the polar plane of the point (x_1, y_1, z_1) w.r.t the sphere $S=0$ is $S_1=0$.

- The pole of the plane $lx+my+nz=p$ $(p \neq 0)$ w.r.t to the sphere $S=0$ is $S_1=0$.
- The pole of the plane $lx+my+nz=p$ $(p \neq 0)$ w.r.t the sphere $x^2+y^2+z^2=a^2$ is $\left(\frac{a^2l}{p}, \frac{a^2m}{p}, \frac{a^2n}{p}\right)$.
- Two points A & B are said to be conjugate points w.r.t $S=0$ if the polar plane of A passes through B.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur
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Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

The general equation of second degree $ax^2+by^2+cz^2+2fyz+2gzx+2hxy+2ux+2vy+2wz+d=0$ represents a cone if

$$\begin{vmatrix} a & h & g & u \\ h & b & f & v \\ g & f & c & w \\ u & v & w & d \end{vmatrix} = 0.$$

The cone $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ have mutually perpendicular generators if $a+b+c=0$.

The plane $lx+my+nz=0$ touches the cone $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ if

$$\begin{vmatrix} a & h & g & l \\ h & b & f & m \\ g & f & c & n \\ l & m & n & 0 \end{vmatrix} = 0.$$

Examples / Illustrations	from Deepthi's Text book.
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Name of the Department / Subject	Mathematics.
Name of the Lecturer	Dr. J. M. PRADEEP.
Course / Group	B. Sc
Paper	~~Spheres~~. SOLID GEOMETRY.
Name of the Topic	Spheres
Hours Required	12.
Learning Objectives	learn about concepts of Sphere, plane section of a Sphere, Tangent, Normal. Co-axial Spheres
Previous Knowledge to be reminded	circle, centre, Radius, Tangent, Normal.

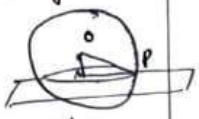
Topic Synopsis: the locus of the points in space which one at a constant distance 'a' from a fixed point 'c' is called a sphere, fixed pant is called centre and constant distance is called Radius of the sphere. If the radius is 1 unit the sphere is called unit sphere. If the radius is '0' it is called point sphere.

General equ of the sphere with centre (x_1, y_1, z_1) and radius 'r' is $(x-x_1)^2+(y-y_1)^2+(z-z_1)^2=r^2$.

If $u^2+v^2+w^2-d \geq 0$. then the equ $x^2+y^2+z^2+2ux+2vy+2wz+d=0$ with centre $(-u,-v,-w)$ and radius $\sqrt{u^2+v^2+w^2-d}$.

Standard equation of the sphere $x^2+y^2+z^2=a^2$.

- Equ of the sphere on the join of $A(x_1, y_1, z_1)$; $B(x_2, y_2, z_2)$ as ends of diameter is $(x-x_1)(x-x_2)+(y-y_1)(y-y_2)+(z-z_1)(z-z_2)=0$
- the plane section of a sphere is a circle $OM^2+MP^2=OP^2$.
- centre of the plane section is M' and radius $MP=\sqrt{OP^2-OM^2}$.



- If the plane passes through the centre of the sphere then the plane section of the sphere is called Great circle.

Examples / Illustrations	from Deepthi Text book.
Additional Inputs	
Teaching Aids Used	Black board.
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	

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Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

- The equation of the plane containing line ① and S.D. line is

$$\begin{vmatrix} x-x_1 & y-y_1 & z-z_1 \\ l_1 & m_1 & n_1 \\ m_1n_2-m_2n_1 & n_1l_2-n_2l_1 & l_1m_2-l_2m_1 \end{vmatrix} = 0.$$

- The eqn of the plane containing line ② and S.D. line is

$$\begin{vmatrix} x-x_2 & y-y_2 & z-z_2 \\ l_2 & m_2 & n_2 \\ m_1n_2-m_2n_1 & n_1l_2-n_2l_1 & l_1m_2-l_2m_1 \end{vmatrix} = 0.$$

Problems: 1) Find the S.D. and the eqn of S.D. line b/w the lines $\frac{x}{2} = \frac{y}{-3} = \frac{z}{1}$; $\frac{x-2}{3} = \frac{y-1}{-5} = \frac{z+2}{2}$

2) Find the S.D. b/w the lines $\frac{x-3}{3} = \frac{y-8}{1} = \frac{z-3}{1}$; $\frac{x+3}{-3} = \frac{y+7}{2} = \frac{z-6}{4}$. Also find the point in which the line meets the given lines.

3) Find the S.D. and eqn of S.D. line b/w the lines $\frac{x}{4} = \frac{y+1}{3} = \frac{z-2}{2}$; $3x-2y+3z+$
$= x-3y+$

Examples / Illustrations	Problems in Deepthi Book
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur
Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics.
Name of the Lecturer	Dr. J. M. PRADEEP.
Course / Group	B.Sc
Paper	SOLID GEOMETRY
Name of the Topic	LINES
Hours Required	12
Learning Objectives	Students would learn to solve the problems on lines, Co-planer lines, Skew lines and S.D b/w.
Previous Knowledge to be reminded	

Topic Synopsis:

General Equation of a line $a_1x+b_1y+c_1z+d_1=0 = a_2x+b_2y+c_2z+d_2$

Parametric form of a line $x = x_1+sl$; $y = y_1+sm$; $z = z_1+sn$.

Symmetric form of a line $\frac{x-x_1}{l} = \frac{y-y_1}{m} = \frac{z-z_1}{n} = s$ (say).

equation of a line passing through (x_1, y_1, z_1) and having d.r's (a, b, c) are $\frac{x-x_1}{a} = \frac{y-y_1}{b} = \frac{z-z_1}{c}$.

Problems:

1) find the foot of the ⊥dr from $(2,-2,3)$ to the plane $2x-y-2z-9=0$.

2) find the foot of the ⊥dr and ⊥r distance from $(4,0,-3)$ to the line $\frac{x-3}{2} = \frac{y+1}{-3} = \frac{z-5}{2}$.

3) find the image of the point $(2,-1,3)$ in the plane $3x-2y+z=9$.

4) find the image of the line $\frac{x-1}{2} = \frac{y}{-1} = \frac{z+2}{2}$ in the plane $2x+y-3z-4=0$

5) find in symmetric form the equations of the line $2x+4y-z-6=0 = 2x+3y-z-8$.

Examples / Illustrations	Examples from Deepthi Text book.
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur
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Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

- The line $\frac{x-x_1}{l} = \frac{y-y_1}{m} = \frac{z-z_1}{n}$ is parallel to $ax+by+cz+d=0$

$\Leftrightarrow al+bm+cn=0$

- The line $\frac{x-x_1}{l} = \frac{y-y_1}{m} = \frac{z-z_1}{n}$ is l'l to $ax+by+cz+d=0 \Leftrightarrow \frac{a}{l}=\frac{b}{m}=\frac{c}{n}$.
- The line $\frac{x-x_1}{l} = \frac{y-y_1}{m} = \frac{z-z_1}{n}$ lies in the plane $ax+by+cz+d=0 \Leftrightarrow$

$ax_1+by_1+cz_1+d=0$; $al+bm+cn=0$.

Problems: 1) eqn of the plane containing the line $\frac{x-1}{2} = \frac{y+1}{-1} = \frac{z-3}{4}$ and l'l to $x+2y+z-12=0$.

2) Eqn of the plane through the points $(2,-1,0)$ $(3,-4,5)$ and Parallel to the line $3x=2y=z$.

- Two lines are coplanar if they lie in the same plane

$\frac{x-x_1}{l_1} = \frac{y-y_1}{m_1} = \frac{z-z_1}{n_1}$ and $\frac{x-x_2}{l_2} = \frac{y-y_2}{m_2} = \frac{z-z_2}{n_2}$ are coplanar if.

$$\begin{vmatrix} x_1-x_2 & y_2-y_1 & z_2-z_1 \\ l_1 & m_1 & n_1 \\ l_2 & m_2 & n_2 \end{vmatrix} = 0.$$

Examples / Illustrations	Problems in Deepthi Book
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

- If the angle b/w one of the given planes and one of the angle bisector is less than $\pi/4$, then the angle bisector is acute angle bisector and the other is obtuse angle bisector
- The equation $ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ represents a pair of planes passing through the origin iff $abc+2fgh-af^2-bg^2-ch^2=0$ $f^2\geq bc$; $g^2\geq ac$; $h^2\geq ab$.
- $H\equiv ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ represents a pair of parallel planes iff $a+b+c=0$
  represents coincident planes iff $f^2=bc$; $g^2=ac$; $h^2=ab$.
- The D.r's of the line of intersection of the planes represented by $H\equiv ax^2+by^2+cz^2+2fyz+2gzx+2hxy=0$ are $\sqrt{f^2-bc}$; $\sqrt{g^2-ac}$; $\sqrt{h^2-ab}$.

Examples / Illustrations	Problems in Deepthi Book
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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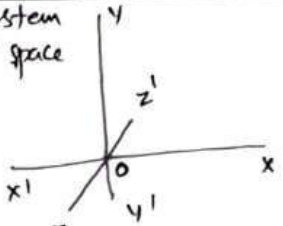
Andhra Christian College, Guntur
Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics.
Name of the Lecturer	Dr. J M. PRADEEP.
Course / Group	B.Sc (MPC & Comp.Sc)
Paper	II - SOLID GEOMETRY.
Name of the Topic	Planes
Hours Required	15
Learning Objectives	Students learn about different Types of Planes, D/W Tems. Angle b/w them.
Previous Knowledge to be reminded	2D Geometry, D.C's & Dr's

Topic Synopsis: Three Dimensional co-ordinate system Rectangular co-ordinate system divides the space into 8 parts called octants.

Direction cosines and Direction Ratios



D.C's: If a ray makes angles α, β, γ with the direction of co-ordinate axes then $\cos\alpha, \cos\beta, \cos\gamma$ are called d.c's they are denoted by l, m, n

d.r's are denoted by (a, b, c).

- A surface is called a plane surface or a plane if all the points of a straight line joining any two points on the surface lie on it.
- General equation of the plane is $ax+by+cz+d=0$ where a, b, c are d.r's of the normal to the plane.
- Normal form of the plane is $lx+my+nz=p$. where l, m, n are d.c's of the normal and 'p' is the distance from origin to the plane.
- Its distance from (x_1, y_1, z_1) to the plane $ax+by+cz+d=0$ is $\frac{|ax_1+by_1+cz_1+d|}{\sqrt{a^2+b^2+c^2}}$.
- Intercept form $\frac{x}{a}+\frac{y}{b}+\frac{z}{c}=1$.

Examples / Illustrations	from Deepthi Textbook
Additional Inputs	
Teaching Aids Used	Black Board
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	

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Proforma for Teaching PLAN

Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

Angle b/w two planes $a_1x+b_1y+c_1z+d_1=0$ & $a_2x+b_2y+c_2z+d_2=0$

$$\cos\theta = \frac{a_1a_2+b_1b_2+c_1c_2}{\sqrt{a_1^2+b_1^2+c_1^2}\cdot\sqrt{a_2^2+b_2^2+c_2^2}}.$$

- The distance b/w two parallel planes $ax+by+cz+d_1=0$ & $a_2x+b_2y+c_2z+d_2=0$ is $\left|\frac{d_1-d_2}{\sqrt{a^2+b^2+c^2}}\right|$.
- The Ratio in which the plane $\pi = ax+by+cz+d=0$ divides the line segment joining $A(x_1,y_1,z_1)$ $B(x_2,y_2,z_2)$ is $-\pi_{111} : \pi_{222}$.

Problems on above Topics.

- The equation of any plane passing through the line of intersection of the planes $\pi_1=0$, $\pi_2=0$ is $\pi_1+\lambda\cdot\pi_2=0$; 'λ' is a parameter.
- The equations of the planes bisecting the angles b/w the planes $a_1x+b_1y+c_1z+d_1=0$; $a_2x+b_2y+c_2z+d_2=0$ are

$$\frac{a_1x+b_1y+c_1z+d_1}{\sqrt{a_1^2+b_1^2+c_1^2}} \pm \frac{a_2x+b_2y+c_2z+d_2}{\sqrt{a_2^2+b_2^2+c_2^2}} = 0.$$

Examples / Illustrations	Deeptii Text book
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Andhra Christian College, Guntur
Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics
Name of the Lecturer	Dr. T.M. PRADEEP.
Course / Group	B.Sc
Paper	I,
Name of the Topic	Differential Equations
Hours Required	12
Learning Objectives	Students would learn the concept of orthogonal trajectories.
Previous Knowledge to be reminded	Differentiation, Integration polar Co-ordinates.

Topic Synopsis:

Orthogonal Trajectories: Cartesian Co-ordinates:

The given equation is $f(x, y, c) = 0$.

* $f\left(x, y, \frac{dy}{dx}\right) = 0$ is the differential eq'n of the given equation.
* Eliminate 'c' from the given family of curves $f(x, y, c) = 0$.
* Replace $\frac{dy}{dx}$ by $-\frac{dx}{dy}$ in $f\left(x, y, \frac{dy}{dx}\right) = 0$ of the family of orthogonal trajectories
* Solve the diff. eq'n $f\left(x, y, -\frac{dx}{dy}\right) = 0$ to get the required family of orthogonal trajectories.

Examples / Illustrations	From Deepthi Text-book.
Additional Inputs	
Teaching Aids Used	Black board & chalk.
References Cited	
Student Activity Planned after the teaching	Home work given.
Any other activity	

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Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics
Name of the Lecturer	Dr. T. M. PRADEEP.
Course / Group	B.Sc
Paper	I, Differential Equations.
Name of the Topic	Linear D.E's of first order.
Hours Required	
Learning Objectives	To learn the concept of L.D.E.
Previous Knowledge to be reminded	order and Degree of D.E.

Topic Synopsis:

* Linear Differential Equation of first order

$\frac{dy}{dx} + P \cdot y = Q$, where 'P' and 'Q' are functions of 'x' only

I.F. $e^{\int P\,dx}$. Solution is given by $y(I.F) = \int Q(I.F)\,dx + c$

$\frac{dx}{dy} + P \cdot x = Q$, where 'P' and 'Q' are functions of 'y' only.

I.F. $e^{\int P\,dy}$. Solution is given by $x(I.F) = \int Q(I.F)\,dy + c$

Bernoulli's equation: $\frac{dy}{dx} + P \cdot y = Q \cdot y^n$, where 'P' and 'Q' are functions of 'x' only.

Solution is given by dividing eqn with y^n and putting $y^{1-n} = v$ so that $y^{-n} \cdot \frac{dy}{dx} = \frac{1}{1-n}\frac{dv}{dx}$ and

Converting into Linear D.E. of the form $\frac{dv}{dx} + P'v = Q$.

Examples / Illustrations	Deepthi Text book.
Additional Inputs	
Teaching Aids Used	Black Board and chalk.
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	Assignments.

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Andhra Christian College, Guntur Proforma for Teaching PLAN	
Name of the Department / Subject	Mathematics.
Name of the Lecturer	Dr. J.M. PRADEEP.
Course / Group	B.Sc. (M.P.C) & M.P.Cs.
Paper	I.
Name of the Topic	Differential Equations.
Hours Required	12.
Learning Objectives	Students would learn the concept of Non-exact D.E's and solutions.
Previous Knowledge to be reminded	Exact D.E.

Topic Synopsis:

* Non- exact D.E's (Equations Reducible to exact)

Integrating factors:

1) Inspection Method. (2) Integrating factor of the form $\frac{1}{Mx+Ny}$, when M, N are homogeneous functions of x and y.

3) Integrating factor of the form $\frac{1}{Mx-Ny}$ when M and N are Non-homogeneous and $M\,dx+N\,dy=0$ is of the form $f(xy)\,y\,dx + f(xy)\,x\,dy = 0$.

4) If $\frac{\frac{\partial M}{\partial y}-\frac{\partial N}{\partial x}}{N} = f(x)$, where f(x) is a function of 'x' only then I.F. is $e^{\int f(x)\,dx}$.

5) If $\frac{\frac{\partial N}{\partial x}-\frac{\partial M}{\partial y}}{M} = g(y)$, where g(y) is a function of 'y' only.

then I.F is $e^{\int f(y)\,dy}$.

Examples / Illustrations	Deepthi Text book.
Additional Inputs	
Teaching Aids Used	Black Board and Chalk.
References Cited	
Student Activity Planned after the teaching	Home work.
Any other activity	Assignment & Seminar.

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Andhra Christian College, Guntur
Proforma for Teaching PLAN

Name of the Department / Subject	Mathematics
Name of the Lecturer	Dr. J. M. PRADEEP.
Course / Group	B.Sc
Paper	I, Differential Equations
Name of the Topic	First order and first Degree D.E's
Hours Required	12
Learning Objectives	Students would learn the concepts of exact, non-exact, D.E's Bernoulli's eqn
Previous Knowledge to be reminded	Bridge course and D.E's of first order.

Topic Synopsis:

* During Bridge Course Students were made to recollect the formulae of Trigonometry, differentiation and Integration.
* Definition of Differential equation and examples
* Types of Differential equations: Ordinary differential equations and partial differential eqns with examples.
* Order and Degree of a differential equation with examples.
* Solving the differential equations by
(i) Variable Separable (ii) Homogeneous and Non-Homogeneous.
* Exact Differential equation:
The Necessary and Sufficient cond'n for the diffential eqn of $Mdx+Ndy=0$ to be exact is $\frac{\partial M}{\partial y}=\frac{\partial N}{\partial x}$. Solution is given by $V=\int M dx$. $\varphi(y)=N-\frac{\partial V}{\partial y}$ (or) $\int_{y\,cst} M dx + \int$ (terms of N not containing x) $dy = c$.

Examples / Illustrations	from Deepthi Textbook.
Additional Inputs	-
Teaching Aids Used	Black board and Chalks.
References Cited	-
Student Activity Planned after the teaching	Home work. given.
Any other activity	Assignments.

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Andhra Christian College, Guntur

Teaching Plan

Name of the Department / Subject	Mathematics / Abstract Algebra
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	III
Name of the Topic	Permutations and Cyclic groups
Hours Required	14
Learning Objectives	Define the concept of permutation, inverse of a permutation, cyclic permutation, transposition, cyclic group and comprehend and analyze the properties of permutations and cyclic group.
Previous Knowledge to be reminded	Definition and examples of group, subgroups, normal subgroup and quotient group and their properties.

Topic Synopsis:

A permutation group is a mathematical concept in group theory where elements are permutations (rearrangements) of a finite set. The group operation is composition of permutations. Symmetric groups S_n are fundamental examples, comprising all permutations of n elements. Generators, cycle notation, and group actions play key roles. Permutation groups find applications in combinatorics, cryptography, and symmetry analysis. They provide a versatile framework for understanding symmetrical structures and arrangements.

Transpositions and Generators: Transpositions, which interchange two elements while leaving others fixed, often generate permutation groups. A permutation group can be generated by a set of permutations that, through composition, generate all permutations in the group.

Cycles and Cycle Notation: Permutations can be expressed using cycle notation, representing the cyclic rearrangements of elements. Cycles play a crucial role in understanding and describing permutations efficiently.

Cyclic Groups: A cyclic group is a mathematical concept in group theory where elements are generated by a single element, called a generator, through repeated application of the group operation. The order of the generator determines the size of the group. Cyclic groups play a fundamental role in abstract algebra, and their properties are extensively studied.

Example: Let's consider the group Z_4, which is the cyclic group of order 4. The elements of this group are {0,1,2,3}, and the group operation is addition modulo 4. We have Z_4={0,1,2,3}. Let's take the element 1 in Z_4. If we repeatedly apply the group operation (addition modulo 4), we get: 1,2,3,0,1,2,3,0,...

The group cycles through all its elements, and 1 generates the entire group. Therefore, Z_4 is a cyclic group of order 4 generated by the element 1.

Examples / Illustrations	G= {1, -1} is a multiplicative group which is cylic generated by -1.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of Mathematics for B. A./B.Sc. by BVSS Sarma and others, S. Chand & Company, New Delhi Modern Algebra by M. L. Khanna
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Abstract Algebra
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	III
Name of the Topic	Permutations and Cyclic groups
Hours Required	14
Learning Objectives	Define the concept of permutation, inverse of a permutation, cyclic permutation, transposition, cyclic group and comprehend and analyze the properties of permutations and cyclic group.
Previous Knowledge to be reminded	Definition and examples of group, subgroups, normal subgroup and quotient group and their properties.

Topic Synopsis:

A permutation group is a mathematical concept in group theory where elements are permutations (rearrangements) of a finite set. The group operation is composition of permutations. Symmetric groups S_n are fundamental examples, comprising all permutations of n elements. Generators, cycle notation, and group actions play key roles. Permutation groups find applications in combinatorics, cryptography, and symmetry analysis. They provide a versatile framework for understanding symmetrical structures and arrangements.

Transpositions and Generators: Transpositions, which interchange two elements while leaving others fixed, often generate permutation groups. A permutation group can be generated by a set of permutations that, through composition, generate all permutations in the group.

Cycles and Cycle Notation: Permutations can be expressed using cycle notation, representing the cyclic rearrangements of elements. Cycles play a crucial role in understanding and describing permutations efficiently.

Cyclic Groups: A cyclic group is a mathematical concept in group theory where elements are generated by a single element, called a generator, through repeated application of the group operation. The order of the generator determines the size of the group. Cyclic groups play a fundamental role in abstract algebra, and their properties are extensively studied.

Example: Let's consider the group Z_4, which is the cyclic group of order 4. The elements of this group are {0,1,2,3}, and the group operation is addition modulo 4. We have Z_4={0,1,2,3}. Let's take the element 1 in Z_4. If we repeatedly apply the group operation (addition modulo 4), we get: 1,2,3,0,1,2,3,0,...

The group cycles through all its elements, and 1 generates the entire group. Therefore, Z_4 is a cyclic group of order 4 generated by the element 1.

Examples / Illustrations	G= {1, -1} is a multiplicative group which is cylic generated by -1.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of Mathematics for B. A./B.Sc. by BVSS Sarma and others, S. Chand & Company, New Delhi Modern Algebra by M. L. Khanna
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Abstract Algebra
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	III
Name of the Topic	Homomorphism of groups
Hours Required	10
Learning Objectives	Define the concept of a group homomorphism, kernel, image, isomorphism and comprehend and analyze the properties of homomorphisms.
Previous Knowledge to be reminded	Definition and examples of group, subgroups, normal subgroup and quotient group and their properties.

Topic Synopsis:

Introduction: Group homomorphisms are fundamental concepts in group theory, a branch of abstract algebra. A group homomorphism is a mapping between two groups that preserves the group structure. Understanding these mappings provides insights into the relationships and structures within groups.

Definition: A group homomorphism $\phi : G \rightarrow H$ between two groups G and H is a function that preserves the group operation, meaning for all elements a,b in G, $\phi(ab)=\phi(a)\phi(b)$.

Basic Properties: Homomorphisms exhibit key properties such as preserving the identity element and inverses. For any group element a in G, $\phi(eG)=eH$ and $\phi(a^{-1})=(\phi(a))^{-1}$.

Kernel and Image: The kernel of a homomorphism ϕ is the set of elements in G that map to the identity element in H. The image is the set of elements in H that have preimages in G. These concepts are vital in understanding the structure of groups through homomorphisms.

Isomorphisms: An isomorphism is a bijective homomorphism, implying a one-to-one correspondence between elements of G and H. Isomorphic groups share the same structural properties, providing a powerful tool for understanding group structures.

Quotient Groups: Homomorphisms are used to define quotient groups. The kernel of a homomorphism plays a crucial role in forming cosets, leading to the construction of quotient groups.

Applications: Group homomorphisms find applications in various mathematical disciplines, including linear algebra, cryptography, and topology. They facilitate the study of group structures and symmetries in diverse contexts.

Conclusion: The study of group homomorphisms provides a deep understanding of the relationships between groups and aids in classifying and analyzing their structures. This concept is foundational in abstract algebra, paving the way for advanced mathematical explorations and applications in diverse fields.

Examples / Illustrations	Define a function $\phi : Z \rightarrow R^+$ as $\phi(n)=2^n \forall n \in Z$ is a homomorphism.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of Mathematics for B. A./B.Sc. by BVSS Sarma and others, S. Chand & Company, New Delhi Modern Algebra by M. L. Khanna
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Abstract Algebra
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	III
Name of the Topic	Normal subgroups
Hours Required	12
Learning Objectives	Comprehend and analyze the abstract algebraic structures known as normal subgroups, proper and improper normal subgroups, quotient groups.
Previous Knowledge to be reminded	Definition and examples of group, subgroups and their properties.

Topic Synopsis:

Normal Subgroups: Normal subgroups are a specific type of subgroup within a group that possesses a key property: under the group operation, conjugation by any element of the group leaves the subgroup invariant. In simpler terms, if N is a normal subgroup of group G, then for any g in G, $gNg^{-1}=NgNg^{-1}=N$. Normal subgroups play a crucial role in defining quotient groups.

A subgroup N of a group G is a normal subgroup if and only if, for every element g in G, the left and right cosets of N in G coincide. Mathematically, this can be expressed as gN=Ng.

In other words, for every g in G, the left coset gN is the same as the right coset Ng. This condition is often denoted as N being invariant under conjugation by elements of G.

This condition ensures that the left and right cosets behave consistently, allowing for the well-defined construction of quotient groups, and it is a fundamental concept in group theory.

Quotient Groups: Quotient groups, also known as factor groups, are constructed by partitioning a group with respect to a normal subgroup. The elements of the quotient group correspond to the cosets of the normal subgroup, and the group operation is defined naturally on these cosets. Quotient groups provide a way to study the structure of a group modulo certain elements, often simplifying complex group structures into more manageable forms. The cosets in the quotient group inherit the group operation from the original group, and this construction is fundamental in abstract algebra and group theory.

Examples / Illustrations	The subgroups {1,−1} and {1,i,−1,−i} are normal subgroups.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of Mathematics for B. A./B.Sc. by BVSS Sarma and others, S. Chand & Company, New Delhi Modern Algebra by M. L. Khanna
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Abstract Algebra
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	III
Name of the Topic	Groups
Hours Required	10
Learning Objectives	Comprehend and analyze the abstract algebraic structures known as groups, understanding their properties, symmetries, and applications in diverse mathematical contexts.
Previous Knowledge to be reminded	Familiarity with algebraic structures such as sets, operations, and properties of numbers, as group theory builds on these foundational algebraic concepts.

Topic Synopsis:

Group Theory is a branch of abstract algebra that studies the algebraic structures known as groups. A group is a set equipped with an operation that satisfies four fundamental properties: closure, associativity, identity element existence, and invertibility. Group Theory explores the properties, classifications, and applications of groups, providing a powerful framework for understanding symmetry, patterns, and transformations in diverse mathematical and scientific contexts.

Group Definition:

- A group consists of a set G and an operation * such that for any elements a, b in G, the operation produces another element in G (closure).
- The operation is associative, and there exists an identity element (e) such that a * e = e * a = a for all a in G.
- Every element has an inverse, denoted as a^{-1}, such that $a \cdot a^{-1} = a^{-1} \cdot a = e$.

Group Properties:

- Groups can be finite or infinite, and their order is the number of elements in the group.
- Subgroups are subsets of a group that form groups themselves.
- Group homomorphisms and isomorphisms preserve the group structure between two groups.

Group Classification:

- Different types of groups include cyclic groups, permutation groups, and symmetric groups.
- Classification of finite groups is achieved through the fundamental theorem of finite abelian groups.

Examples / Illustrations	(Z, +), (Q*, .) are examples of a Group.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of Mathematics for B. A./B.Sc. by BVSS Sarma and others, S. Chand & Company, New Delhi Modern Algebra by M. L. Khanna
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Abstract Algebra
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	III
Name of the Topic	Subgroups
Hours Required	14
Learning Objectives	Comprehend and analyze the abstract algebraic structures known as subgroups, cosets, understanding their properties & proving Lagrange's theorem.
Previous Knowledge to be reminded	Definition of Group, examples of group and group properties.

Topic Synopsis:

Subgroup: A subgroup in abstract algebra is a subset of a group that forms a group itself under the same group operation. It maintains closure, contains the identity element, and includes the inverses of its elements. Subgroups play a crucial role in understanding the internal structure of a group and are fundamental in exploring group properties and classifications.

Product of Two Subgroups: The product of two subgroups H and K in a group G is the set of all possible products of elements where one element is from H and the other from K. Symbolically, $HK=\{hk|h\in H, k\in K\}$.

Union and Intersection of Two Subgroups:

- **Union ($H\cup K$):** The union of two subgroups H and K of a group G is a subgroup if one is contained in the other.
- **Intersection ($H\cap K$):** The intersection of two subgroups H and K of a group G is a subgroup.

Lagrange's Theorem: Lagrange's Theorem states that in a finite group, the order of any subgroup divides the order of the parent group. It provides a powerful tool for analyzing the structure of groups by establishing a relationship between the sizes of subgroups and the overall group. The theorem has applications in group theory and is fundamental for understanding the decomposition of groups into cosets and the classification of finite groups.

Examples / Illustrations	(Z, +) is a subgroup of (Q, +), (Q, +) is a subgroup of (R, +).
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of Mathematics for B. A./B.Sc. by BVSS Sarma and others, S. Chand & Company, New Delhi Modern Algebra by M. L. Khanna
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Real Analysis
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	IV
Name of the Topic	Riemann Integration
Hours Required	12
Learning Objectives	Define Riemann integral, Riemann integral function, understand the necessary and sufficient condition for R- integrability and comprehend properties of integrable functions, fundamental theorem of integral calculus and Mean value theorems.
Previous Knowledge to be reminded	Closed and open intervals, limit, continuity and differentiability of a function.

Topic Synopsis:

Riemann integration is a fundamental concept in calculus that provides a rigorous method for defining and calculating the definite integral of a real-valued function over a closed and bounded interval. The key components and concepts associated with Riemann integration include:

1. **Riemann Integral:**
   The Riemann integral is the limit of Riemann sums as the maximum width of subintervals approaches zero. If this limit exists, the function is said to be Riemann integrable over the interval.
2. **Upper and Lower Riemann Integrals:**
   The upper Riemann sum is the sum of the products of the function values and the widths of subintervals, where the function values are chosen to be the maximum in each subinterval. The lower Riemann sum is similarly defined using the minimum function values.
3. **Conditions for Riemann Integrability:**
   A function is Riemann integrable over an interval if and only if it is bounded on that interval and the set of points of discontinuity has zero measure (i.e., the function is continuous almost everywhere).
4. **Fundamental Theorem of Calculus:**
   The Fundamental Theorem of Calculus establishes a connection between differentiation and integration. If $F(x)$ is an antiderivative of $f(x)$, then $\int_a^b f(x)dx = F(b) - F(a)$.

Riemann integration provides a precise way to calculate the area under a curve and has broad applications in calculus, physics, engineering, and various scientific fields. It lays the foundation for more advanced concepts, such as improper integrals and Lebesgue integration.

Examples / Illustrations	Let $f(x) = 2x$ over the interval $[0,3]$. Then the Riemann integral of $2x$ over $[0,3]$ is 9.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of B.Sc. Mathematics by BVSS Sarma and others, S. Chand & Company, New Delhi
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Real Analysis
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	IV
Name of the Topic	Infinite Series
Hours Required	12
Learning Objectives	Define an infinite series and its notation, understand the distinction between a series and a sequence, identify conditions for the convergence or divergence of infinite series, explore convergence tests, including the comparison test, ratio test and integral test.
Previous Knowledge to be reminded	Real number system and concept of sequences and their properties.

Topic Synopsis:

An infinite series is the sum of an infinite sequence of terms. Key concepts include convergence and divergence, determined by various tests such as comparison and ratio tests. Geometric series and alternating series are analyzed. The limit comparison test is employed for convergence analysis. Infinite series play a pivotal role in calculus and have broad applications in mathematics, physics, and engineering.

Tests to determine whether a given series is convergent or divergent:

1) p-test : The p-test is commonly used to analyze the convergence of certain infinite series, especially those involving reciprocals of powers of natural numbers.

2) Cauchy's nth root test: Cauchy's nth Root Test is a convergence test used to determine the convergence or divergence of an infinite series by examining the nth roots of its terms. The test is particularly useful for series with positive terms.

3) D-Alemberts' Ratio Test: The D'Alembert's Ratio Test, also known as the Ratio Test, is a convergence test used to determine the convergence or divergence of an infinite series. It involves examining the limit of the ratio of consecutive terms. The test is particularly useful for series with positive terms.

4) Leibnitz Test (Absolute convergence): The Leibniz Test, also known as the Alternating Series Test, is a convergence test specifically designed for alternating series. An alternating series is a series where terms alternate in sign.

Examples / Illustrations	$\sum_{n=0}^{\infty} \frac{1}{2^n}$ is a convergent geometric series with a common ratio less than 1, $\sum_{n=1}^{\infty} \frac{1}{n}$ is a harmonic series which is divergent, even though its terms approach zero.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of B.Sc. Mathematics by BVSS Sarma and others, S. Chand & Company, New Delhi
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Real Analysis
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	IV
Name of the Topic	Real numbers and Sequences
Hours Required	12
Learning Objectives	Define a sequence of real numbers and understand the notation, understand the concept of convergence and divergence of a sequence, limit of a sequence and comprehend their properties.
Previous Knowledge to be reminded	Algebraic and order properties R, real axis and completeness property.

Topic Synopsis:

A real sequence is an ordered list of real numbers denoted as $\{s_n\}$, where each term s_n corresponds to an element at the n-th position. The study of real sequences is a fundamental topic in real analysis, encompassing various concepts and properties:

Definition and Notation:

A function $s: N \rightarrow R$ is called a real sequence and is denoted as $\{s_n\}$ or $\{s_1, s_2, s_3, \ldots\}$.

Convergence and Divergence:

- A sequence is said to converge if its terms approach a specific limit as n tends to infinity.
- Divergence occurs when a sequence does not approach a finite limit.

Limit of a Sequence:

- The limit of a sequence $\{s_n\}$ is denoted as $\lim_{n \to \infty} s_n$.
- Convergence to a limit is defined using the epsilon-delta criteria.

Bounded Sequences:

- A sequence is bounded if its terms do not exceed certain finite values.
- Boundedness is often related to convergence.

Monotonic Sequences:

- A sequence is monotonic if it is either entirely non-increasing or non-decreasing.
- Monotonic sequences exhibit clear convergence or divergence behavior.

Cauchy Sequences:

- A sequence is Cauchy if the terms become arbitrarily close as n increases.
- Cauchy sequences are closely linked to convergence.

Tests for Convergence:

- Various tests, such as the comparison test and ratio test, help determine the convergence of sequences.

Examples / Illustrations	$\{n\}$, $\{1/n\}$, $\{(-1)^n\}$ are examples of sequences.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of B.Sc. Mathematics by BVSS Sarma and others, S. Chand & Company, New Delhi
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Teaching Plan

Name of the Department / Subject	Mathematics / Real Analysis
Name of the Lecturer	Dr. B. Vijaya Kumar
Course / Group	B. Sc.
Paper	IV
Name of the Topic	Continuity
Hours Required	12
Learning Objectives	Define limit, boundedness of a function, continuous function and uniform continuity and comprehend their properties.
Previous Knowledge to be reminded	Real number system, closed and open intervals and their properties.

Topic Synopsis:

Limit: The limit of a function $f(x)$ as x approaches a specific value, denoted as $\lim_{x \to a} f(x)$, represents the value that $f(x)$ approaches as x gets arbitrarily close to but not equal to a. If the limit exists and equals a finite value, the function approaches a specific value as x gets close to a. If the limit approaches positive or negative infinity, the function grows without bound as x approaches a.

Continuous functions: A function $f(x)$ is continuous at a point a if the limit of $f(x)$ as x approaches a exists and equals $f(a)$.

Uniform Continuity: A function is continuous on an interval if it is continuous at every point within that interval.

The continuous function has no abrupt changes or gaps in its graph.

Types of Discontinuity:

1. **Removable Discontinuity:** A hole in the graph that can be filled to make the function continuous.
2. **Jump Discontinuity:** A sudden jump in the graph at a certain point.
3. **Infinite Discontinuity:** The function approaches infinity at a certain point.

Intermediate Value Theorem: If $f(x)$ is continuous on a closed interval $[a, b]$, then $f(x)$ takes every value between $f(a)$ and $f(b)$ for at least one x in $[a, b]$.

Applications: Continuous functions model smooth and predictable behaviors, making them essential in various scientific, engineering, and mathematical applications.

In summary, continuity is a key attribute of functions ensuring smooth and connected behavior, and it is a crucial concept for understanding calculus and mathematical modeling.

Examples / Illustrations	$f(x) = x^2$ is continuous everywhere. $g(x) = \frac{1}{x}$ is continuous on its domain except at $x = 0$.
Additional Inputs	Visual aids, Problem solving
Teaching Aids Used	Black board
References Cited	A text book of B.Sc. Mathematics by BVSS Sarma and others, S. Chand & Company, New Delhi
Student Activity Planned after the teaching	Group discussions, Seminars, Assignment
Any other activity	Facilitating a brief Q&A session after the presentation.

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics, Development Economics
Name of the Lecturer	Dr. N Naveen Mandula
Course / Group	BA, HEP, 3 yr
Paper	3rd paper
Name of the Topic	Basic features of Indian Economy
Hours Required	3 hrs
Learning Objectives	to learn about Indian economy
Previous Knowledge to be reminded	India around them

Topic Synopsis: Basic features of Indian economy.

- low per capita income (real)
- high rate of growth of population.
- the endless loop of poverty.
- agro based economy
- Over population
- inequalities in income
- Deficiencies in capital formation
- poor infrastructural development.
- low rate of percapita income.
- High rate of unemployment.
- obsolete technology.
- Social backwardness.
- slow rate of growth.
- more traditions & customs.
- unity in diversity.
- Different climatic conditions.
- Different political scenario.
- India is a wagering of monsoons.
- corruption.

Examples / Illustrations	India in Villages.
Additional Inputs	India around you.
Teaching Aids Used	Board & chalk, map.
References Cited	'Indian Economy'. M. Dhingra
Student Activity Planned after the teaching	to identify developing economies
Any other activity	prepare classification.

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics, Development Eco
Name of the Lecturer	Dr. N. M. Mandula
Course / Group	BA, II yr, HEP, 3rd paper
Paper	
Name of the Topic	capital & labour intensive industries
Hours Required	2
Learning Objectives	to know the imp of both methods
Previous Knowledge to be reminded	Meaning of capital & labour
Topic Synopsis:	
Capital intensive techniques uses more of capital. Speed & efficiency C.I.T. have scarcity of labour Low price, high price C.I.T is more in developing countries. Highly capitalistic dy C.I.T deal more research & dev C.I.T - less population. more production C.I.T has more growth theories comparative advantage in INT CIT operate under large scale Industries Highly productive CIT have increasing wages. Low cost of CIT have trade Unions strong CIT have short term problems CIT deal with legal related Problems.	L.I.T uses more labour in lieu of capital. less efficient C.I.T. have scarcity of capital. High prices, low prod L.I.T is in developing countries Less quantitative. L.I.T has less R&D less production. LIT is in more populated cities less advantage in INT. LIT has theories that are adopted LIT operates more under cottage, handloom & small scale industries LIT wages are comparatively low Less productive LIT have weak trade Unions. High cost of the LIT have long term problems. LIT deal with more related problems
Examples / Illustrations	India, USA, Industry, Agriculture
Additional Inputs	urban & rural levels
Teaching Aids Used	Board & Chalk
References Cited	Development Economics M Thirlwall
Student Activity Planned after the teaching	to identify methods adopted by
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics, Development Economics
Name of the Lecturer	Dr. N. M. Mandala
Course / Group	II BA, HED,
Paper	3rd paper,
Name of the Topic	Concept of population Dividend.
Hours Required	two
Learning Objectives	To understand the concept of PD
Previous Knowledge to be reminded	Index of population Dividend
Topic Synopsis:	Demographic dividend as economic growth brought on by a change in the structure of a country's population, usually a result of a fall in fertility & mortality rates. The demographic dividend comes as there is an increase in the working population productivity, which leads per capita income. Demographic dividend as Education when a country has the potential for tremendous economic growth due to the change in the population. Demographic dividend is the economic growth potential that can result from shifts in the population's age structure mainly when the share of the working age population (15 to 64) is larger than the non-working age share of the population. (14 and younger & 64 and older) Demographic dividend occurs when the proportion of working people in the total population is high because this indicates that more people have the potential to be productive and contribute to the growth of the economy.
Examples / Illustrations	Indian population.
Additional Inputs	working population, dependent
Teaching Aids Used	Board & chalk, maps.
References Cited	Economic Development - M.L. Jhingan
Student Activity Planned after the teaching	To identify highly populated states
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics, Development Economics
Name of the Lecturer	Dr. N Mrs. Ila Mandula
Course / Group	BA, HEP,
Paper	3rd paper
Name of the Topic	Important Demographic features
Hours Required	One (1)
Learning Objectives	to learn about population in India
Previous Knowledge to be reminded	Idea about population in India

Topic Synopsis:

Variables within a nations population, such as age, gender, income level, marital status, ethnic & religion and education level. Demographic characteristics are commonly used as a basis for market segmentation.

A population is defined as a group of individuals of the same species living and interbreeding within the given area. Members of a population often rely on the same resources, are subject to similar environmental constraints, and depend on the availability of other members to persist over time.

Demographics can include any statistical factors that influence population growth or decline, but several variables are particularly important. Populations.

The demographic profile of India is a dynamic mosaic, reflecting a myriad of trends. This comprehensive exploration delves into the intricate demographic structures. Historical population,

Examples / Illustrations	Populated Countries.
Additional Inputs	
Teaching Aids Used	Chalk & Board, Maps of populated countries
References Cited	Development Economics, M.L. Thingan
Student Activity Planned after the teaching	to locate populated Countries
Any other activity	Idea about population.

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Proforma for Teaching Synopsis

Name of the Department / Subject	Economics, Development Economics
Name of the Lecturer	Dr. N Pavitra Mounika
Course / Group	II BA, HEP
Paper	3rd paper
Name of the Topic	Population policy
Hours Required	2 hours
Learning Objectives	To understand population policy
Previous Knowledge to be reminded	Ideas on population policy

Topic Synopsis: A population policy is a set of measures taken by the state to modify the way its population is changing, either by promoting large families or through immigration.

India has the largest population in the world, with a current population of about 1.3 billion population growth - which continues to be a key government agenda

National population policy 2000:- The National population policy (NPP), 2000 is the central government's second population policy. The NPP addresses the immediate objective addressing the unmet needs for contraception, healthcare infrastructure, and health personnel and providing integrated service delivery for basic reproductive and child healthcare

The medium-term objective of the NPP 2000 was to reduce the Total Fertility Rate (TFR) to 2.1 replacement levels by 2010 - the TFR soon to be 2.1 children per woman

Examples / Illustrations	Examples of other population policies
Additional Inputs	India in 2000, 2010
Teaching Aids Used	Board & chalk, Map.
References Cited	Development Economics by Thirlwall
Student Activity Planned after the teaching	To assess Indian population policy
Any other activity	

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(Day, Evening, & P.G.)

LESSON PLAN

Name of the Lecturer : Ch. Anita Name of the Department English

I^st B.Com I^st SEM GENERAL ENGLISH

Name of the Topic : Communication Skills – Listening

Hours required : 12

Learning objectives : To learn the importance of listening the barriers of listening and to learn the principles of effective listening and learning the four factors of Communication - listening speaking, reading and writing.

Previous knowledge to be remined

Topic Synopsis : Listening is the ability to accurately receive and interpret messages in effective the Communication process. It is key to all Communication process. passive listening, Marginal listening, projective listening, Sensitive listening Active listening. The 3 stages in the process of listening are

1) Levelling / sensing / Receiving
2) Sharpening / understanding

Assimilation/understanding

The factors which assist listening

knowledge of the language

Motivation and interest

the context / the subject / the accent

principles of listening:

a) Stop talking b) prepare yourself to listen c) put the speaker at ease d) Remove distractions e) Empathize f) Be patient g) listen to the tone.

Barriers to effective listening

a) Trying to listen to more than one conversation at a time b) Not interested feeling tired, pre-occupation

Examples / Illustrations :

Additional Inputs : Charts

Teaching Aids Used : Computer system, CD's etc

References cited :

Student Activity planned after teaching : Listening exercises and answering the questions over system

Activity planned outside the Class Room, if any :

Any other activity :

Andhra Christian College, Guntur.

(Day, Evening, & P.G.)

LESSON PLAN

Name of the Lecturer : Ch. Anita ..... Name of the Department English .....

Name of the Topic : Phonetics

Hours required : 12

Learning objectives : To learn the sound system of English, the symbols of Consonant sound and vowel sounds, word accent To use the language perfectly with Collect pronunciation and Intonation.

Previous knowledge to be remined

To refer to the past knowledge of the and the importance of Communication

Topic Synopsis :

Andhra Christian College, Guntur.

(Day, Evening, & P.G.)

LESSON PLAN

Name of the Lecturer : Ch. Anita ..... Name of the Department English .....

Name of the Topic : Phonetics

Hours required : 12

Learning objectives : To learn the sound system of English, the symbols of Consonant sound and vowel sounds, word accent To use the language perfectly with Correct pronunciation and Intonation.

Previous knowledge to be remined

To refer to the past knowledge of the and the importance of Communication

Topic Synopsis :

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(Day, Evening, & P.G.)

LESSON PLAN

Name of the Lecturer : Ch. Anita ..... Name of the Department ... English .....

Name of the Topic : General Grammar

Hours required : 24

Learning objectives : Use grammar effectively in writing and speaking, Demonstrate the use of Good vocabulary, understand and demonstrate writing skills, Acquire ability to use soft skills, Confidently use the tools of communicatin

Previous knowledge to be remined

previous knowledge of grammar

Topic Synopsis :

Modals: do (To make simple Tenses, and questions and be (To make Continuous Tenses, and the passive voice have (To make perfect Tenses)

be able to - ability

would - polite request, preference, repeated action in the past

used to - Repeated action in the past

shall - polite

Tense and time:
A present tense does not always refer to present time
A past tense does not always refer to present time
A past tense does not always refer to present time
A past tense does not always refer to past time.

Articles: use of a, an, the
a, an - indefinite articles
the - definite article.

Prepositions It is a word used before a noun or pronoun. It shows the relation by noun but noun by a verb of, in, to, till, at, by, for, from, old, out, with etc.

Question Tags A Confirmation

You are coming. Aren't you?

Examples / Illustrations :

Give me the red book
Give me a red book
Give me an orange.

Additional Inputs :

Charts

Teaching Aids Used :

Board, Chalk

References cited :

Student Activity planned after teaching :

Practising the grammar exercises

Activity planned outside the Class Room, if any :

Any other activity :

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA.
Course / Group	II BSC, 3 sem (I,T)
Paper	II
Name of the Topic	Tryst with Destiny
Hours Required	4
Learning Objectives	freedom, prosperity, disaster in this one world
Previous Knowledge to be reminded	

Topic Synopsis:

Nehru feels that all indians should work hard for the development of their dear nation. Doing Service to India means doing Service to million of poor people who suffer all over the country. Those dreams are not only for India but for the Entire world. India has to grow into a mature and wise nation and be a model to other nations. A sense of pride, unity and optimism grips the readers.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text BOOK.
Student Activity Planned after the teaching	Skip text, writing more paragraphs
Any other activity	writing practice

N. Mounika
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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSC, 3 sem (1,7)
Paper	II
Name of the Topic	Descriptions
Hours Required	2
Learning Objectives	describe objects, talk
Previous Knowledge to be reminded	about their size, height, width

Topic Synopsis:

In descriptive writing, you describe a person, place, object, experience, emotion or situation in such a way that a picture is formed in the reader's mind. This is done by using Imaginative language, interesting comparisons, and images that appeal to the senses. We have to describe objects we talk about their size, height, width, weight, colour etc--,

Examples / Illustrations	=
Additional Inputs	
Teaching Aids Used	material
References Cited	text Book
Student Activity Planned after the teaching	skip test-2
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II B.Sc, 3 Sem (1,1)
Paper	II
Name of the Topic	JRD TATA's Interview with J N NANAVATI
Hours Required	3
Learning Objectives	India's biggest conglomerate Company. regarded as the legendary
Previous Knowledge to be reminded	

Topic Synopsis:

Tata in regard to his development as businessman and other points, like comparing past and present situations in bussness, growing bsiness of Dhirubhai Ambani and so on.

In those days congress needed funds and every one gave openly. They both Contributed. He opined that they knew the ethical character people group of community diffr from other

Examples / Illustrations	=
Additional Inputs	=
Teaching Aids Used	Material
References Cited	text Book / News
Student Activity Planned after the teaching	Slip test, writing more paragraphs
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II B.Sc, 3 Sem (1,7)
Paper	II
Name of the Topic	JRD TATA's Interview with J N NANDA
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Tata in regard to his development as businessman and other points, like comparing past and present situations in bussness, growing business of Dhirubhai Ambani and so on.

In those days congress needed funds and every one gave openly. They both Contributed. He opined that they knew the ethical character people group of community differ from other

Examples / Illustrations	-
Additional Inputs	-
Teaching Aids Used	Material
References Cited	Text Book / News
Student Activity Planned after the teaching	Slip test, writing more paragraphs writing practice
Any other activity	

N. M

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA.
Course / Group	II BSC, 3 sem (1,7)
Paper	II
Name of the Topic	Tryst with Destiny
Hours Required	4
Learning Objectives	freedom, prosperity, disaster in this one world
Previous Knowledge to be reminded	

Topic Synopsis:

Nehru feels that all indians should work hard for the development of their dear nation. Doing Service to India means doing Service to million of poor people who suffer all over the country. Those dreams are not only for India but for the Entire world. India has to grow into a mature and wise nation and be a model to other nations. A sense of pride, unity and optimism grips the readers.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	Material
References Cited	text BOOK.
Student Activity Planned after the teaching	Skip text → writing more paragraphs
Any other activity	writing practice

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Andhra Christian College, Guntur
Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSC, 3 sem (1,7)
Paper	II
Name of the Topic	Role Play.
Hours Required	3
Learning Objectives	Thinking ability, develop Sympathetic understanding
Previous Knowledge to be reminded	

Topic Synopsis:

Role play provide Students with the opportunity to take part in activities which mirror career-related scenarios. Role playing Exercises Encourage students to think more critically about complex and controversial subjects and to see situations from a different perspective. When properly employed, role plays can motivate Students in a fun and engaging way.

Examples / Illustrations	–
Additional Inputs	–
Teaching Aids Used	Material
References Cited	text Book
Student Activity Planned after the teaching	Slip tests
Any other activity	Writing practice

N. M

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSC, 3 sem (U)
Paper	II
Name of the Topic	Descriptions
Hours Required	2
Learning Objectives	describe objects, talk
Previous Knowledge to be reminded	about their size, height, width

Topic Synopsis:

In descriptive writing, you describe a person, place, object, experience, emotion or situation in such a way that a picture is formed in the reader's mind. This is done by using Imaginative language, interesting comparisons, and images that appeal to the senses. We have to describe objects we talk about their size, height, width, weight, colour etc--,

Examples / Illustrations	—
Additional Inputs	
Teaching Aids Used	Material
References Cited	Text Book
Student Activity Planned after the teaching	Skip test-2
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSc, 3 Sem (1,7)
Paper	II
Name of the Topic	Introductions
Hours Required	1
Learning Objectives	You must know what you should say about yourself
Previous Knowledge to be reminded	

Topic Synopsis:

Introductions are made by us. When we introduce other people to some strangers, when we meet strangers, we introduce ourselves. When others take us some where, they introduced us to strangers. So introductions are necessary either in informal or personal life and formal or social life. If you're approaching someone you are familiar which, you could make your introduction a bit friendlier.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	Material
References Cited	text Book
Student Activity Planned after the teaching	Slip test,
Any other activity	Writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSC, 3 Sem (1,7)
Paper	II
Name of the Topic	Greetings
Hours Required	2
Learning Objectives	describe places, things, experiences / ask for information
Previous Knowledge to be reminded	

Topic Synopsis:

There are many ways in which you can greet someone using the English language. Depending on whether the situations is formal or informal will depend on what sort of greeting you use. There are so many to choose from that you can truly make your greetings diverse and interesting. It is very important to be able to select an appropriate greeting for every situation.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book
Student Activity Planned after the teaching	Slip tests
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSC, 3 Sem (1,7)
Paper	II
Name of the Topic	Greetings
Hours Required	2
Learning Objectives	describe places, things, experiences / ask for information
Previous Knowledge to be reminded	

Topic Synopsis:

There are many ways in which you can greet someone using the English language. Depending on whether the situations is formal or informal will depend on what sort of greeting you use. There are so many to choose from that you can truly make your greetings diverse and interesting. It is very important to be able to select an appropriate greeting for every situation.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book
Student Activity Planned after the teaching	Slip-tests
Any other activity	writing practice

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Andhra Christian College, Guntur
Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BSC, 3 Sem (1,7)
Paper	II
Name of the Topic	Greetings
Hours Required	2
Learning Objectives	describe places, things, experiences / ask for information
Previous Knowledge to be reminded	

Topic Synopsis:

There are many ways in which you can greet someone using the English language. Depending on whether the situations is formal or informal will depend on what sort of greeting you use. There are so many to choose from that you can truly make your greetings diverse and interesting. It is very important to be able to select an appropriate greeting for every situation.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book
Student Activity Planned after the teaching	Slip-tests
Any other activity	writing practice

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Andhra Christian College, Guntur Proforma for Teaching Synopsis	
Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	I BA (C,D)
Paper	I
Name of the Topic	Coromandal fishers
Hours Required	3
Learning Objectives	Depicts the relationship
Previous Knowledge to be reminded	of fishermen with nature.

Topic Synopsis:

"The Nightingale of India", Sarojini Naidu (1879-1949) was a gifted Indo-Anglian poetess and freedom fighter. In the poem "The Coromandel Fishers" she describes the beauty of nature and the folk culture of the Coromandel Coast of India. It depicts the relationship of fishermen with nature. Nature stands as a symbol of beauty that expresses the optimistic view of life. The coconut tree's shade is sweet. The smell of the mango grove is sweet. The sands at the full moon day is sweet. The voice of the people is sweet. The kiss of the spray means the water comes out of the waves and sprinkles are sweeter. The dance of the wild foam's sound (Song) is also sweeter and the cool Breeze on the sea is considered to be the best and the sweetest.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	Material
References Cited	Text book
Student Activity Planned after the teaching	Chapter
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	I BA (C, D)
Paper	I
Name of the Topic	Upagupta
Hours Required	3
Learning Objectives	An Ascetic was to render Service to humanity
Previous Knowledge to be reminded	

Topic Synopsis:

"Vishwakavi" Rabindranath Tagore (1861–1941) was a poet, dramatist, a short story writer, an educationist and novelist. He was the first Indian who won the Nobel prize for his book "Gitanjali" in 1913. In the poem "UPAGUPTA" Tagore talk about an incident in an ascetic upagupta's life.

He was upagupta. He said that "it was the right time for him to visit her because the duty of an ascetic was to render service to humanity."

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	Material
References Cited	text book
Student Activity Planned after the teaching	Slip test,
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English.
Name of the Lecturer	N. MOUNIKA
Course / Group	I BA (G,D) 3 sem,
Paper	I
Name of the Topic	SWOC
Hours Required	2
Learning Objectives	Examines Strengths, Weakness, and Opportunities
Previous Knowledge to be reminded	

Topic Synopsis:

Swoc analysis is a Strategic planning method used to research external and internal factors which affect company success and growth.

Swoc analysis is relevant to SWOT Analysis. SWOT Examines Strengths, Weaknesses, and Opportunities. But it focuss on threats rather than challenges. The two are similar but they do have their differences which is why firms may choose to use Swoc or SWOT.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book
Student Activity Planned after the teaching	Slip tests
Any other activity	Writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English/English
Name of the Lecturer	N. MOUNIKA
Course / Group	I BA (C,D) 3.Sem
Paper	I
Name of the Topic	MODALS
Hours Required	2
Learning Objectives	Mastering instances, focused on article,
Previous Knowledge to be reminded	

Topic Synopsis:

Modals of ability are the most Common and the most important to master firstly, modals are verbs usually and the ones that I am going to be focused on in this article are can, could, be able to, may, might.

modal verbs often have more than one meaning and can be significant in a variety of ways.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book
Student Activity Planned after the teaching	slip test
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	I BA (C, D) 3 Sem
Paper	3
Name of the Topic	Effective listening
Hours Required	2
Learning Objectives	listening, decoding, interpreting
Previous Knowledge to be reminded	

Topic Synopsis:

Listening means attentiveness and interest perceptible in the postuve as well as expressions. listening implies decoding interpreting the messages correctly in communication process.

1) Discover your interest field.
2) Grasp and understand the matter/content.
3) Remain calm. Do not loose your temper.
4) Be open to accept new ideas and information.

Effective listening gives you an advantages and makes you more impressive when you speak.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book
Student Activity Planned after the teaching	Skipteet
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N MOUNIKA
Course / Group	II BCOM (E) 3 sem
Paper	I
Name of the Topic	Presentation Skills.
Hours Required	2
Learning Objectives	presented papers in seminars
Previous Knowledge to be reminded	

Topic Synopsis:

Presentation skills Include thinking skills, Communication skills and body language, we use them when we present papers in seminars, in training workshops. In viva voce or during presentation of Research project reports. In conferences Student meets, college, functions, large meetings and even in small family gatherings.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	Material
References Cited	text book
Student Activity Planned after the teaching	Slip tests
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N MOONIKA
Course / Group	II BCom (F) Section 3 Sem
Paper	I
Name of the Topic	Word Stress.
Hours Required	2
Learning Objectives	Stressed Syllables, How to pronounce the Syllable
Previous Knowledge to be reminded	

Topic Synopsis:

The word ability is pronounced as ə'bility. The (ˈ) mark on the second syllable "b" shows that the stress must be on the Syllable 'bil'. As English is an accented language, It is important to know on which syllable we have to give the stress. When we know the stressed syllable, we have to pronounce that syllable strongly so that it is uttered differently from the other syllables.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text-book / Internet
Student Activity Planned after the teaching	Slip tests
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II BCom (F) section 3sem
Paper	3
Name of the Topic	Punctuation
Hours Required	2
Learning Objectives	capital letters, colons, semicolons etc..
Previous Knowledge to be reminded	

Topic Synopsis:

Punctuation includes commas, full stops, Question marks, Quotation marks, hyphens, dashes, capital letters, colon, semicolon, Exclamation mark, apostrophe and parenthesis. if you do not use them in your writing the reading text becomes totally unintelligible

1) Question mark (?)
2) Full stop (.)
3) Comma (,)
4) Quotation marks (" ")
5) colon (:)
6) Exclamation (!)
7) Semicolon (;)
8) parenthesis [()]
9) Apostrophy (')
10) Hyphen (-)

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book / internet
Student Activity Planned after the teaching	slip test
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N MOUNIKA
Course / Group	II BCom (F)
Paper	I
Name of the Topic	Syllable
Hours Required	2
Learning Objectives	Vowels Sounds, consonants Sounds, vowels
Previous Knowledge to be reminded	

Topic Synopsis:

It is very difficult to define a 'Syllable'. It is the part of a word which can be uttered at a Stretch. It is a group of Sounds with a vowel sound and with or without consonant Sounds before or after the vowel sound. It is also not easy to identify the Syllable in a word.

A word may contain one, two, three, four, five and six Syllables.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	textbook/Internet
Student Activity Planned after the teaching	Slip test
Any other activity	Writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N. MOUNIKA
Course / Group	II B.com (F) section
Paper	II
Name of the Topic	Group Discussion
Hours Required	3
Learning Objectives	Skills, traits, abilities participate in the discussion
Previous Knowledge to be reminded	

Topic Synopsis:

A group discussion is a discussion conducted in a group of people. companies or organisations which want to recruit employees conduct the discussions to assess the skills, traits and abilities of those who participate in the discussion.

A topic will be given to the group and it is asked to discuss the topic for a few minutes.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	material
References Cited	text book / Internet
Student Activity Planned after the teaching	flipkart
Any other activity	writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	English / English
Name of the Lecturer	N MOUNIKA
Course / Group	II BCom / F Section
Paper	II
Name of the Topic	Communication skills
Hours Required	2
Learning Objectives	Verbal and Non verbal Communication
Previous Knowledge to be reminded	

Topic Synopsis:

Communication is nothing but interaction with one another. It is necessary to exchange our views, opinions, ideas, feelings etc., There are different methods of communication i.e, Verbal communication and Non-verbal communication

The speaker must be able to communicate his message clearly so that it will be received properly. The speaker must be selective in using his language.

Examples / Illustrations	—
Additional Inputs	—
Teaching Aids Used	Material
References Cited	text book / Internet
Student Activity Planned after the teaching	· Slip test
Any other activity	Writing practice

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	II BA Special English
Paper	III
Name of the Topic	Restoration Period
Hours Required	6
Learning Objectives	To understand Chronology, forms and factors through the history
Previous Knowledge to be reminded	Previous age

Topic Synopsis: The period from 1660 to 1700 is named as the Restoration Period. In 1660 King Charles II was brought to the throne. The people of England was suffering from tension due to strict rule of Oliver Cromwell. Thus the nation welcomed the Restoration of Charles II. This Restoration brought about a revolutionary change in social life and literature. During this period spiritual zeal was turned to the winds. The rise of two political parties The Whigs and the Tories gave a fresh importance to men of literary ability. A new literary movement (neo-classicism) was started. The authors imitated the rules and ignored the importance of subject matter could not delve deep into human emotions; can be noticed in the age of Dryden and Pope. Pascal, Racine, Boileau and other French writings were imitated. French influence was responsible for the growth of opera. Writers waged against the Elizabethan age. Dryden, Bunyan, Locke, Temple etc were eminent writers of the age

Examples / Illustrations	Locke's Treatises of government- historical attacks on theories...
Additional Inputs	
Teaching Aids Used	Material
References Cited	
Student Activity Planned after the teaching	Mad type read Restoration Dramas
Any other activity	Student seminar

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	II BA Sp. English
Paper	III
Name of the Topic	Augustan Age
Hours Required	6
Learning Objectives	To make them aware of the socio-political milieu of the age
Previous Knowledge to be reminded	literary tendencies of the previous ages

Topic Synopsis: The social change in the 18th C called the Augustan age includes emergence of coffee houses and literary activities, interest of people in reading and publication houses and consequently the rise of middle class. It is followed by the discussion of the prime features of literary tendencies of Augustan age. On the literary domain this period is called the age of prose and reason, the age of satire and neo-classicism. It also covers the transitional poetry that binds its umbilical cord with neo-classicism and paves ways to the forthcoming age. The augustan prose poetry, drama and the new emergence of new genre called novel are discussed in detail

Examples / Illustrations	The Rape of the lock by Alexander Pope best known work of the Age
Additional Inputs	
Teaching Aids Used	Material, Internet
References Cited	other works of Augustan Age Joseph Andrews, Moll Flanders
Student Activity Planned after the teaching	Made them read Rape of the Lock Cantos
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	II BA Sp. ENGLISH
Paper	III
Name of the Topic	Robinson Crusoe
Hours Required	10
Learning Objectives	able to analyze structure of text significance of first person narrative
Previous Knowledge to be reminded	to develop analytical skills

Topic Synopsis: Robinson Crusoe by Daniel Defoe begins with Crusoe describing his early life in York, England. Crusoe as a young and impulsive wanderer, defied his parents and went to sea. He was involved in a series of violent storms at sea and was warned by the captain that he should not be seafaring man. Ashamed to go home, Crusoe boarded another ship and returned from a successful trip to Africa. Central theme of Crusoe is 'survival'. Not only does Crusoe have to physically survive on the island by securing food, water and shelter but he also has to develop self-confidence to survive, So he doesn't give up hope of a rescue. Robinson Crusoe published in 1719 is claimed to be secondary to the Bible in its number of translations.

Examples / Illustrations	Real life adventures in Discovery Channel
Additional Inputs	
Teaching Aids Used	Material
References Cited	
Student Activity Planned after the teaching	Story telling
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	
Hours Required	
Learning Objectives	
Previous Knowledge to be reminded	

Topic Synopsis:

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	III BA Special English (EHP)
Paper	VI
Name of the Topic	A Grain of Wheat
Hours Required	10
Learning Objectives	To recognise the power of different types of language.
Previous Knowledge to be reminded	Colonialism

Topic Synopsis: Ngugi wa Thiong'o is an able and winning novelist, playwright and essayist from Kenya. The events of the novel take place in the days of 1963 before and on the days when Kenya as liberation from British Colonial rule. The novel also features flashbacks of the past about a group of villagers whose lives have been transformed by the 1952-1960 Emergency. At the centre of it all is the reticent Mugo, the village's chosen hero and a man haunted by a terrible secret. The narrative focuses on the individual, in the time given to Mugo, Mumbi, Gikonyo, Karanja, Kihika, and even minor characters like General R and Koina. Almost every character feels guilty about s/th in this novel and these sources of guilt tend to derive from the betrayal of another character or of the Kenyan people. Many of the characters in this novel do reprehensible things. Native has a thematic as well as literal importance in the novel ....

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	Text, material from Internet
References Cited	
Student Activity Planned after the teaching	Student Seminar
Any other activity	

Ch. Anita
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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	III BA Sp. English
Paper	V
Name of the Topic	Crime and Punishment -
Hours Required	8
Learning Objectives	develop in students critical appreciation of the nature of law, moral arguments on normative issues with criminal law
Previous Knowledge to be reminded	

Topic Synopsis: Crime and Punishment - is a novel by the Russian author Fyodor Dostoevsky. It was first published in the literary journal The Russian Messenger in 12 monthly installments. Crime and Punishment follows the mental anguish and moral dilemmas of Rodion Raskolnikov, an impoverished ex-student in Saint Petersburg who plans to kill an unscrupulous pawnbroker, an old woman who stores money and valuable objects in her flat. This novel is a psychological analysis of the poor former student Raskolnikov, who believes that he is an extraordinary person able to take on the spiritual responsibility of using evil means to achieve humanitarian ends. This leads him to murder. The act produces nightmarish guilt in Raskolnikov. Sonia, Marmeladov, Dmitri, Avdotya, Pulkheria are other Characters.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	Text
References Cited	
Student Activity Planned after the teaching	Story telling
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	III BA Sp. English
Paper	VI
Name of the Topic	My Son's Story
Hours Required	8
Learning Objectives	to develop understanding, respect and appreciation for other cultures and can bring out positive attitude to people from different
Previous Knowledge to be reminded	

Topic Synopsis: My Son's Story is the ninth novel by South African novelist Nadine Gordimer. It was written towards the end of the state of emergency and first published in 1990. Gordimer was awarded the Nobel prize in literature. The novel tells the story of a father Sonny and his son, Will, living in Johannesburg during the final state of emergency. Sonny a coloured man who used to be a school teacher has become involved in African national Congress politics and has been imprisoned as a result of his activism. Nadine Gordimer deals with the pressing issue of Apartheid in South Africa that was tearing the country apart. It's a tale of a family torn apart by illicit love, political struggle and Apartheid. The 5 main characters are Sonny, Aida, Baby, Will and Hannah. Written in the first person, tells the story through the eyes of Sonny's son Will. Sonny's adultery

Exa mples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	Chapters from A grain of wheat
Student Activity Planned after the teaching	Student Seminar
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / ENGLISH
Name of the Lecturer	Ch. Anila
Course / Group	II BCom Gen. Eng
Paper	III
Name of the Topic	Shyness, My Shield
Hours Required	4
Learning Objectives	enable the students to transmute make a negative trait into a positive effect.
Previous Knowledge to be reminded	

Topic Synopsis: M.K. Gandhi is a prominent leader of the Indian freedom struggle. He led Non-violence and Civil disobedience movements in a peaceful manner. He is known as the 'Father of the Nation'. The present lesson is taken from his autobiography 'My Experiments with Truth'. Shyness my Shield is a thought provoking lesson. Shyness is a feeling of discomfort to speak in public. It refers to social anxiety. Shield is a broad piece of metal used as a protection against blows. It presents Gandhi's shyness and his efforts to speak in public. He narrated 3 incidents where he failed to speak in public vegetarian society in London, Vertrot and at Holborn Restaurant where he failed to speak in public.
Gandhi made his shyness as an advantage. It taught him economy of words and spiritual discipline. Finally he considers shyness as a shield and buckler. The metaphor come from the Holy Bible. In Psalm 91:4 "His truth shall be thy shield and buckler...

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	Text
References Cited	
Student Activity Planned after the teaching	Roleplay
Any other activity	

Signature of the Lecturer

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Anna Shalini. Garapati,
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Signature of the Principal

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	BA/BSc/BCom/BBA in English
Paper	III / IV
Name of the Topic	Basic writing skills of grammar
Hours Required	2
Learning Objectives	We want to improve
Previous Knowledge to be reminded	Sentence structure
Topic Synopsis:	Basic grammar for good writing skills grammar as systematic study and explanation A set of rules and examples related to a language's syntax and word system. It is usually designed to assist in language learning, writing necessities. The use of grammar in improving grammar skills knowledge for writing. Grammar is unfortunately not a fundamental building block to proper English. Some prefer a more structured grammar others use a comprehensive grammar. Grammar is important because it is the language that makes it possible for us to talk about language. It names the types of words and word groups that make up sentences not only in English but in any language.
Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	Chalk, board, material
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	English
Name of the Lecturer	Ch Anita
Course / Group	III BA Sp English
Paper	Sem V 6c
Name of the Topic	Dictionary
Hours Required	3
Learning Objectives	using different resources with confidence to write
Previous Knowledge to be reminded	

Topic Synopsis: In the learning of foreign language students are confronted with the problem of understanding. Students read some material but unable to understand and Text material. Some amys of different words can be known by consulting a dictionary. Dictionary a never failing friend of a learner. helps the learner solving the problem of meanings. Dictionary teaches other things such as noun, verb, adverb, Conjunction etc Characteristics: Improves knowledge of Grammar Student becomes better learner of the lg becomes good in spelling creates good habit of self learning expands vocabulary, helps in improvement of pronunciation. So choose English to English dictionary read the introduction find the relevant dictionary with first letter of the word.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Chalk board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	[illegible]
Paper	[illegible]
Name of the Topic	[illegible]
Hours Required	[illegible]
Learning Objectives	[illegible]
Previous Knowledge to be reminded	[illegible]

Topic Synopsis: Basic grammar for good writing skills, grammar as system and structure. Meaning and explanation. A set of rules and examples related to a language's syntax and word order. It is usually designed to assist in language learning necessitates the use of grammar. Improving grammar skills is important for writing. Grammar is inflexible, but it's a fundamental building block to proper English. Some parts require structured grammar others are a comprehensive grammar. Grammar is important because it is the language that makes it possible for us to talk about language. It names the types of words and word groups that make up sentences not only in English but in any language.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	
References Cited	Chalk, board, material
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH / SP ENGLISH
Name of the Lecturer	Ch. Anitha
Course / Group	III BA Sp English
Paper	VI SEM CC
Name of the Topic	Vocabulary
Hours Required	3
Learning Objectives	Write with confidence
Previous Knowledge to be reminded	write with confidence

Topic Synopsis: Vocabulary is a set of familiar words within a person's language usually developed with age, fundamental tool for communication and acquiring knowledge. Vocabulary provide for clear communication of our ideas and thoughts. While writing university assignments essays, dissertations and exams all rely on linguistic skills for the expression of the ideas and provision of relevant answers. Strong Vocabularies essential as it will impact on the way work is presented and understood in terms of accuracy and completeness care of reading avoidance of misunderstandings as well as a demonstration of knowledge as long as excessive verbosity is avoided.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	II BA 'A' English
Paper	Sem V 6C
Name of the Topic	Resources for writing/Thesaurus
Hours Required	3
Learning Objectives	using resources for effective writing
Previous Knowledge to be reminded	

Topic Synopsis: Thesaurus is a book that lists words in a group of synonyms so that student can use to search synonyms and sometimes, antonyms of words. Synonyms are the words that have the same or almost same meaning as another word ex small = little antonym of small = big etc

Thesaurus can come in the form of a book electronic device a website or a web processing tool. Characteristics of Thesaurus:

- Avoid repeating the same words

find the words students need to express the idea more effectively. more interestingly

Broaden Vocabulary through learning about the new words and phrases

Different senses of word are listed separately

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, board, chalk
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch Anila
Course / Group	III BA Sp English
Paper	Sem V 6C
Name of the Topic	Encyclopedia
Hours Required	3
Learning Objectives	Write with Confidence
Previous Knowledge to be reminded	

Topic Synopsis: Encyclopedia is a book or a set of books giving information of various subjects or on many aspects of one subject. It contains general information about many topics or areas. Encyclopaedia is used to find information about a person, place or thing. Articles found in encyclopaedia is usually longer and contain more information than a dictionary characteristics: Contains variety of things maps / pictures etc. Encyclopaedias are divided into articles entries which are usually present alphabetically entries are longer and more detailed well organised Encyclopaedias come in all sizes Alphabetically arranged content etc.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, board, chalk
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	[illegible]
Name of the Lecturer	[illegible]
Course / Group	[illegible]
Paper	[illegible]
Name of the Topic	Proofreading
Hours Required	3
Learning Objectives	Write into Confidence
Previous Knowledge to be reminded	

Topic Synopsis: Proofreading is not just rereading what were written / with a fresh perspective It gives the writer an opportunity to review their work to ensure that it flows well doesn't cause the reader to stumble and still conveys a clear meaning. Proof reading is simply act to ensure that there is no any Grammatical error, Capitalisation error numbering error. Spelling error. Inconsistency in the format of the document misplaced words sentence structure and punctuation mistakes. Effective proofreading is absolutely vital to the production of high quality, robust and professional documents. Proofreading will get an error free report ready for publication. proofreading shows that we take pride in our work and that it is the best we can make it.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Cloth, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anila
Course / Group	III BA Sp English
Paper	Sem VI GC
Name of the Topic	Grammar and Punctuation
Hours Required	4
Learning Objectives	use correct grammar
Previous Knowledge to be reminded	expansion, appropriate style

Topic Synopsis: In a world where conversation happen through blogs, tweets and facebook posts using proper grammar is important as it reflects back on the writer and the business he/she is representing. If you want to keep readers and continue conversation its important to use proper grammar to avoid looking silly

Its Vs it's

Its - possessive form of ~~tools~~ it

Ex: Its network is down

It's: Contraction of it

It's important to understand grammar.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Cloth, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anitha
Course / Group	III BA Sp. English
Paper	V SEM
Name of the Topic	Blogging, Podcasts
Hours Required	4
Learning Objectives	use digital resources for media writing
Previous Knowledge to be reminded	

Topic Synopsis: Blogs are usually simple websites. Blogging is as simple as obtaining a website and publishing original content on it. Tech-Savvy bloggers can buy a domain name and build the website themselves. Those with less HTML knowledge can create an account with sites like wordpress that simplify the web design and publishing process. All the posts in blog are usually created by a single author etc...

Podcasts are generally free and are available on a variety of platforms. An individual only needs a device and an internet connection to listen to podcasts. Podcasts are versatile enlightening and overpowering. One single medium has so much potential which should not be ignored by any marketer at this time...

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	III BA Sp English
Paper	VI SEM
Name of the Topic	Blogging, Podcasts
Hours Required	4
Learning Objectives	Use digital resources for media writing
Previous Knowledge to be reminded	

Topic Synopsis: Blog are usually simple websites. Blogging is a simple as obtaining a website and publishing original content on it. Tech-Savvy bloggers can buy a domain name and build the website themselves. Those with less HTML knowledge can create an account with sites like Wordpress that simplify the web design and publishing process. All the posts in blog are usually created by a single author etc...

Podcasts are generally free and are available on a variety of platforms. An individual only needs a device and an internet connection to listen to podcasts. Podcasts are versatile enlightening and overpowering. One single medium has so much potential which should not be ignored by any marketer out there...

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anila
Course / Group	III BA Sp. Eng
Paper	VI SEM
Name of the Topic	Media and Social Responsibility
Hours Required	4
Learning Objectives	Gather and synthesize information from authentic sources
Previous Knowledge to be reminded	

Topic Synopsis:

Sociologists study that mass media has some responsibility to aware the people It is very important for any country to see how the mass media shapes their people's values, beliefs, perceptions and behaviour. Media draws its basic nutrients from the society to produce its contents to survive. Media gets its sustenance from society. Society uses media for educating and informing its individuals. Society uses media to bridge the communication gap between different social groups. Media has certain obligations to society. It must show truth, accuracy objectivity and balance. Media should be free but self-regulated (Codes of Conduct and ethics)

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anila
Course / Group	III BA Sp English
Paper	Sem V 6C
Name of the Topic	Media writing and translation
Hours Required	4
Learning Objectives	Gather and synthesize information from authentic sources
Previous Knowledge to be reminded	
Topic Synopsis:	Media Translation entails the change of information from one language to the other mainly for the purpose of easy understanding by a particular audience. objectivity and neutrality are key issues in the media and although the two words are often used interchangeably. Objectivity and neutrality are very critical in the media and should not be underemphasized. If the media is to be deemed effective in relaying important issues to the public. The problem becomes more influential when translation is involved and is therefore important that the different media personel are fully aware of the issues associated with translation of news from one language to another to avoid undermining the objectivity and neutrality aspects of news.
Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anita
Course / Group	III BA Sp English
Paper	Sem V GC
Name of the Topic	Sources of writing
Hours Required	4
Learning Objectives	gather and synthesize information from authentic sources
Previous Knowledge to be reminded	

Topic Synopsis: Primary source - source is someone at the centre of the event or issue with eye witness sources. Not all primary sources will be spoken. Written reports can make an excellent source of information for a journalist leaked documents: may be given by someone in a company or government department who does not want to be seen giving them to the media often leaked by people who believe that public should know the contents. Secondary sources: Those people who do not make the news but who have it on Most eye witness should be treated as secondary sources for journalists.
Tip-offs: Occasionally someone will call with a story tip-off but refuse to give their name said to be anonymous. Attribution: telling readers the name and title of the person interviewed a document of the information from.
Most information given will be on record
A source that gives information on the understanding that you can use the information but not attribute it to them is non attributable...

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	ENGLISH
Name of the Lecturer	Ch. Anila
Course / Group	III B.A Sp English
Paper	Sem V GC
Name of the Topic	Writing for Specialized Areas Sports, Cuisine, Entertainment writing
Hours Required	4
Learning Objectives	Writing with confidence
Previous Knowledge to be reminded	Differentiate between various types of writing

Topic Synopsis: Sports writing is a form of non-fiction or creative, Journalism that covers sports, athletes or other sports related issues. Journalist who reports on sports is called a sports writer. Elements of sports writing Covers highlights of the game, names of the teams involved, type of sport-story of final outcome when and where the game was played etc.

Entertainment is an activity providing amusement and enjoyment for leisure or fun purposes. Examples from TV shows, live performances, events, musical extravaganza, games and adventurous sports travelling and sightseeing and many more Entertainment writing an exciting facet of the entertainment industry. Entertainment Journalism is an incredible rewarding experience.

Cuisine of food writing is a non fiction Category of writing that focuses on the topic of food It can encompass a wide range of genres including journalism, recipe books, memoirs & travelogues etc.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	English
Name of the Lecturer	Ch. Anita
Course / Group	III B.A Sp English
Paper	Sem V 6C
Name of the Topic	Informative, Descriptive persuasive writing
Hours Required	4
Learning Objectives	Differentiate between various types of media writing
Previous Knowledge to be reminded	

Topic Synopsis:

Informative writing is non fiction writing that occurs when facts and information are used to communicate knowledge and insight into a specific topic. It should be supported by sources and the writer needs to give credit to the source in which the information was found.

Descriptive is all about description of something like any person, places and events. Consideringly we are describing Convey an exact picture avoid clichés and formulaic writing etc. Descriptions help to create a dominant impression mood or quality. They may be objective or subjective.

Persuasive writing is a form of writing intended to convince readers to accept a particular idea to inspire action. It often involves considering the needs of the target audience an important skill etc....

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Chalk, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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Proforma for Teaching Synopsis

Name of the Department / Subject	
Name of the Lecturer	
Course / Group	
Paper	
Name of the Topic	Proofreading
Hours Required	3
Learning Objectives	write with confidence
Previous Knowledge to be reminded	

Topic Synopsis: Proofreading is not just reading what were written with a fresh perspective. It gives the writer an opportunity to review their work to ensure that it flows well. It can help the reader to stumble and still convey a clear meaning. Proof reading is important to ensure that there is not any Grammatical error, Capitalisation error, numbering error, Spelling error, Inconsistency in the format of the document, Misplaced words sentence structure, punctuation mistakes. Effective proofreading is absolutely vital to the production of high quality, robust and professional documents. Proofreading will get an error free report ready for publication. proofreading shows that we take pride in our work and that it is the best we can make it.

Examples / Illustrations	
Additional Inputs	
Teaching Aids Used	material, Cloth, board
References Cited	
Student Activity Planned after the teaching	
Any other activity	

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