ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

CLASS : XI

NAME OF THE TEACHER: Bhavika Narang

SUBJECT : Economics

Learning Objectives:

- Understanding of the most basic economic concepts and development of economic reasoning which the learners can apply in the day-to-day life as citizens, workers, and consumers.
- Analyzing how supply and demand determine prices and quantities in various markets.
- Studying how individuals make choices based on preferences, budget constraints and utility maximization.
- Investigating different types of market structures and their implications for prices and output.
- Equipment with basic tools of economics and statistics to analyze economic issues This is pertinent for even those who may not pursue this course beyond senior secondary stage.
- Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically and with reasoning.

Month	**Chapter Name**	**Sub-topics**	**Periods**	**Learning Outcomes**	**Teaching Learning Strategies/Activities**	**Resources**	**Assessment Tools (a) for Identifying Learning Gaps (b) for determining understanding level**	**Interdisciplinary Approach**
April	**Statistics for economics:** Introduction of statistics	What is Economics? Meaning, scope, functions and importance of statistics in Economics	10	Enables the students to understand the relationship between economics and statistics. They will be able to establish the importance of statistics in	Lecture method, class discussion and real life examples.	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Mind maps, quizzes, MCQs, short – answer test	**Economics + Math:** data understanding **Economics + Political science:** policy making

				economic activities. Students can relate the statistics with the process of consumption, production and distribution. They will be able to chalk out how statistics is related to economics, business planning, economic planning etc.				
April	**Statistics for economics:** Collection of data	Sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting	10	Students will be able to understand the purpose of collection of the data. They will be able to give examples to differentiate between primary and secondary	Class discussion and lecture method, preparation of questionnaire, real-life examples	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Class test, MCQs	**Economics + English:** Question framing **Economics + Sociology:** field work

		data; some important sources of secondary data: Census of India and National Sample Survey Organisation		data. Students will understand how to collect the data for statistical study. They will be able to know the techniques of sampling. Chalk out the important sources of secondary data. Discuss the various techniques of sampling				
May	**Statistics for economics:** Organisation of data	Meaning and types of variables; Frequency Distribution.	08	Enable the students to differentiate between quantitative and qualitative classification. The students will be able to construct a frequency distribution	Interactive examples of organizing height and age, lecture method, Questions and worksheets for practicing questions	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Quizzes, Give students data to organsize, class test	**Economics + Maths:** Numerical classification **Economics + Computer science:** Data entry

				table. Enable to differentiate between discrete and continuous series They will also be able to construct the bivariate and univariate frequency distribution table				
May	**Statistics for economics:** Presentation of data, tabular, diagrammatic	Tabular Presentation and Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams),	08	Enable the students to chalk out various types of presentations They will be able to draw tables Differentiate between different types of diagrams. Enable them to construct graphs.	Lecture method, draw diagrams manually from given data,	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Create a chart/diagram using real data, class test for tabular and diagrammatic presentation.	**Economics + Art:** design of diagrams **Economics + IT:** design of graphs

Note: Instructions for the Project work will be given in the class and the guidelines will be given to students to complete the project work during summer vacations.								
July	**Statistics for economics:** Graphic presentation	Frequency diagrams (histogram, polygon and Ogive) Arithmetic line graphs (time series graph).	04	Students will be able to differentiate between different types of graphs. They will be able to present the presentations on graph.	Lecture method, students presentation of different graphs, overlay frequency polygon over histogram, practice questions	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Class test, draw and interpret given data sets, extra practice questions through assignment.	**Economics + Maths:** graph plotting
July	**Statistics for economics:** Measure of central tendency (Mean)	Arithmetic mean	15	Understand the meaning of averages. Students will be able to explain how a single number represents the whole set of data. Enable the students to find out averages numerically in different types of series. They will be able to	Solving numerical problems step by step, use real life data sets to compute measures,	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Worksheet, quiz, extra numerical questions through assignment, diagnostic test	**Mathematics:** numerical operations

				differentiate between different types of averages. Enable the students to explain properties of AM with the help of examples.				
July	**Statistics for economics:** Measure of central tendency (Median and Mode)	Median and Mode	15	Enable the students to understand the concept of partition values and its relevance in statistics. Enable the students to do numerical on Median and Mode Locate median and mode diagrammatically.	Solving numerical problems step by step, use real life data sets to compute measures,	Textbooks Digital platforms Interactive tools Class activities Worksheets assessments and feedback tools	Worksheet, quiz, extra numerical questions through assignment, diagnostic test	**Mathematics:** numerical operations
August	**Microeconomics:** Introduction	Meaning of microeconomics and	08	Enable the students to differentiate	Brainstorming, case study discussion, hands	Textbooks Digital platforms	Analyse incorrectly drawn PPC, Diagnostic tests,	**Geography:** use of land resources illustration

		macroeconomics; positive and normative economics What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of Production Possibility Frontier and Opportunity Cost		between micro and macro economics Students will be able to give examples of positive and normative economics Explain the problems of: What to produce, How to produce, For whom to produce in various economic systems Construct PPC and explain the curve and points on PPC	on plotting of PPCs, lecture method	Interactive tools Class activities Worksheets Assessments and feedback tools	assignments, short scenario based question to guess economic problem involved, worksheets	**Mathematics:** coordinate geometry to understand slopes and draw PPC **Environmental Science**: Scarcity of natural resources and choices made
August	**Microeconomics:** Consumer Equilibrium (utility approach)	Consumer's equilibrium - meaning of Utility, Marginal Utility, Law of Diminishing Marginal Utility,	10	Differentiate between different types of utility Enable the students to calculate TU and MU They will be	Lecture method, class discussions, making of graphs and diagrams	Textbooks Digital platforms Interactive tools Class activities	Problem solving worksheets, diagnostic quiz, MCQs, assignments.	**Mathematics**: Use of graphs, slopes, tangents, equations **Psychology**: Understanding behavior through rational choice

		conditions of consumer's equilibrium using marginal utility analysis.		able to calculate TU and MU Enable them to establish the relationship between TU and MU Students will be able to tell the conditions for consumers equilibrium for 1 and 2 commodity case Enable them to numerically calculate consumers equilibrium in 1 and 2 commodity case				theory
August	**Microeconomics:** Consumer equilibrium (Indifference curve approach)	Indifference curve analysis of consumer's equilibrium- the consumer's budget (budget set and budget	06	Enable students to define budget line, budget set, budget equation Student will be able to tell the importance of consumers	Lecture method, class discussions, making of graphs and diagrams	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Problem solving worksheets, diagnostic quiz, MCQs, assignments.	**Mathematics**: Use of graphs, slopes, tangents, equations **Psychology**: Understanding behavior through rational choice

		line), preferences of the consumer (indifferenc e curve, indifference map) and conditions of consumer's equilibrium.		preference and budget line in finding out consumers equilibrium Construct the diagram showing consumer's equilibrium in indifference analysis Chalk out the conditions for consumers equilibrium in indifference analysis Construct the diagram showing consumers equilibrium in indifference analysis				theory
August	**Microeconomi cs:** Demand Concept	Demand, market demand, determinan ts of demand, demand schedule,	10	Construct the diagram showing consumers equilibrium in indifference analysis Differentiate between	Lecture method, visual demonstration, making of graphs and diagrams	Textbooks Digital platforms Interactive tools Class activities Worksheets	Flowcharts, short-answer questions, diagnostic quizzes, graph plotting activity	**Mathematics**: Creating and interpreting demand schedules and graphs **Psychology**: Consumer preferences and

		demand curve and its slope, movement along and shifts in the demand curve		demand and desire draw demand curve relate demand to various factors affecting demand. By constructing a diagram of the demand curve and showing change in demand and change in quantity demanded.				behavioral economics **Business Studies**: Link to marketing, pricing strategies, and customer segmentation
September	**Microeconomics:** Elasticity of demand	price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-	06	Enable students to differentiate between desire and Demand Chalk out the factors which affect Demand Differentiate between normal and inferior goods substitute and	Lecture method, practice of numerical questions, class discussion, revenue table activity (link elasticity to total expenditure), real world survey of elasticity of various items	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Solve numerical questions, quizzes, extra worksheets, short-answer questions, case based questions	**Mathematics**: Use of percentage change, formulas, slope analysis **Business Studies**: Pricing decisions, revenue implications, product planning **Psychology**: Consumer responsiveness to

		change method and total expenditure method.		complementary goods Draw the demand schedule and the demand curve Give reasons for the downward slope the demand curve Students will be able to measure Ed numerically				change
September	**Microeconomics:** Producers behavior, production function, product concept	Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product. Returns to a Factor	05	Define production function Establish relationship between TPP and MPP using diagram Draw curves of TPP, MPP and AP Enable the students to chalk out various phases of law of variable	Lecture method, group discussion, assignments, numericals	Textbooks Digital platforms Interactive tools Class activities Worksheets	Concept sorting, short-answer questions and MCQs, numerical exercise, graph plotting and interpretation	**Mathematics**: Graphical analysis of functions, derivatives for MP/AP **Business Studies**: Link to factors of production, scaling of operations **Economics**: Understanding the behavior of inputs and outputs in production **Physics**:

				proportions They will be able to calculate MPP, APP and TPP Chalk out in which phase producer would lke to produce.				Relationship between inputs and output in terms of efficiency and technology
September	**Microeconomics:** Cost concept and Revenue concept	Cost – Short run costs - Total Cost, Total Fixed Cost, Total Variable Cost; Average Cost; Average Fixed Cost, Average Variable Cost and Marginal Cost - meaning and their relationships. Revenue – Total	05	Enable the students to define cost and revenue Differentiate between various cost concepts Establish relationships between TC, MC, AC using curves and schedules. Draw TR, MR and AR curves and understand the relationship between them. Draw the AR and MR curves	Lecture method, explanation of formulas, practice numericals and plot curves.	Textbooks Digital platforms Interactive tools Class activities Worksheets	Concept sorting, learning formulas, numerical worksheets, curve plotting, quizzes, MCQs and practice questions.	**Accounting**: Links with cost classification in financial statements **Mathematics**: Averages, slopes, curve analysis **Business Studies**: Costing and budgeting in business operations and Pricing and sales revenue analysis **Commerce**: Relation to income statements in

		Revenue, Average Revenue and Marginal Revenue - meaning and their relationship .		in various markets and explain why the shape is so.				accounting
September	**Microeconomics:** Producers Equilibrium Producers Equilibrium using MR-MC approach	Producer's Equilibrium - meaning and its conditions in terms of Marginal Revenue Marginal Cost.	05	Enable the students to define producer's equilibrium Enable the students to draw diagrams showing producers equilibrium using MR and MC curves. Students will be able to tell why MP=MC, when MC curve cuts MR from below is Using diagram producer equilibrium will be explained using MR and	Concept explanation through lecture method and class discussion. Use of graphs and tables. Numerical problem solving.	Textbooks Digital platforms Interactive tools Class activities Worksheets	Concept mapping, quizzes, practice of numerical questions, written assignments.	Mathematics: use of numerical data, tabular representation and graphical analysis. Business studies: Linking with concepts of production, cost, and profit from the business decision-making perspective. Entrepreneurship: connect to startup planning, pricing strategies and cost management strategies.

				MC.				
September	**Revision for Half-yearly exams**							
October	**Microeconomics:** Supply	Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve	06	Enable students to differentiate between stock and supply Chalk out the factors which affect supply Differentiate between normal and inferior goods substitute and complementary goods Draw the supply schedule and the supply curve Give reasons for the upward slope the supply curve Differentiate between change in supply and	Lecture method, graph drawing, class discussion	Textbooks Digital platforms Interactive tools Class activities Worksheets	Concept review, conceptual quiz, practice questions, case study and drawing of supply curve	**Mathematics**: Understanding slope, plotting graphs, calculating percentage changes **Business Studies**: Link to production decisions, pricing, and inventory management **Economics**: Connecting supply decisions with market conditions, government policies (subsidies, taxes)

				change in quantity supply using diagram Enable them to show changes on the supply curve because of change in factors affecting supply.				
October	**Microeconomics:** Elasticity of supply	price elasticity of supply; measurement of price elasticity of supply - percentage-change method	04	Define Es and chalk out the factors affecting Es Students will be able to tell degree of Es of various goods Students will be able to tell the values of various degrees of Es Enable students to draw the slope of various degrees of Es Enable students to	Group discussion, lecture method, graph plotting and numerical practice.	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Quizzes, short answer questions, numerical practice, graphing task	**Mathematics**: Percentage changes and calculating PES **Business Studies**: Implications of elasticity on pricing, production planning, and inventory **Economics**: Understanding how supply responds to price changes across various industries

				mathematically calculate Es and interpret the result.				
October	**Microeconomics:** Various market forms Perfect competition	Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply. (Short Run Only)	03	Define market based on competition in the market Chalk out the features and its implications in perfect market Draw the diagrams of how prices are determined in perfect market form.	Lecture method, group discussion, role play, real world examples	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Concept mapping, case study analysis, short answer questions	**Mathematics**: Understanding and interpreting demand, supply, and cost curves in different market structures **Business Studies**: Pricing strategies in different market types, competition vs monopoly **Economics**: Microeconomic theory application to real-world market scenarios
November	**Microeconomics:** Equilibrum price	Simple Applications of Demand and Supply: Price ceiling, Price floor.	05	Students will be able to show with the help of a diagram, how equilibrium price and quantity is determined. Enable them to	Lecture method, real world case study, class discussion, graph plotting	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Quizzes, short-answer questions, graph plotting, scenario analysis	**Mathematics**: Graphical analysis of equilibrium, calculation of equilibrium price and quantity **Business Studies**: Pricing strategies in relation to market

				draw diagrams, showing the effect of changes in DD and SS on equilibrium price and quantity. Draw the curves showing situation of excess and deficient DD Students will be able to chalk out the steps taken by the government in the situation of excess and deficient DD				equilibrium **Economics**: Applying equilibrium concepts to understand market behavio
November	**Statistics for economics:** Correlation	meaning and properties, scatter diagram; measures of correlation - Karl Pearson's method	10	Enable the students to understand the meaning of correlation. Enable them to establish relationships between the variables e.g. positive and	Lecture method, class discussion, numerical practice, real world examples.	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Numerical exercises, graph interpretation, short-answer questions, quizzes, case study	**Psychology**: Correlation studies in behavioral research (e.g., relationship between stress and performance) **Mathematics**: Understanding of basic statistical operations,

		(two variables ungrouped data) Spearman's rank correlation (Non-Repeated Ranks and Repeated Ranks).		negative correlation. Enable the students to estimate the degree of correlation through scatter diagrams. Enable them to calculate Coeff. of correlation and tell the degree of correlation between them.				formulas for Pearson's correlation coefficient **Statistics**: Data analysis techniques, understanding of correlation coefficients and their significance
December	**Statistics for economics:** Index numbers	meaning, types - Wholesale Price Index, Consumer Price Index and index of industrial production, uses of index numbers; Inflation and Index Numbers, Simple	10	Enable the students to define index numbers They will give examples of some index numbers and where they are used. Chalk Out the formulas for index numbers. Enable them to calculate various index	Lecture method, class discussion, numerical practice, real world examples	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Numerical exercises, graph interpretation, short-answer questions, quizzes, case study	**Mathematics**: Understanding of percentage changes, weights, and averages **Statistics**: Data analysis techniques for calculating and interpreting index numbers **Economics**: Application of index numbers in measuring economic variables

		Aggregative Method.		numbers numerically.				such as inflation, GDP, cost of living, etc.
December	**Revision for practice exams**			Students will be doing the sample paper in their registers.	Practice of subjective and objective type tests will be given through pen and paper tests. DAV Sample paper will be discussed in class	Sample papers	Discussion of sample papers	
January	**Practice exams**			Enable them to attempt competency based questions.	Sample papers will be discussed in class . Practice of competency based questions will be given.	Sample papers	Discussion of competency based questions and sample papers	
February	**Assessment of final project will be done** **Annual exam in February, 2025**				Viva will be taken from the project and project reports will be assessed			

(2025-26)
CLASS XI
SUBJECT CHEMISTRY

OBJECTIVES

1 Promote understanding of basic facts and concepts of chemistry while retaining the excitement of chemistry.
2 Make students capable of studying chemistry in academic and professional courses(such as medicine, engineering ,technology) at tertiary level.
3 Expose the students to various emerging new areas of chemistry and apprise them with their relevance in future studies and their application in various spheres of chemical science and technology.
4 Equip students to face various challenges related to health,
nutrition ,environment,population, weather, industries and agriculture.
5 Develop problem solving skills in students.
6 Apprise students with the interface of chemistry with other
disciplines of science such as Physics, Biology, Engineering Geology and Mathematics.
7 Acquaint students with different aspects of chemistry and its use in daily life.
8 Develop an interest in students to study chemistry as a discipline.
9 Integrate life skills and values in context of chemistry

EVALUATION AND ASSESSMENT

Examination	**Month**	**Marks**
Periodic I	May 2025	20
Periodic II/Half Yearly exam	September 2025	As per CBSE
Periodic III/ Pre Board I	November 2025	As per CBSE
Practice exam I/ Pre Board II	December 2025	As per CBSE

Internal Assessment/ Practicals	January 2026	As per CBSE
Annual exams/ CBSE exams	February 2026 March 2026	As per CBSE

COURSE STRUCTURE

S. No	UNIT	Marks
1	Some Basic Concepts of Chemistry	7
2	Structure of Atom	9
3	Classification of Elements and Periodicity in Properties	6
4	Chemical Bonding and Molecular Structure	7
5	Chemical Thermodynamics	9
6	Equilibrium	7
7	Redox Reactions	4
8	Organic Chemistry: Some basic Principles and Techniques	11
9	Hydrocarbons	10
	TOTAL	**70**

MONTH APRIL
NO. OF WORKING DAYS 21

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES/ INTERDISCIPLINARY APPROACH
UNIT Some basic concepts of	Students will be able to ● Understand and appreciate the	Oral test Pen paper test	Interactive approach	NCERT Vol 1

chemistry No. of periods :12 TOPIC ● General introduction ● Importance and scope of chemistry ● Nature of matter ● Laws of chemical combinations ● Dalton's Atomic theory ● Concept of elements compounds and mixture ● Atomic and molecular masses ● Mole concept and molar mass ● Percentage composition ● Empirical and molecular formula ● Chemical reactions ● Stoichiometry and	role of chemistry in different spheres of life ● Explain the characteristics of three States of matter ● Classify different substances into elements compounds and mixtures ● Use scientific notation ● Define SI base units and list some commonly used prefixes ● Differentiate between accuracy and precision ● Convert physical quantities from one system of units to another ● Explain various laws of chemical combination ● Appreciate significance of atomic mass average atomic mass molecular mass and formula mass ● Define the term	Subjective MCQ test	Demonstration ACTIVITIES ● Basic Laboratory techniques ● Crystallization of CuSO4 .2H20	

calculations based on stoichiometry	mole and solve numericals on mole concept ● Calculate the mass percent of component elements constituting a compound. ● Determine empirical formula and molecular formula for a compound from the given experimental data ● Perform the stoichoimetric calculations			

MONTH MAY
NO. OF WORKING DAYS 17

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES/ INTERDISCIPLINARY APPROACH
UNIT Structure of atom No.of periods:14	Students will be able to ● Know about the discovery of	Periodic test MCQ	Lecture method Interactive	NCERT VOL 1

Topic • Discovery of electron proton and neutron • Atomic number • Isotopes and isomers • Thomson's model and its limitations • Rutherford 's model and its limitations • Bohr's model and its limitation • Concept of shells and Subshells • Dual nature of matter and light • de Broglie's relationship • Heisenberg's uncertainty principle • concept of orbitals • Quantum numbers • Shapes of s,pand d orbitals • Rules for	electron proton and neutron and their characteristics • Describe Thomson Rutherford and Bohr's atomic models • Understand the important features of the quantum mechanical model of atom • Understand nature of electromagnetic radiation and Planck's Quantum theory • Explain the photoelectric effect and describe features of atomic spectra • State the De Broglie relation and Heisenberg Uncertainty Principle • Define atomic orbital in terms of quantum numbers • State Aufbau's principle, Pauli's exclusion principle and Hund's rule of maximum multiplicity	test	approach Videos	

filling electrons in atoms based on Pauli's exclusion principle,Aufbau's principle and Hund's rule ● Electronic configuration of atoms ● Stability of half filled and completely filled orbitals	● Write the electronic configuration of atoms			

MONTH JULY
NO. OF WORKING DAYS 25

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
UNIT Classification of elements and periodicity in properties No.of periods: 8 TOPIC ● Classification	Students will be able to ● Appreciate how the concept of grouping elements in accordance to their properties lead to the development of periodic table	Art Integrated assignment Class test	Lecture method Group7y discussion Art integrated learning Power point presentation	NCERT VOL 1

• brief history of development of periodic table • Modern Periodic law and present form of periodic table • Periodic trends in properties of elements • Atomic radii • Ionic radii • Inerrt gas radii • Ionisation enthalpy • Electron gain enthalpy • Electronegativity Valency • Nomenclature of elements with atomic number greater than 100	• Understand the periodic law • Understand the significance of atomic number and electronic configuration as the basis of periodic classification • Name the elements with atomic number greater than hundred according to IUPAC Nomenclature • Classify the elements into s ,p, d and f blocks and learn their main characteristics • Recognise the periodic trends in physical and chemical properties of elements • Use scientific vocabulary appropriately to communicate ideas related to certain important properties of elements for example atomic		in groups ACTIVITIES Quantitative Analysis 1preparation of standard solution of oxalic acid 2 Titration of Oxalic acid vs NaOH	

	radii, ionic radii ,ionization enthalpy, electron gain enthalpy, electronegativity and valence of elements			
UNIT Chemical bonding and molecular structure No. of periods: 14 TOPIC ● Valence electrons ● Ionic bond covalent bond ● Bond parametres ● Lewis structures ● Polar character of covalent bond ● Covalent character of ionic bond ● Valence bond theory ● Resonance ● Geometry of covalent molecules	Students will be able to ● Understand kossel Lewis approach to chemical bonding ● Explain the octet rule and its limitations draw Lewis structures of simple molecules ● Explain the formation of different types of bonds ● Describe the VSEPR theory and predict the geometry of simple molecules ● Explain the valence bond approach for the formation of covalent bonds ● Predict the directional properties of covalent bonds ● Explain the	Class Room Discussion Lecture and Interactive approach	Art Integrated approach	

• VSEPR theory • Concept of hybridisation involving s,p,and d orbitals • Shapes of some simple molecules • Molecular orbital theory of homonuclear diatomic molecules • Hydrogen bond **UNIT** s & p Block Elements **TOPICS** • Electronic configuration, • Atomic & Ionic radii, • Ionization Enthalpy, • Hydration Enthalpy • General trends in physical and chemical properties of s and p	different types of hybridization involving s p and d orbitals and draw shapes of simple covalent molecules • Describe the molecular orbital theory of homonuclear diatomic molecules • Explain the concept of hydrogen bonding Students Will be able to • Write electronic configuration of s and p block elements • Define , atomic abd ionic radii Ionisation enthalpy, hydration enthalpy and electron gain enthalpy • Explain the physical and chemical properties of s and p block elements • Describe unique behavior of first element of each	Formative assessment	Peer teaching PPT	

block elements across the periods and down the groups ● Unique behavior of the first element in each group	group			

MONTH AUGUST
NO. OF WORKING DAYS 23

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
UNIT Thermodynamics TOPIC ● Concept of system and types of systems ● Surroundings ● Work ● Heat ● Energy ● Extensive and	Students will be able to ● Explain the term system and surroundings ● Differentiate between open closed and isolated systems ● Explain internal energy work and heat ● State first law of	Class test Oral test Numerical ability test	Lecture method Interactive approach	NCERT VOL 1

intensive properties • State functions • First law of thermodynamics • Internal energy and enthalpy • Heat capacity and specific heat capacity • Measurement of change in internal energy and change in enthalpy • Hess's law of constant heat summation • Enthalpy of bond dissociation, combustion, formation, atomisation, sublimation, phase transition, ionisation, solution and dilution • Second law of thermodynam	Thermodynamics and Express its mathematical formulation • Explain state functions like internal energy and enthalpy • Correlate between change in internal energy and change in enthalpy • Measure experimentally internal energy change and enthalpy change • Defines standard enthalpies • Calculate enthalpy change for various type of reactions • State and apply Hess's law of constant heat summation • Differentiate between extensive and intensive variables • Define spontaneous and nonspontaneous processes • Explain entropy is a thermodynamic state function and applied for			

ics ● Introduction of entropy as a state function ● Gibb's energy change for spontaneous and nonspontaneous processes ● Third law of thermodynamics UNIT: Redox reactions No. of periods :6 TOPIC ● Concept of oxidation and reduction ● Redox reaction ● Oxidation number ● Balancing the redox reaction in terms of loss and gain of electrons and change in oxidation number ● Applications of redox	spontaneity of a process ● Explain Gibbs Energy change ● Establish relationship between Gibb's energy change and spontaneity and equilibrium constant. , Students will be able to ● Identify a Redox reaction as a class of reactions in which oxidation and reduction reactions occur simultaneously ● Define the terms oxidation reduction oxidant and reductant ● Explain the mechanism of redox reaction by electron transfer process ● Use the concept of oxidation number to identify oxidant and reductant in a reaction			

reactions	• Classify the redox reactions into combination ,decom position, displacement and disproportionation reaction • Balance chemical equations using oxidation number method and half reaction method • Learn the concept of redox reactions in terms of electrode processes			

MONTH SEPTEM BER
NO. OF WORKING DAYS 23

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSES SMENT TOOLS	METHOD OLOGY TEACHIN G LEARNIN G STRATE GIES	RESOU RCES_
Revision work Half Yearly exams	-	Pen paper test	-	-

MONTH OCTOBER
NO. OF WORKING DAYS 21

UNIT	LEARNING OUTCOMES	ASSESSMENT	METHODOLOGY	RESOURCES

TOPIC / SUB TOPIC		TOOLS	TEACHING LEARNING STRATEGIES	
UNIT Organic chemistry Some basic principles and techniques No. of periods:14 TOPIC ● General introduction ● Methods of purification ● Qualitative and quantitative analysis ● Classification and IUPAC nomenclature of organic compounds ● Electronic displacement in covalent bond ● Inductive effect ● Electromeric effect ● Resonance and hyperconjugation ● Homolytic and Heterolytic fusion of a covalent bond ● Free radicals ● Carbocations and carbanions ● Electrophile and nucleophiles ● Types of organic reactions	Students will be able to ● Understand reasons for tetravalency of carbon and shapes of organic molecules ● Write structure of organic molecules in various ways ● Classify the organic compounds ● Name the compounds according to IUPAC system of nomenclature and also derive their structures from the given names ● Understand the concepts of Organic reaction mechanism ● Explain the influence of electronic displacement on structure and reactivity of organic compounds ● Recognise types of organic reactions ● Learn the techniques of purification of organic compounds ● Write the chemical reactions involved in the qualitative analysis of organic compounds	Class test MCQ Assignment Mind Maps	Lecture method Group discussion Mind maps Salt Analysis Identification of basic radical	NCERT VOL 2

UNIT Hydrocarbon TOPIC ● Classification of hydrocarbons ● Aliphatic hydrocarbons ● Alkanes Nomenclature Isomerism Conformations Physical properties Chemical reactions ● Mechanism of halogenation ● Combustion and pyrolysis ● Alkenes Nomenclature Structure of double bond ● Geometrical isomerism **INVESTIGATORY PROJECT**	● Understand the principles involved in quantitative analysis of organic Students will be able to ● Identify basic radicals in given salt ● Apply Concept of common ion effect in identifying basic radical			

MONTH NOVEMBER
NO. OF WORKING DAYS 22

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
Unit Hydrocarbon Topics	Students will be able to ● Name hydrocarbons according	Class test MCQ	Interactive approach Peer yeaching	NCERT VOIL 2

• Physical properties • Methods of preparation • Chemical reactions • Addition of hydrogen ,halo gen ,water ,hy drogen halides ,Marko vnikov's addition peroxide effect, Ozonysis oxidation • Mechanism of electrophilic addition • Alkynes • Nomenclature • Structure of triple Bond • Physical properties • Methods of preparation • Chemical reaction • Acidic character of alkynes • Addition reaction of hydrogen ,halo gen hydrogen	to IUPAC system of nomenclature • Recognise and write structures of isomers of alkanes ,alkenes, alkynes and aromatic hydrocarbon • Learn about various methods of preparation of hydrocarbons • Distinguish between alkanes alkenes alkynes and aromatic Hydrocarbons on the basis of physical and chemical properties • Draw and differentiate between various conformations of Ethane • Appreciate the role of Hydrocarbons as a source of energy and for other industrial applications • Predict the formation of addition products of unsymmetrical alkene and alkynes on the basis of mechanism • Comprehend the structure of benzene explain aromaticity and understand mechanism of electrophilic substitution reactions of benzene • Predict the directive influence of substituents in monosubstituted benzene ring	Subjective		

halides ,water ● Aromatic hydrocarbon ● Introduction ● IUPAC Nomenclature benzene ● Resonance ● Aromaticity ● Chemical properties ● Mechanism of electrophilic substitution Nitration ,sulp honation ,halo genation Friedal craft alkylation and acylation ● Directive influence of functional groups in mono substituted benzene ● Carcinogenity and toxicity UNIT EQUILIBRIUM TOPIC ● Equilibrium in physical and chemical processes	Students will be able to ● Identify the dynamic nature of equilibrium involved in physical and chemical processes ● State Law of equilibrium ● Explain characteristics of equilibrium involved in physical and chemical processes ● Write expression for equilibrium constant ● Establish the relationship between equilibrium constant Kp and Kc ● Explain various factors that affect the equilibrium state of a reaction ● Classify substances acids and bases according to arrhenius bronsted lowry and Lewis concept ● Classify acid and bases as weak or strong in terms of the ionization constant ● Describe pH scale in expressing concentration of hydrogen ions ● Explain ionization of water ● Understand solubility product and ionic product ● Appreciate the importance of common Ion effect in qualitative analysis			

• Dynamic nature of equilibrium • law of mass action • law of chemical equilibrium • Equilibrium constant • Factors effecting equilibrium nature • Le chatlier's principle • Ionic equilibrium • Ionisation of acid and bases • Strong and weak electrolytes • Degree of ionisation of a poly basic acid • Acidic strength • Concept of pH • Buffer solution • Solubility product, and common ion effect **PRACTICAL** Salt analysis				

MONTH DECEMBER
NO. OF WORKING DAYS 24

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
UNIT The Gaseous state ● Qualitative treatment of Gas laws, Ideal gas equation and deviations from it Revision Practice exam I	Students will be able to ● State gas laws ● Represent Laws graphically and Interpret them ● Solve Numericals ● Derive ideal gas equation ● Explain deviations from ideal behaviour.	Formative assessment only. Pen paper test	Lecture Method Interactive approach -	NCERT resource Material

MONTH JANUARY
NO. OF WORKING DAYS 17

UNIT TOPIC / SUB 7TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
Revision Practical exams	–	Oral test Written Test	-	-

MONTH FEBRUARY

NO. OF WORKING DAYS 22

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
Annual practicals Annual exams	–	Pen paper test Practical Examination	-	-

MONTH MARCH
NO. OF WORKING DAYS 21

UNIT TOPIC / SUB TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	METHODOLOGY TEACHING LEARNING STRATEGIES	RESOURCES
Annual Exam	–	Pen Paper test	-	-

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

2025-26

CLASS : XI **SUBJECT : PHYSICAL ACTIVITY TRAINER** **NAME OF THE TEACHER: GEETA SRIVASTAVA**

Topic/ No. of Periods Date	**Learning Outcomes**	**Assessment Tools (a) for Identifying Learning Gaps (b) for determining understanding level**	**Teaching Learning Strategies/ Activities**	**Resources**	**Inter-Disciplinary approach**
Topic : **ROLE OF PHYSICAL EDUCATION IN CHILD DEVELOPMENT** **Sub topic:** **(**1) Identify the physical and emotional needs of the children (2) Identify factors influencing physical activities (3) Plan physical activities for children **NO OF PERIODS :** 19 **DATE/MONTH** APRIL	**Students will be able to :** *Demonstrate the knowledge of the importance of physical activity in child development * Designing of activities for children	Homework Class Discussion	Lecture-Based Instructions Group Learning Kinesthetic Learning	Text Book Websites	Sociology Psychology Anthropometry
Topic : **PROPS AND EQUIPMENT** **Sub topic:** (1) Describe various types and tools	**Students will be able to :** *Demonstrate the use of Props and Equipment	Class Discussion	Lecture-Based Instructions	Text Books	Mathematics

of Assessment (2) Prepare the list of equipment (3) Describe the process of Inspection of Playfield **NO OF PERIODS :** 10 **DATE /MONTH** MAY	*Prepare the list of different types of Equipment used in sports activites * Know about the high frequency and low frequency inspection	Observation Quizzes	Group Learning Kinesthetic Learning	Websites Pictures	Physics Sports Engineering
Topic : **HYGIENE AND SAFETY** **Sub topic :** (1) Demonstrate maintenanace of hygiene in Play area **(**2) Demonstrate Basic First Aid (3) Describe Emergency Response and Casualty management **NO OF PERIODS :** 12 **DATE /MONTH:** JULY	**Students will be able to :** * Identify the steps to maintain playground hygiene * Identify the steps to maintain environmental hygiene	Class Discussion Observation Quizzes	Lecture -Based Instructions Group Learning Kinesthetic Learning	Text Books Websites	Health Education Paramedic and Nursing Education
Topic : **SPORTS AND FITNESS** **Sub topic :** (1)Describe the criteria for	**Students will be able to:** *Demonstrate the Knowledge	Class Discussions	Lecture -Based Instructions	Text Books	Sports Management

selecting yearly sports activities (2) Identify resources required for organising sports competitions (3) Conduct Fitness Sessions **NO OF PERIODS :** 19 **DATE /MONTH:** AUGUST	of Planning a Sports Day * Know about the fixture of Knock out tounament * Learn warm-up and cool down exercises	Observations Quizzes	Group Learning Kinesthetic Learning	Websites	Health Education
EMPLOYABILITY SKILLS **Topic:** **COMMUNICATION SKILLS** **Sub topic:** (1) Introduction to Communication (2) Verbal Communication (3) Nonverbal communication (4) Pronunciation Basics (5)Communication Styles - Assertiveness (6) Saying NO- Refusal Skills (7) Writing Skills -Parts of speech (8) Writing Skills -Sentence (9) Greetings and Introduction	**Students will be able to:** * Identify the elements of communication *List the 7'C of Communication * Use the right non verbal Communication at work * Demonstrate the knowledge of using refusal skills	Class Discussions Observations Quizzes Homework	Lecture -Based Instructions Group Learning Individual Learning Self Reflection	Text Books Websites	English Psychology Philosophy

(10) Talking about self (11) Asking question (12) Talking about family (13) Describing Habits and Routines (14)Asking for Directions **NO OF PERIODS :** 15 **DATE/MONTH :** SEPTEMBER					
Topic : **SELF MANAGEMENT** **Sub topic :** (1)Strength and Weakness analysis (2) Grooming (3) Personal Hygiene (4) Team Work (5) Networking Skills (6) Self Motivation (7) Goal Setting (8) Time Management **NO OF PERIODS :** 10 **DATE /MONTH** OCTOBER	**Students will be able to:** *List your own strength and weaknesses * List the benefits of maintaining personal hygiene * Explain the meaning of Team *Describe the benefits of working in a team	Class Discussions Observations Quizzes Homework	Lecture -Based Instructions Group Learning Individual Learning Self Reflection	Text Books Websites	Psychology Philosophy Management

Topic : **INFORMATION AND COMMUNICATION TECHNOLOGY** **Sub topic :** (1) Introduction to ICT (2) Basic interface of Libreoffice writer (3) Saving ,Closing ,Opening and Printing (4) Formatting text in a Word Document (5)Checking Spelling and Grammer (6) Inserting Lists, Tables ,Pictures and Shapes (7) Header ,Footer and Page Number (8) Tracking changes in Libreoffice Writer **NO OF PERIODS :** 15 **DATE /MONTH:** OCTOBER	**Students will be able to:** *Explain what a word processor is. *List the advantages of using a word processor *Identify some of the basic icons of the Tool Bar *Learn to Insert a Header in a Document	Homework Class Discussions Observations Quizzes	Lecture -Based Instructions Group Learning Individual Learning	Text Books Websites	Computer Science English
Topic: **ENTREPRENEURSHIP SKILL** **Sub topic :** (1) Introduction to	**Students will be able to:** *Describe the meaning of	Class Discussions	Lecture -Based Instructions	Text Books	Management

Entrepreneurship (2) Values of an Entrepreneur (3) Attitude of an Entrepreneur (4) Thinking like an Entrepreneur (5) Coming up with a Business Idea (6) Understanding the Market (7) Business Planning **NO OF PERIODS :** 10 **DATE /MONTH** NOVEMBER	Entrepreneurship * Describe the difference between entrepreneurship and employment *Explain the principles of idea creation	Observations Quizzes Homework	Group Learning Individual Learning	Websites	Finance Marketing Economics Accounting
Topic : **GREEN SKILLS** **Sub topic :** 1) Sectors of Green Economy 2) Policies for a Green Economy 3) Stakeholders in Green Economy 4) Government and Private Agencies **NO OF PERIODS :** 10 **DATE /MONTH** NOVEMBER	**Students will be able to:** *Identify important sectors of green economy * Explain important policies for a green economy	Class Discussions Observations Quizzes Homework	Lecture -Based Instructions Group Learning Individual Learning	Text Books Websites	Science Engineering Technology Mathematics Social Studies

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

2025-26

CLASS : XI

SUBJECT: PHYSICAL EDUCATION

NAME OF THE TEACHER: GEETA SRIVASTAVA

Topic/ No. of Periods Date	Learning Outcomes	Assessment Tools (a) for Identifying Learning Gaps (b) for determining understanding level	Teaching Learning Strategies/ Activities	Resources	Inter-Disciplinary approach
Topic : **CHANGING TRENDS IN PHYSICAL EDUCATION** **Sub topics:** (1) Concept, Aims & Objectives of Physical Education	**Students will be able to :** *Recognise the concept, aim and the Objectives of Physical Education	Home work	Lecture Based Instructions Group Learning	Text Books Website	History Psychology

(2) Development of Physical Education in India (3)Changing trends in sports- playing surface,wearable gear, and sports equipment (4)Career options in Physical Education (5)Khelo India Program and Fit India Program **NO OF PERIODS :** 15 **DATE /MONTH:** APRIL	*Identify the Post Independence development in Physical Education *Categorise the changing trends in sports playing surface ,wearable gears sports equipment, technological * Explore different career options in Physical Education *Make out the development of Khelo India and Fit India Program	Class discussion Assignment	Kinesthetic Learning Expeditionary Learning		Computer Science Mathematics
Topic: **<u>Olympic Value Education</u>** **<u>Sub topics:</u>** (1) Olympism - Concept and olympic values(excellence, friendship& respect) (2)Olympic Value Education (3)Ancient and Modern Olympics (4)Olympics -Symbols, motto,Flag, Oath and Anthem (5)Olympic Movement Structure **NO OF PEROIDS:** 10 **DATE /MONTH:**	**Students will be able to :** *Incorporate value of olympism in your life *Differentiate between Modern and Ancient Olympic Games ,Paralympics, and Special olympic Games * Identify the Olympic Symbol and Ideals * Describe the structure of olympic Movement	Homework Group Discussion Role Play	Technology-Based Learning Inquiry Based Learning Kinesthetic Learning	Text Book Websites Pictures	Political Science Computer Science History

MAY					
Topic: **<u>PHYSICAL EDUCATION AND SPORTS FOR CHILDREN WITH SPECIAL NEEDS</u>** **Sub topic:** (1) Concept of Disability and Disoder (2)Types of Disability,its causes & nature(intellectual disability,physical disability) (3)Disability Etiquettes (4)Aims and Objectives of Adaptive Physical Education (5)Role of Various Professionals for children with special needs **NO OF PERIODS:** 12 **DATE/MONTH** JULY	**Students will be able to :** *Identify the concept, types of Disability and Disorder *Adhere to and respect children with special needs by following etiquttes * Identify possibilities and scope in adaptive Physical Education *Relate various types of Professional support for children with special needs, along with their roles and responsibilities	Group Discussion Assignment Observation	Lecture-Based Learning Technology Based Learning Kinesthetic Learning	Text Book Websites	Sociology Psychology Computer Science Physiology Physiotherapy
Topic: **<u>PHYSICAL FITNESS ,WELLNESS AND LIFESTYLE</u>** **Sub topic:** (1) Meaning and Importance of Wellness Health and Physical Fitness (2) Components/Dimensions of	**Students will be able to:** *Explain Wellnessand its importance and define the componenets of wellness	Home work Short Assignment Observation	Lecture-Based Learning Individual- Based Learning Game-Based Learning	Text Book Websites	Physiology Anatomy Sociology

Wellness, Health and Physical Fitness (3) Traditional Sports& Regional Games for promoting Fitness (4) Leadership through Physical Activity and sports (5) Introduction to First Aid-PRICE **NO OF PERIODS :** 10 **DATE/MONTH** JULY	*Dintinguish between Skill -related and health-related components *Illustrate Traditional Sports and *Relate Leadership through physical activity and sports *Illustrate the different steps used in First Aid -PRICE	Role Play	Technology - Based Learning		Psychology Physiotherapy
Topic: **<u>TRAINING AND DOPING IN SPORTS</u>** **Sub topic:** (1) Concept and Principles of Sports Training **(**2) Training Load: OverLoad, Adaptation and Recovery (3) Warming Up and Limbering Down types, methods, and importance (4) Concept of Skill, Technique, Tactic & Strategy (5) Concept of Doping and its disadvantages **NO OF PERIODS:** 14 **DATE/MONTH:** AUGUST	**Students will be able to:** *Understand the concept and Principles of sports training *Summarise Training Load and its concept * Understand the concept of warming up up & Limbering down in sports training and their types,method & importance *Acquire the ability to differentiate between the skill,technique,tactics& strategy to sports training * Interpret the concept of doping	Quizzes Assignment Observation	Individual Learning Inquiry-Based Learning Kinesthetic Learning	Text Book Websites	Physiology Physics Anatomy Psychology

Topic : **<u>FUNDAMENTALS OF ANATOMY , PHYSIOLOGY IN SPORTS</u>** **Sub topic:** **(**1) Definition and importance of Anatomy and Physiology in Exercise and Sports (2) Functions of the Skeleton System, Classification of Bones and Types of Joint (3) Properties and Functions of Muscles (4) Structure and Functions of Circulatory System and Heart (5) Structure and Functions of Respiratory System **NO OF PERIODS:** 15 **DATE/MONTH:** AUGUST	**Students wil be able to:** *Identify the importance of Anatomy and Physiology * Recognise the functions of the Skeleton * Understand the functions of Bones and identify various types of joints * Figure out the properties and functions of muscles and understand how they work * Identify and analyse the layout and functions Respiratory and Circulatory System	Quizzes Exit Tickets Questioning Class Discussion	Lecture- Based Instructions Technology-Based Learning Expeditionary Learning	Text Book Websites Pictures Digital Tools	Anatomy Physiology Chemistry Computer Science
Topic: **<u>FUNDAMENTALS OF KINESIOLOGY AND BIOMECHANICS IN SPORTS</u>** **Sub topics:** (1)Dimensions and importance of Kinesiology and Biomechanics in Sports (2) Principles of Biomechanics	**Students will be able to:** *Understand Kinesiology and Biome-chanics with their application in sports * Explain Biomechanical principles and their utilization in sports and physical	Homework Assignment Observation	Lecture -Based Instructions Kinesthetic Learning Group-Based Learning	Text book Websites	Anatomy Physiology Physics Anthropometry

(3) Kinetics and Kinematics in sports (4)Types of body movements- Flexion, Extension, Abduction, Adduction, Rotation, Circumduction,Supination and Pronation (5) Axis and Planes - Concept and its application in the body movements **NO OF PERIODS :** 15 **DATES/MONTH:** AUGUST	education * Illustrate fundamental body movements and their basic patterns * Learn about the Axis and Planes and their application with body movements				Mathematics
Topic : **YOGA** **Sub topics :** (1) Meaning and importance of Yoga (2) Introduction to Ashtanga Yog (3) Yogic Kriya (Shat Karma) (4) Pranayam and its types (5) Active Lifestyle and stress management through Yoga **NO OF PERIODS :** 14 **DATE/MONTH :** SEPTEMBER	**Students will be able to:** * Understand the the concept and meaning of Yoga * Identify the Asanas, Pranayam, Meditation and Yogic Kriyas * Know about relaxation technique for improving concentration	Home work Observation Quizzes	Kinesthetic Learning Group Learning Individual Learning	Text books Websites Pictures	Anatomy Physiology Chemistry Psychology
Topic : **<u>PSYCHOLOGY AND SPORTS</u>** **Sub topics:** (1) Definition and importance	**Students will be able to :** *Identify the role of Psychology in	Homework	Lecture-Based Instructions	Text Books	Psychology

of Psychology in Physical Education and Sports (2) Developmental characteristics at at different stages of development (3) Adolescent Problems & their management (4) Team Cohesion and Sports (5) Introduction to Psychological Attributes: Attention, Resilence, Mental toughness **NO OF PERIODS:** 12 **DATE/MONTH:** OCTOBER	Physical Education and Sports * Differentiate characteristics of growth and development *Explain the issues related to adolescent behaviour and Team Cohesion in Sports *Correlate the Psychological concepts with the sports and athlete specific situation	Quizzes Assignment Observation	Technology -Based Learning Group Learning Individual Learning	Websites Pictures	Biology Sociology
Topic : **<u>TEST, MEASUREMENT & EVALUATION</u>** **Sub topic:** (1) Define Test,Measurement and Evaluation (2) Importance of Test ,Measurement and Evaluation in Sports (3) Calculation of BMI ,Waist - Hip Ratio, Skin Fold measurement (4) Somatotypes- Endomorphy, Mesomorphy and Ectomorphy (5) Measurement of health related fitness **NO OF PERIODS :** 15 **DATE /MONTH :** NOVEMBER	**Students will be able to :** *Define the terms Test,Measurement, and Evaluation *Discuss the importance of Measurement and Evaluation processes *Understand BMI: a popular clinical standard and its computation * Differentiate between Endomorphy, Mesomorphy & Ectomorphy *Describe the procedure of Anthropometric measurement	Observation Assignment Quizzes	Lecture-Based Instructions Group Learning Kinesthetic Learning Individual Learning	Text Books Websites	Mathematics Statistics Anthropometry

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)-2025-26

CLASS-XI SUBJECT-BUSINESS STUDIES NAME-SAVITA GUPTA

Topic/ No.of Periods/ Date	Learning Outcomes	Assessment tools(a) for identifying learning gaps(b) for determining understanding level	Teaching learning strategies/ Activities	Resources	Interdisciplinary approach
Part-A Unit-1 Evolution and Fundamentals of Business 18 Periods April	**After going through the Unit, the students will be able to:** ·To acquaint the History of Trade and Commerce in India ·Understand the meaning of business with special reference to economic and non-economic activities. · Discuss the characteristics of business. · Understand the concept of business, profession and employment. · Differentiate between business, profession and employment · Appreciate the economic and social objectives of business. · Examine the role of profit in business · Understand the broad categories of business activities- industry and commerce · Describe the various types of industries. · Discuss the meaning of commerce, trade and auxiliaries to trade. · Discuss the meaning of different types of trade and auxiliaries to trade. .understand the concept of risk as	Questions asked to test their knowledge about business and other concepts.	Problem based learningMind Maps, storytelling, Case studies & Role Play	NCERT	Related to History.

	a special feature of business. .Examine the nature and causes of human risk.				
Unit-2 Forms of Business organizations 24 Periods May	· List the different forms of business organizations and understand their meaning. · Identify and explain the concept, merits and limitations of Sole Proprietorship · Identify and explain the concept, merits and limitations of a Partnership firm. · Understand the types of partnership based on duration and on the basis of liability. State the need for registration of a partnership firm. · Discuss types of partners –active, sleeping, secret, nominal and partner by estoppel · Understand the concept of Hindu Undivided Family Business · Identify and explain the concept, merits and limitations of Cooperative Societies. · Understand the concept of consumers, producers, marketing, farmers, credit and housing cooperatives. · Identify and explain the concept, merits and limitations of private and public companies. · Understand the meaning of one person company. · Distinguish between a private company and a public company · Highlight the stages in the formation of a company. · Discuss the important documents used in the various stages in the formation of a	Questions will be asked for identifying various forms of business.	Problem based learningMind Maps, storytelling, Case studies & Role Play	NCERT	Related to Business environment

	company. · Distinguish between the various forms of business organizations. · Explain the factors that influence the choice of a suitable form of business organization.				
Unit-3- Public, Private and Global Enterprises 18 Periods July	· Develop an understanding of Public sector and private sector enterprises · Identify and explain the features, merits and limitations of different forms of public sector enterprises · Develop an understanding of Global Enterprises, joint ventures and public private partnership by studying their meaning and features.	Pre Knowledge test.	Mind Maps, storytelling & Role Play	NCERT	Related to Economics
Unit 4: Business Services 18 Periods July August	Understand the meaning and types of business services. · Discuss the meaning and types of Business service Banking · Develop an understanding of difference types of bank account · Develop an understanding of the different services provided by banks · Recall the concept of insurance · Understand Utmost Good Faith, Insurable Interest, Indemnity, Contribution, Doctrine of Subrogation and Causa Proxima as principles of insurance · Discuss the meaning of different types of insurance-life, health, fire, marine insurance. · Understand the utility of different telecom	Pre Knowledge test	Discussions,Mind maps, Story telling	NCERT	Related to Economics

	services				
Unit 5: Emerging Modes of Business 10 Periods August	· Give the meaning of e-business. · Discuss the scope of e-business. · Appreciate the benefits of e-business · Distinguish e-business from traditional business.	Questions will be asked in the class to define e-business.	Discussions. Mind Map	NCERT	
Unit 6: Social Responsibility of Business and Business Ethics 12 Periods August September	· State the concept of social responsibility. · Examine the case for social responsibility · Identify the social responsibility towards different interest groups. · Appreciate the role of business in environment protection · State the concept of business ethics. · Describe the elements of business ethics	Pre Knowledge test	Mind Maps & Role Play	NCERT	
	September: Revision for I st term				
Part-B Unit 7: Sources of Business Finance 30 Periods October	· State the meaning, nature and importance of business finance · Classify the various sources of funds into owners' funds. · State the meaning of owners' funds. · Understand the meaning of Global Depository receipts, American Depository Receipts and International Depository Receipts · State the meaning of borrowed funds.	Pre Knowledge test	Problem based learning Mind maps Story telling	NCERT	Related to Eco.

	· Discuss the concept of debentures, bonds, loans from financial institutions and commercial banks, Trade credit and inter corporate deposits. · Distinguish between owners' funds and borrowed funds				
Unit 8: Small Business and Enterprises 16 Periods November	Understand the concept of Entrepreneurship Development (ED), Intellectual Property Rights · Understand the meaning of small business · Discuss the role of small business in India · Appreciate the various Government schemes and agencies for development of small scale industries. NSIC and DIC with special reference to rural, backward area.	Questions will be asked to give concept of small business	Problem Based Learning Mind maps Story telling	NCERT	Related to Eco
Unit 9: Internal Trade 30 Periods November December	· State the meaning and types of internal trade. · Appreciate the services of wholesalers and retailers · Explain the different types of retail trade · Highlight the distinctive features of departmental stores, chain stores and mail order business. · Understand the concept of GST	Questions will be asked to identify the various concepts of trade.	Project based learningMind maps, Role play Story telling	NCERT	
	Instructions regarding project work.				
Unit 10: International Trade 14 periods	Understand the concept of international trade. · Describe the scope of international trade to the nation and business firms	Pre Knowledge test	Discussions,Mind Maps Story telling	NCERT	Related to Eco

December	· State the meaning and objectives of export trade. · Explain the important steps involved in executing export trade · State the meaning and objectives of import trade. · Discuss the important steps involved in executing import trade · Develop an understanding of the various documents used in international trade. · Identify the specimen of the various documents used in international trade. · Highlight the importance of the documents needed in connection with international trade transactions · State the meaning of World Trade Organization. · Discuss the objectives of World Trade Organization in promoting international trade				
	Revision of Syllabus and practice of DAV sample papers				

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)-2025-26

CLASS-XI SUBJECT-ACCOUNTANCY NAME-SAVITA GUPTA

Topic/ No.of Periods/ Date	Learning Outcomes	Assessment tools(a) for identifying learning gaps(b) for determining understanding level	Teaching learning strategies/ Activities	Resources	Interdisciplinary approach
Part-A Unit-1 Theoretical framework 25 Periods April	**After going through this Unit, the students will be able to:** · describe the meaning, significance, objectives, advantages and limitations of accounting in the modern economic environment with varied types of business and non-business economic entities. · identify / recognise the individual(s) and entities that use accounting information for serving their needs of decision making. · explain the various terms used in accounting and	Questions asked to identify concepts of Accountancy	Problem based Learning. Case Studies, Role play,Story telling.	T S Grewal & D K Goel	Related to Mathematics

	differentiate between different related terms like current and non-current, capital and revenue. · give examples of terms like business transaction, liabilities, assets, expenditure and purchases · explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year. · differentiate among income, profits and gains. · state the meaning of fundamental accounting assumptions and their relevance in accounting. · describe the meaning of accounting assumptions and the situation in which an assumption is applied during the accounting process. · explain the meaning and objectives of accounting standards. · appreciate that various accounting standards developed nationally and globally are in practice for				

	bringing parity in the accounting treatment of different items. · acknowledge the fact that recording of accounting transactions follows a double entry system. · explain the basics of recording accounting transaction and to appreciate that accrual basis is a better basis for depicting the correct financial position of an enterprise. · Understand the need of IFRS · Explain the meaning, objective and characteristic of GST.				
Unit-2 Accounting process 115 Periods May July August September	· explain the concept of accounting equation and appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of accounting equation.	Pre Knowledge test	Project based learningMind Maps, Storytelling & Role play	D.K. Goel & TS Grewal	Related to Mathe-matics

	· explain the effect of a transaction (increase or decrease) on the assets, liabilities, capital, revenue and expenses. · appreciate that on the basis of source documents, accounting vouchers are prepared for recording transactions in the books of accounts. · develop the understanding of recording of transactions in a journal and the skill of calculating GST. · explain the purpose of maintaining a Cash Book and develop the skill of preparing the format of different types of cash books and the method of recording cash transactions in Cash books. · describe the method of recording transactions other than cash transactions as per their nature in different subsidiary books . · appreciate that at times bank balance as indicated by cash book is different from the				

	bank balance as shown by the pass book / bank statement and to reconcile both the balances, a bank reconciliation statement is prepared. · develop understanding of preparing bank reconciliation statements. · appreciate that for ascertaining the position of individual accounts, transactions are posted from subsidiary books and journal proper into the concerned accounts in the ledger and develop the skill of ledger posting. · explain the necessity of providing depreciation and develop the skill of using different methods for computing depreciation. · understand the accounting treatment of providing depreciation directly to the concerned asset account or by creating provision for depreciation accounts. · appreciate the method of asset disposal through the				

	concerned asset account or by preparing an asset disposal account. · appreciate the need for creating reserves and also making provisions for events which may belong to the current year but may happen in next year. · appreciate the difference between reserve and reserve fund. · state the need and objectives of preparing trial balance and develop the skill of preparing trial balance. · appreciate that errors may be committed during the process of accounting. · understand the meaning of different types of errors and their effect on trial balance. · develop the skill of identification and location of errors and their rectification and preparation of suspense account. INSTRUCTIONS REGARDING PROJECT WORK				

	REVISION FOR I st TERM EXAM				
Part-B Unit-3 Financial Statements of Sole Proprietorship 60 Periods October November December	state the meaning of financial statements the · Purpose of preparing financial statements. · state the meaning of gross profit, operating profit and net profit and develop the skill of preparing trading and profit and loss accounts. · explain the need for preparing a balance sheet. · understand the technique of grouping and marshalling of assets and liabilities. · appreciate that there may be certain items other than those shown in trial balance which may need adjustments while preparing financial statements. · develop the understanding and skill to do adjustments for items and their presentation in financial statements like depreciation, closing stock, provisions, abnormal loss etc. · develop the skill of preparation of	Questions asked to identify the concepts.	Problem Based Learning Mind Maps, Role play,Story telling	T S Grewal & D K Goel	Related to Mathematics

	trading and profit and loss account and balance sheet. state the meaning of incomplete records and their uses and limitations. · develop the understanding and skill of computation of profit / loss using the statement of affairs method.				
	Revision of syllabus along with practice of DAV Sample Papers				

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP) CLASS: XI
NAME OF THE TEACHER: PRIYAMVADA MISHRA
SUBJECT: BIOLOGY

Month	Chapter Name	Subject	Periods	Learning Outcomes	Teaching Learning Strategies/ Activities	Resources	Assessment Tools (a) for Identifying Learning Gaps (b) for determining understanding level	Interdisciplinary Approach
April	**Unit-I Diversity of Living Organisms** **Ch.1- The Living World** ●Biodiversity; ●Need for classification; three domains of life; ●taxonomy and systematics; concept of species and taxonomical ●Hierarchy; ●Binomial nomenclature	**Biology**	07	Understand the characteristics of living organisms: Describe features such as growth, reproduction, metabolism, cellular organization, consciousness, etc. Understand how classification helps in identification, study, and understanding of organisms.	Brainstorming, case study debate, Demonstration Lab Activity, Use of charts	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Worksheets, quizzes, concept map, reflection, lab practical,	**Mathematics:** Used in taxonomy (Hierarchical classification), statistics for biodiversity studies, and growth rate calculations.

April	**Ch.2 - Biological Classification** Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses, and Viroids, Prions.	**Biology**	07	**Understand the characteristics of each kingdom:** Study the major features of Monera, Protista, Fungi, Plantae, and Animalia. **Differentiate among major microbial groups:** Recognize key differences between	Hands-on Experiments (Lab-Based Learning), Case Studies & Discussions, Group Work / Jigsaw Activity	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	MCQ, Q&A, group presentation, Laboratory work	**Chemistry:** Understanding cell composition, biochemical pathways in different organisms (e.g., bacterial metabolism).
May	**Ch.3 - Plant Kingdom** Classification of plants into major groups; Salient & distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae & Angiosperms**.**	**Biology**	07	Understand the classification of the Plant Kingdom: Describe major plant groups—Algae, Bryophytes**,** Pteridophytes, Gymnosperms, and Angiosperms.	Group discussion, chart on metal and non-metal properties,	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Quiz, chart metal and non-metal	**Chemistry:** Understanding of pigments (Chlorophyll, carotenoids), plant biochemistry and photosynthesis, s.
July	**Ch.4 - Animal Kingdom** Salient features and classification of animals, non-chordates up to	**Biology**	06	**Classify animals into major phyla:** Identify and describe key characteristics of invertebrate phyla (e.g., Porifera, Cnidaria,	Data interpretation, group discussion, indicators analysis	Textbooks Digital platforms Interactive tools	Diagnostic worksheet, MCQ	**Chemistry:** Biochemical processes like respiration, excretion, and

	phyla level and chordates up to class level (salient features and at a few examples of each category**).**			Arthropoda) and vertebrates (Chordata).	Chemical Properties,	Class activities Worksheets Assessments and feedback tools		digestion in animals
July	**Unit-II Structural Organization in Plants and Animals** **Chapter 5 - Morphology of Flowering Plants** Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae	**Biology**	07	Identify and describe the basic parts of flowering plants: Root, stem, leaf, inflorescence, flower, fruit, and seed. Classify types of roots, stems, and leaves: Differentiate based on structure, modifications, and functions (e.g., taproot vs fibrous root, tendrils, phyllodes).	Concept Mapping & Visual Learning, Hands-On Activities / Lab Work, Group Discussion and Peer Learning,	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Role play, Quiz, Practical	**Physics** Mechanics of plant support and movement (e.g., tendrils), and principles of water transport.
July	**Ch-6 - Anatomy of Flowering Plants** Anatomy and functions of tissue systems in dicots and monocots.	**Science**	04	**Understand the internal structure of plants:** Describe the anatomy of roots, stems, and leaves in both dicots and monocots.	Group discussion, Hands-On Activities / Lab Work, Group Discussion	Textbooks Digital platforms Interactive tools Class activities	Worksheets, quizzes Diagnostic worksheet, MCQ	**Chemistry:** Composition and function of plant cell walls (cellulose, lignin), and

					and Peer Learning	Worksheets Assessments and feedback tools		processes like lignification
July	**Ch.7: Structural Organization in Animals** Morphology, Anatomy, and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.	Science	06	Describe the anatomy of earthworm, cockroach, and frog Understand the morphology and internal organ systems (digestive, circulatory, nervous, reproductive, etc.) of these representative organisms.	Poster making, PPT on conservation efforts	Textbooks Digital platforms Interactive tools Class activities	Flowcharts, skills, oral discussion	**Geography:** Habitat-specific structural adaptations in organisms like cockroach (terrestrial) or frog (amphibious).
August	**Unit-III Cell: Structure and Function** **Ch.8** – Cell-The Unit of Life Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell	**Science**	06	**Describe the structure and functions of cell organelles:** Explain the roles of nucleus, endoplasmic reticulum, Golgi apparatus, mitochondria, chloroplasts, lysosomes, ribosomes, etc. **Understand cell membrane structure**	Concept Mapping and Visual Aids, Storytelling / Historical Context, Hands-On Learning with Punnett Squares	Textbooks Digital platforms Interactive tools Class activities	Short answer, group report	**History of Science:** Contributions of scientists like Robert Hooke, Schleiden, Schwann, and Virchow to cell theory. **Mathematics:** Surface area-to-volume ratio, estimation of cell

	membrane, cell wall; cell organelles – structure & function; endomembrane system, endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure & function); nucleus.			**and transport mechanisms:** Describe fluid mosaic model and passive/active transport processes.				sizes, and use of scale in diagrams and microscopy.
August	**Chapter 10 – Cell Cycle and Cell Division** Cell cycle, mitosis, meiosis and their significance	**Science**	04	Describe each phase (prophase, metaphase, anaphase, telophase) with changes in chromosomes and cell structure.	case study, diagram flow Group discussion, real-life cases,	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Worksheets, quizzes Diagnostic worksheet, MCQ	**Physics**: Concepts of tension and force during chromosome movement, and microscopy used to observe cell stages.

August	**Unit-IV Plant Physiology** **Ch. 11- Photosynthesis in Higher Plants** Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis.	**Biology**	07	Understand the role of chloroplasts, thylakoids, pigments (chlorophyll, carotenoids), and light-harvesting complexes. **Explain the mechanism of photosynthesis:** Describe the **light reactions** (photophosphorylation) and **dark reactions** (Calvin cycle), including electron transport and ATP/NADPH formation.	Role play, case study, diagram flow Practical	Textbooks Digital platforms Interactive tools Class activities Worksheets	MCQ, Q&A, role play evaluative	**Mathematics:** Graphical representation of photosynthetic rates, limiting factor analysis, and stoichiometry of equations.
August	**Ch.12 – Respiration in**	**Biology**	05	**Understand the concept of cellular respiration:**	Map work, debate on	Textbooks	Diagram labeling, worksheet	**Physics**: Energy transformations,

	Plants Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.			Explain how plants break down food to release energy. **Differentiate between aerobic and anaerobic respiration:** Understand oxygen requirement, efficiency, and end products in both types.	subsidies, chart on magnetic fields	Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools		thermodynamics (exergonic/endogonic reactions), and gas exchange mechanics. **Environmental science**: Role of plant respiration in carbon cycling and its relationship with photosynthesis and ecosystem balance.
September	**Ch. 13- Plant - Growth and Development** Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation;	07	**Biology**	**Understand the concept of growth in plants:** Define growth, differentiate between determinate and indeterminate growth, and describe growth phases (lag, log, and stationary). **Identify plant growth regulators (PGRs):** Describe the types, functions, and	Map work, debate on subsidies, chart on magnetic fields	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Diagram labeling, worksheet	**Physics:** Light intensity, photoperiod, temperature effects on growth (e.g., vernalization), and mechanics of movement. **Computer science:** Use of modeling software to

	sequence of developmental processes in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.			applications of auxins, gibberellins, cytokinins, ethylene, and abscisic acid.				simulate plant growth under different environmental conditions.
September	**Unit-V Human Physiology** **Chapter-14: Breathing and Exchange of Gases** Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema,	**07**	**Biology**	Understand the mechanism of breathing: Describe inspiration and expiration and the role of diaphragm and intercostal muscles. Differentiate between respiration and breathing: Clarify cellular respiration vs mechanical breathing. Describe human respiratory system structure and function: Identify parts such as nasal passage, trachea, lungs, alveoli, and understand their roles	Flow out charts worksheet, debate on subsidies, chart on exchange of gases	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Diagram labeling, worksheet	**Chemistry:** Role of gases (O_2, CO_2), diffusion principles, acid-base balance (carbonic acid-bicarbonate buffer system). **Physics**: Gas laws (Boyle's and Dalton's Law), mechanics of breathing, and pressure-volume relationships in lungs.

	occupational respiratory disorders.							
September	**Chapter-15: Body Fluids and Circulation** Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure**.**	06	**Biology**	Understand the composition and function of body fluids**:** Describe the components and roles of blood and lymph in transport and immunity. Identify different types of blood cells and their functions: Explain the structure and role of RBCs, WBCs, and platelets. Understand blood groups and transfusion: Describe ABO and Rh group systems and their importance in transfusion	Flow out charts worksheet, debate on subsidies, chart of heart	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Comparative worksheet, quiz Diagram labeling, worksheet	**Chemistry**: Blood composition (plasma proteins, electrolytes), pH buffering, **and** oxygen binding to hemoglobin. **Mathematics:** Calculation of cardiac output, pulse rate, blood pressure readings, and ECG interpretation**.**
October	**Chapter-16: Excretory**	**07**	**Biology**	**Understand the concept of excretion:**	Flow out charts	Textbooks	Comparative worksheet, quiz	**Chemistry: -** Chemical

	Products and their Elimination Modes of excretion - ammoniotelic, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.			Define excretion and explain its importance in homeostasis and removal of nitrogenous wastes. **Differentiate between excretory products:** Compare ammoniotelic, ureotelic, and uricotelic organisms based on their waste forms. **Describe the human excretory system:** Identify and explain the structure and function of kidneys, ureters, urinary bladder, and urethra	worksheet, debate on subsidies, chart of excretory system	Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Diagram labeling, worksheet	composition of urine, acid-base balance, detoxification, and nitrogen metabolism. **Mathematics: -** Calculation of glomerular filtration rate (GFR), urine output, and analysis of concentration levels.
October	**Chapter-17: Locomotion and Movement** Types of	**04**	**Biology**	**Understand the concept of movement and locomotion:**	Flow out charts worksheet, debate on	Textbooks Digital platforms	Comparative worksheet, quiz Diagram labeling, worksheet	**Physics:** Biomechanics of movement, levers and joints, forces

	movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.			Differentiate between movement and locomotion and identify their types in humans and animals. **Describe types of movements in cells and organisms:** Learn about amoeboid, ciliary, and muscular movement.	subsidies, chart of skeletal muscles	Interactive tools Class activities Worksheets Assessments and feedback tools		acting on the body, and motion dynamics. **Chemistry:** Role of ATP in muscle contraction, ionic exchange (Ca^{2+}, Na^{+}, K^{+}), and biochemistry of muscle fibers.
October	**Chapter-18: Neural Control and Coordination** Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse	05	**Biology**	Describe the structure and functions of cerebrum, cerebellum, medulla oblongata, hypothalamus, and spinal reflexes.	Flow out charts worksheet, debate on subsidies, chart of nervous system	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Comparative worksheet, quiz Diagram labeling, worksheet	**Chemistry:** Understanding the chemical structure of hormones (peptides, steroids, amines), their synthesis, and their mechanisms of action.

October	**Chapter- 19: Chemical Coordination and Integration** Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease.	**06**	**Biology**	**Understand the concept of chemical coordination:** Describe how hormones act as chemical messengers that regulate various body functions. **Identify the glands of endocrine system:** Learn the structure and function of major endocrine glands, including the pituitary, thyroid, parathyroid, adrenal glands, pancreas, and gonads.	Flow out charts worksheet, debate on subsidies, chart of different types of charts	Textbooks Digital platforms Interactive tools Class activities Worksheets Assessments and feedback tools	Comparative worksheet, quiz Diagram labeling, worksheet	**Chemistry:** Understanding the chemical structure of hormones (peptides, steroids, amines), their synthesis, and their mechanisms of action.

October	**Revision + Internal Assessments**	**07**	**All Syllabus**	As needed	Reinforce concepts, bridge learning gaps, and prepare for exams.	Practice papers, group revision games, mock tests	Worksheets Assessments and feedback tools	Mock tests, oral revision

MTHEMATICS – CLASS XI

ANNUAL CURRICULUM AND PEDAGOGICALPLAN (ACPP) 2025-26

Topic/No. of periods/Date	**Learning Outcomes**	**Assessment Tools** **(a) For Identifying Learning Gaps** **(b) For Determining Understanding Level**	**Teaching Learning Strategies/Activities**	**Resources**	**Inter Disciplinary approach**

April' 2025 1. Sets 2. Relations and Functions No. of periods: 30	(1) Sets The students will learn about the: Sets and their representations, Empty set Finite and Infinite sets, Equal sets. Subsets, Subsets of a set of real numbers especially intervals (with notations) Power set Universal set. Venn diagrams Union and Intersection of sets Difference of sets. Complement of a set. Properties of complement. (2) Relations and Functions The students will learn about the: Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R). Definition of relation pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation Pictoral representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational modulus, signum exponential, logarithmic and	(a) Assignment Sheets: Given as homework at the end of the topic - Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking (b) Class Tests: Conducted to evaluate understanding - Oral Tests: To assess students' ability to explain concepts - Worksheets: To practice problems and reinforce learning - Re-tests: Conducted based on student performance	- Lecture Method: Used to introduce concepts and explain theorems. - Learning by Doing: Students practice problems and participate in group activities. - Consistency: Regular practice and review of concepts - Understanding: Focus on understanding concepts rather than memorizing formulas - Group Study: Collaborate with peers to discuss problems and solutions - Seek Help: Ask teachers for assistance when needed.	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional practice problems - Online Resources: CBSE Website and related Links. lesson plans and study materials	(1) Sets ` - Computer Science: Sets are used in computer science to represent collections of data and perform operations on them. - Statistics: Sets are used in statistics to define sample spaces and events. - Logic: Sets are used in logic to represent and analyse arguments. - Data Analysis: Sets are used in data analysis to identify patterns and relationships. (2)Relations and Functions - Computer Science: Relations and functions are fundamental concepts in programming, data structures, and algorithms. - Physics: Functions are used to model physical phenomena, such as motion, energy, and forces. - Economics: Functions are used to model economic systems, supply and demand, and cost-benefit analysis. - Biology: Functions can be used to model population growth, ecosystem dynamics, and biochemical processes.

	greatest integer functions, with their graphs. Sum difference product and quotients of functions				
May' 2025 **1. Trigonometric Functions** **No. of periods: 28**	**1. Trigonometric Functions** **The students will learn about the: Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another.** **Definition of trigonometric functions with the help of unit circle. Truth of the identity sin2x, cos2x = 1, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs.** **Expressing sin (x ± y) and cos (x ± y) in terms of sinx, siny. cosx and their simple applications. Deducing identities like the following:** **tan(x ± y) =** **tan x ± tan y/(1 ∓ tanx.tany),** **(i) cot (x + y) =** **cotxcoty∓1/(coty ±cotx)** **(ii) sina±sinb=** **2sin(a±b)/2cos(a∓b) /2** **(iii) cosa + cosb =** **2cos (a + b)/2cos (a − b)/2** **cosa-cosb =** **-2sin (a+b)/2sin(a-b)/2** **Identities related to sin2x = 2sinx cosx.** **cos2x = $\cos^2 x - \sin^2 x$,** **tan2 x = $\frac{2\tan x}{(1-\tan^2 x)}$**	**(a) Assignment Sheets: Given as homework at the end of the topic** **- Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking** **(b) Class Tests: Conducted to evaluate understanding** **- Oral Tests: To assess students' ability to explain concepts** **- Worksheets: To practice problems and reinforce learning** **- Re-tests: Conducted based on student performance**	**- Lecture Method: Used to introduce concepts and explain theorems.** **- Learning by Doing: Students practice problems and participate in group activities.** **- Consistency: Regular practice and review of concepts** **- Understanding: Focus on understanding concepts rather than memorizing formulas** **- Group Study: Collaborate with peers to discuss problems and solutions** **- Seek Help: Ask teachers for assistance when needed.**	**Resources** **- NCERT Textbook: Primary resource for learning** **- NCERT Exemplar Book: Additional practice problems** **- Online Resources: CBSE Website and related Links. provide lesson plans and study materials**	**1. Trigonometric Functions** **- <u>Physics</u>: Trigonometric functions are used to describe periodic phenomena, such as sound waves and light waves.** **- <u>Engineering:</u> Trigonometric functions are applied in engineering to design and optimize systems, including bridges, buildings, and electronic circuits.** **- <u>Navigation:</u> Trigonometric functions are used in navigation systems, including GPS and astronomy.** **- <u>Computer Science:</u> Trigonometric functions are used in computer graphics and game development.**

	sin3x cos3x and tan3x etc.				
July' 2025 **(1) Complex Numbers** **(2) Linear Inequalities** **No. of periods: 32**	**(1) Complex Numbers** **The students will learn about the: Need for complex numbers, especially √−1, to be motivated by inability to solve some of the Algebraic equations. properties of complex numbers Argand plane.** **Conjugate of z = (a + ib) is $\bar{z}$= (a + ib)** **Multiplicative inverse of: z = (a+ib) is $\frac{(a-ib)}{(a^2+b^2)}$.** **(3) Linear Inequalities** **The students will learn about the:** **Linear inequalities: Algebraic solutions of linear inequalities in one variable and their representation on the number line.**	**(a)Assignment Sheets: Given as homework at the end of the topic** **- Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking** **(b) Class Tests: Conducted to evaluate understanding** **- Oral Tests: To assess students' ability to explain concepts** **- Worksheets: To practice problems and reinforce learning** **- Re-tests: Conducted based on student performance**	**- Lecture Method: Used to introduce concepts and explain theorems.** **- Learning by Doing: Students practice problems and participate in group activities.** **- Consistency: Regular practice and review of concepts** **- Understanding: Focus on understanding concepts rather than memorizing formulas** **- Group Study: Collaborate with peers to discuss problems and solutions** **- Seek Help: Ask teachers for assistance when needed.**	**Resources** **- NCERT Textbook: Primary resource for learning** **- NCERT Exemplar Book: Additional practice problems** **- Online Resources: CBSE Website and related Links. provide lesson plans and study materials**	**(1) Complex Numbers** **- <u>Electrical Engineering:</u> Complex numbers are used to analyse AC circuits and filter design.** **- <u>Signal Processing:</u> Complex numbers are used in signal processing to represent and analyse signals.** **- <u>Navigation:</u> Complex numbers are used in navigation systems, including GPS and mapping.** **- <u>Quantum Mechanics:</u> Complex numbers are used to describe wave functions and probability amplitudes.** **(1) Linear Inequalities** **- <u>Economics:</u> Linear inequalities are used to model economic systems, including supply and demand curves.** **- <u>Business Studies</u>: Linear inequalities are applied in business to make decisions about production and resource allocation.** **- <u>Engineering:</u> Linear inequalities are used in engineering to design and optimize systems, including control systems.** **- <u>Computer Science</u>: Linear inequalities are used in computer science to solve optimization problems.**
<u>August' 2025</u> **1. Permutations and Combinations** **2. Binomial Theorem** **No. of periods: 27**	**(1) Permutations and Combinations** **The students will learn about the: Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for nPr,**	**(a)Assignment Sheets: Given as homework at the end of the topic** **- Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking**	**- Lecture Method: Used to introduce concepts and explain theorems.** **- Learning by Doing: Students practice problems and participate in group activities.** **- Consistency: Regular practice**	**Resources** **- NCERT Textbook: Primary resource for learning** **- NCERT Exemplar Book: Additional practice problems** **- Online Resources: CBSE**	**1. Permutations and Combinations** **- <u>Computer Science</u>: Permutations and combinations are used in computer science to analyse algorithms and data structures.** **- <u>Statistics</u>: Permutations and combinations are used in statistics to**

	and nCr, and their connections, simple applications. (2) Binomial Theorem The students will learn about the: Historical perspective, statement and proof of the binomial theorem for positive integral indices Pascal triangle and simple applications. The Binomial expansion $(a+b)^n$ has (n+1) terms.	(b) Class Tests: Conducted to evaluate understanding - Oral Tests: To assess students' ability to explain concepts - Worksheets: To practice problems and reinforce learning - Re-tests: Conducted based on student performance	and review of concepts - Understanding: Focus on understanding concepts rather than memorizing formulas - Group Study: Collaborate with peers to discuss problems and solutions - Seek Help: Ask teachers for assistance when needed.	Website and related Links. provide lesson plans and study materials	calculate probabilities and analyse data. - Biology: Permutations and combinations are used in biology to study genetic variation and population dynamics. - Cryptography: Permutations and combinations are used in cryptography to develop secure encryption algorithms (2)Binomial Theorem - Statistics: Binomial theorem is used in statistics to calculate probabilities and analyse binomial distributions. - Computer Science: Binomial theorem is used in computer science to analyse algorithms and data structures. - Engineering: Binomial theorem is used in engineering to model and analyse complex systems. - Finance: Binomial theorem is used in finance to model and analyse financial instruments and risk.
September' 2025 (1) Sequences and Series (2) Revision for Half yearly Exam No. of periods: 29	(1) Sequences and Series The students will learn about the: Arithmetic Progression (A.P.) Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term	(a) Assignment Sheets: Given as homework at the end of the topic - Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical	- Lecture Method: Used to introduce concepts and explain theorems. - Learning by Doing: Students practice problems and participate in group activities.	Resources - NCERT Textbook: Primary resource for learning - NCERT Exemplar Book: Additional practice problems	(1) Sequences and Series - Finance: Sequences and series are used in finance to calculate interest rates, investments, and returns. - Physics: Sequences and series are used in physics to model and analyze

	of a G.P. sum of n terms of a G.P. infinite G.P and its sum, geometric mean (G.M.), relation between A.M. and G.M. **A.M. between two terms** a **and** $b = \frac{(a+b)}{2}$ **G.M. between two terms** a **and** $b = \sqrt{ab}$ **For any two non-negative numbers** a **and** b **A.M.** $\geq$ **G.M.**	**thinking** **(b) Class Tests: Conducted to evaluate understanding** **- Oral Tests: To assess students' ability to explain concepts** **- Worksheets: To practice problems and reinforce learning** **- Re-tests: Conducted based on student performance**	**- Consistency: Regular practice and review of concepts** **- Understanding: Focus on understanding concepts rather than memorizing formulas** **- Group Study: Collaborate with peers to discuss problems and solutions** **- Seek Help: Ask teachers for assistance when needed.**	**- Online Resources: CBSE Website and related Links. provide lesson plans and study materials**	**complex phenomena, such as wave patterns and motion.** **- <u>Computer Science</u>: Sequences and series are used in computer science to analyse algorithms and data structures.** **- <u>Engineering</u>: Sequences and series are used in engineering to design and optimize systems, including control systems and signal processing.**
<u>October' 2025</u> **(1) Straight Lines** **(2)Conic Sections** **No. of periods: <u>24</u>**	**(1) Straight Lines** **The students will learn about the:** **Slope of a line** $Y = mx + c$ **(1)** **Here** m **is the slope of the line(1)** **An angle between two lines.** $\tan^{-1}\theta = \frac{(M-m)}{(1+Mm)}$ **Various forms of equations of a line parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form.** **Distance of a point from a line.** **(2) Conic Sections** **The students will learn about the:** **Sections of a cone: Circles, Ellipse, Parabola, Hyperbola.** **A point, a straight line and a pair**	**(a) Assignment Sheets: Given as homework at the end of the topic** **- Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking** **(b) Class Tests: Conducted to evaluate understanding** **- Oral Tests: To assess students' ability to explain concepts** **- Worksheets: To practice problems and reinforce learning** **- Re-tests: Conducted based on student performance**	**- Lecture Method: Used to introduce concepts and explain theorems.** **- Learning by Doing: Students practice problems and participate in group activities.** **- Consistency: Regular practice and review of concepts** **- Understanding: Focus on understanding concepts rather than memorizing formulas** **- Group Study: Collaborate with peers to discuss problems and solutions** **- Seek Help: Ask teachers for assistance when needed.**	**Resources** **- NCERT Textbook: Primary resource for learning** **- NCERT Exemplar Book: Additional practice problems** **- Online Resources: CBSE Website and related Links. provide lesson plans and study materials**	**(1) Straight Lines** **- <u>Physics</u>: Straight lines are used to describe motion, including velocity and acceleration.** **- <u>Engineering</u>: Straight lines are used in engineering to design and optimize systems, including buildings, bridges, and roads.** **- <u>Computer Science:</u> Straight lines are used in computer graphics and game development to create 2D and 3D models.** **- <u>Navigation</u>: Straight lines are used in navigation systems, including GPS and mapping.** **(2) Conic Sections** **- <u>Physics</u>: Conic sections are used to describe the orbits of planets, satellites, and comets.** **- <u>Engineering:</u> Conic sections are used in engineering to design and optimize systems, including satellite dishes and optical lenses.** **- <u>Astronomy</u>: Conic sections are used to study the orbits of celestial bodies**

	of intersecting lines as a degenerated case of a conic section. **Standard equations and simple properties of parabola, ellipse and hyperbola Standard equation of a circle.**				**and predict astronomical events.** **- <u>Architecture:</u> Conic sections are used in architecture to design and construct buildings and bridges.**
<u>November' 2025</u> **(1) Three Dimensional Geometry** **(2) Limits and Derivatives** **No. of periods: <u>28</u>**	**(1) Three Dimensional Geometry** **The students will learn about the:** **Coordinate axes and coordinate planes in three dimensions. Coordinates of a point.** **Octants.** **Distance between two A(x_1, y_1, z_1) and B(x_2, y_2, z_2) points:** $\sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2 + (z_2 - z$ **(2) Limits and Derivatives** **The students will learn about the:** **Limits of polynomials and rational functions trigonometric, exponential and logarithmic**	**(a) Assignment Sheets: Given as homework at the end of the topic** **- Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking** **(b) Class Tests: Conducted to evaluate understanding** **- Oral Tests: To assess students' ability to explain concepts** **- Worksheets: To practice problems and reinforce learning** **- Re-tests: Conducted based on student performance**	**- Lecture Method: Used to introduce concepts and explain theorems.** **- Learning by Doing: Students practice problems and participate in group activities.** **- Consistency: Regular practice and review of concepts** **- Understanding: Focus on understanding concepts rather than memorizing formulas** **- Group Study: Collaborate with peers to discuss problems and solutions** **- Seek Help: Ask teachers for assistance when needed.**	**Resources** **- NCERT Textbook: Primary resource for learning** **- NCERT Exemplar Book: Additional practice problems** **- Online Resources: CBSE Website and related Links.** **provide lesson plans and study materials**	**(1) <u>Three Dimensional Geometry</u>** **- <u>Physics:</u> Three-dimensional geometry is used to describe the motion of objects in space, including projectiles and orbits.** **- <u>Engineering:</u> Three-dimensional geometry is applied in engineering to design and optimize systems, including buildings, bridges, and machines.** **- <u>Computer Science:</u> Three-dimensional geometry is used in computer graphics, game development, and computer-aided design (CAD).** **- <u>Architecture:</u> Three-dimensional geometry is used in architecture to design and visualize buildings and structures.** **(1) Limits and Derivatives** **- <u>Physics</u>: Limits and derivatives are used to describe motion, including velocity and acceleration.** **- <u>Economics</u>: Limits and derivatives are used in economics to model and analyse economic systems, including supply and demand curves.** **- <u>Engineering</u>: Limits and derivatives are used in engineering to design and optimize systems, including control systems and signal processing.**

	functions. **(i)** $lim_{x\to 0}\frac{sinx}{x} = 1$ **(ii)** $lim_{x\to 0}\frac{tanx}{x} = 1$ **(iii)** $\frac{d(sinx)}{dx} = \cos x$ **(iv)** $\frac{d(x)^n}{dx} = n\,(x)^{n-1}$				**- Computer Science: Limits and derivatives are used in computer science to analyse algorithms and model complex systems.**
December" 2025 **1. Statistics** **(2)Probability** **REVISION AND PRACTICE EXAM**	**1. Statistics** **The students will learn about the:** **Measures of Dispersion: Range. Mean, Mean deviation about mean Median, Mean deviation about Median.** **variance$(\sigma)^2$ and standard deviation(σ) of ungrouped/grouped data.** **Std. deviation(σ) = $\sqrt{\text{variance}}$** **(2) Probability** **The students will learn about the:** **Random experiments; outcomes, sample**	**Assignment Sheets: Given as homework at the end of the topic** **- Logical Thinking and Higher-Order Thinking Skills: Separate sheets with questions to assess critical thinking** **(b) Class Tests: Conducted to evaluate understanding** **- Oral Tests: To assess students' ability to explain concepts** **- Worksheets: To practice problems and reinforce learning** **- Re-tests: Conducted based on student performance.**	**- Lecture Method: Used to introduce concepts and explain theorems.** **- Learning by Doing: Students practice problems and participate in group activities.** **- Consistency: Regular practice and review of concepts** **- Understanding: Focus on understanding concepts rather than memorizing formulas** **- Group Study: Collaborate with peers to discuss problems and solutions** **- Seek Help: Ask teachers for assistance when needed.**	**Resources** **- NCERT Textbook: Primary resource for learning** **- NCERT Exemplar Book: Additional practice problems** **- Online Resources: CBSE Website and related Links.** **provide lesson plans and study materials**	**- Economics: Statistics is used in economics to analyse economic data, including GDP, inflation, and employment rates.** **- Biology: Statistics is used in biology to analyse and interpret data from experiments and studies.** **- Psychology: Statistics is used in psychology to analyse and interpret data from studies and experiments.** **- Business Studies: Statistics is used in business to analyse market trends, customer behavior, and financial data.** **(2)Probability** **- Statistics: Probability is a fundamental concept in statistics, used to analyse and interpret data.** **- Economics: Probability is used in economics to model uncertainty and risk in economic systems.** **- Biology: Probability is used in**

	spaces (set representation). Events, occurrence of the events, not, and and or events, exhaustive events, mutually exclusive events, Axiomatic (se theoretic) probability, connections with other theories of earlier classes.				**biology to model genetic inheritance and population dynamics. - <u>Computer Science:</u> Probability is used in computer science to model and analyse algorithms, including machine learning and artificial intelligence.**
<u>January' 2026</u> <u>REVISION AND PRACTICE EXAMS</u>					
<u>February' 2026</u> <u>No. of periods: 26</u> <u>REVISION AND PRACTICE PRE-BOARD EXAMS</u> <u>CBSE INTERNAL ASSESSMENT EXAM</u>					
<u>March</u> <u>CBSE FINAL EXAM</u>					

ANNUAL CURRICULUM AND PEDAGOGICAL PLAN (ACPP)

CLASS: XI
SUBJECT: POLITICAL SCIENCE
TEACHER NAME: Vandana Rana

Month	Chapter Name	Book	Periods	Learning Outcomes	Teaching Learning Strategies / Activities	Resources	**Assessment Tools (a) for Identifying Learning Gaps (b) for determining understanding level**	Interdisciplinary Approach
April	**Ch-1 Constitution: Why and How? Sub- Topics** Constitution? • Constitution allows coordination and assurance • Specification of decision making powers • Limitations on the powers of government • Aspirations and goals of a society • Fundamental identity of a people b) The authority of a Constitution • Mode of	Indian Constitution at Work	5	Understand the making and philosophy of the Constitution.	Discuss Preamble, debates from Constituent Assembly	NCERT, Constitution of India	MCQs, Q&A	History – Indian National Movement

	promulgation • The substantive provisions of a constitution • Balanced institutional							
April	**Ch-1 Political Theory: An Introduction** **Sub-Topics** a) What is politics? b) What do we study in political theory? c) Putting Political theory into practice d) Why should we study political theory?	Political Theory	4	Understand the relevance of Political Theory.	Brainstorming on "What is Politics?"	NCERT	Oral discussion	Psychology – Human behavior
May	**Ch-2 Rights in the Indian Constitution** **Sub-Topics** a) The importance of rights • Bill of Rights b)Fundamental rights in the Indian Constitution • Right to Equality • Right to Freedom • Right against Exploitation • Right to Freedom of Religion • Cultural and	Indian Constitution at Work	5	Analyze Fundamental Rights and their real-life application.	Case study on rights violations	Case laws, news articles	Worksheet, diagram	Legal Studies – Fundamental Rights

	Educational Rights • Right to Constitutional Remedies c)Directive principles of state • what do the directive principles contain? d) Relationship between fundamental rights and directive principles							
May	**Ch-2 Freedom** **Sub-Topics** a)The Ideal of freedom b) The sources of Constraints c)Why do we need constraints? a) The Harm Principle b) Negative and Positive liberty	Political Theory	5	Explain the concept of freedom and its limits.	Discussion on censorship	News reports	MCQ + long answer	Media Studies – Freedom of Press
May	**Ch-3 Election and Representation** **Sub-Topics** a) Elections and democracy b) Election system in India • First Past	Indian Constitution at Work	6	Learn about election systems and representation.	Conduct mock election in class	ECI data, ballot papers	Quiz, reflection	Civics – Electoral Process

	the Post System • Proportional Representation c) Why did India adopt the FPTP system? d) Reservation of constituencies e) Free and fair elections • Universal franchise and right to contest • Independent Election Commission f) Electoral Reforms							
July	**Ch-4 Executive** **Sub-Topics** a) What is an executive? b) What are the different types of executives? c) Parliamentary executive in India • Power and position of President • Discretionar	Indian Constitution at Work	6	Understand the powers and structure of the Executive.	Role-play of President & PM	NCERT, YouTube lectures	Comparison chart	Civics – Organs of Government

	y Powers of the President d) Prime Minister and Council of ministers e) Permanent Executive: Bureaucracy							
July	**Ch-3 Equality** **Sub-Topics** a) Why does equality matter? ● Equality of opportunities ● Natural and Social Inequalities b) Three dimensions of equality c) Feminism, Socialism d) How can we promote equality?	Political Theory	6	Understand different types of equality and their challenges.	Equality walk activity	Articles, debates	Group project	Sociology – Social stratification
July	**Ch-5 Legislature** **Sub-Topics** a) Why do we need a parliament? b) Why do we need two houses of parliament? • Rajya Sabha • Lok Sabha c) What does the parliament do?	Indian Constitution at Work	6	Study the structure and functioning of Parliament.	Draft a bill in class	Lok Sabha website	MCQ, creative task	English – Drafting skills

	• Powers of Rajya Sabha • Special Powers of Rajya Sabha d) How does the parliament make laws? e) How does the parliament control the executive? f) What do the committees of parliament do? g) How does the parliament regulate itself?							
July	**Ch-4 Social Justice** **Sub-Topics** a) What is Justice? ● Equal Treatment for Equals ● Proportionate Justice ● Recognition of Special Needs b) Just distribution c) John Rawls Theory of Justice d) Pursuing Social Justice e) Free Markets	Political Theory	6	Learn the principles of justice and fairness.	Mock court on just distribution	Stories, NCERT	Role play, case analysis	Moral Science – Justice

	versus State Intervention							
August	**Ch-6 Judiciary** **Sub-Topics** • Why do we need an independent judiciary? • Independence of Judiciary • Appointment of Judges • Removal of Judges b) Structure of the Judiciary c) Jurisdiction of supreme Court • Original Jurisdiction • Writ Jurisdiction • Appellate Jurisdiction • Advisory Jurisdiction d) Judicial Activism e) Judiciary and Rights f) Judiciary and Parliament	Indian Constitution at Work	6	Learn the structure and role of Indian Judiciary.	Supreme Court judgment discussion	Legal databases	Diagram, explanation	Legal Studies – Judiciary
August	**Ch-5 Rights** **Sub-Topics**	Political Theory	5	Compare legal, moral	Rights pyramid	UN Charter, NCERT	Quiz + written work	Civics – UN and Human

	a) What are Rights? b) Where do rights come from? c) Legal rights and the state d) Kinds of rights e) Rights and responsibilities			and human rights.	activity			Rights
August	**Ch-7 Federalism** **Sub-Topics** a) What is Federalism? b) Federalism in the Indian Constitution • Division of Powers c) Federalism with a strong central government d) Conflicts in India's federal system • Centre-State Relations • Demands for Autonomy • Role of Governors and President's Rule • Demands for New States	Indian Constitution at Work	6	Understand centre-state relations and federal features.	Group chart on division of powers	NCERT maps	Short answer test	Geography – States & Union Territories

	• Interstate Conflicts e) Special provisions • Jammu and Kashmir							
August	**Ch-6 Citizenship Sub-Topcis** a) Introduction b) Full and equal membership c) Equal Rights d) Citizen and Nation e) Universal Citizenship	Political Theory	6	Identify the meaning and types of citizenship.	Compare citizenship laws of 3 countries	Articles, Constitutions	Group discussion	Law – Citizenship Act
September	**Ch-8 Local Governments Sub-Topics** a) Why local governments? b) Growth of Local Government in India • Local Governments in Independent India c) 73rd and 74th amendments d) 73rd Amendment • Three Tier Structure	Indian Constitution at Work	5	Explain the structure and importance of Panchayati Raj.	Simulate a Gram Sabha	Government reports	Project rubric	Civics – Local Administration

	• Elections • Reservations • Transfer of Subjects • State Election Commissioners • State Finance Commission e) 74th Amendment f) Implementation of 73rd and 74th Amendments							
September	**Ch-6 Citizenship** **Sub-Topics** a) Introduction b) Full and equal membership c) Equal Rights d) Citizen and Nation e) Universal Citizenship f) Global Citizenship	Political Theory	6	Identify the meaning and types of citizenship.	Compare citizenship laws of 3 countries	Articles, Constitutions	Group discussion	Law – Citizenship Act
October	**Ch-9- Constitution as a Living Document** **Sub-Topics** a) Are constitutions static? b) How to amend	Indian Constitution at Work	6	Understand the dynamic nature of the Constitution and the process of constitutional	Discuss Article 368 and landmark amendments - Timeline of key constitutional	NCERT, Constitution of India, Amendment documents	MCQs, group presentation, Q&A	Law – Constitution Amendments History – Political Evolution

	the constitution? c) Why have there been so many amendments? d) Contents of amendments made so far • Differing Interpretations • Amendments through Political Consensus • Controversial Amendments e) Basic structure and evolution of the constitution f) Constitution as a Living Document • Contribution of the Judiciary • Maturity of the Political Leadership			amendment.	amendments - Debate: "Should the Constitution be rigid or flexible?"			
October	**Ch-7 Nationalism Sub-Topics** a)Introducing Nationalism b) Nations and Nationalism	Political Theory	6	Understand nationalism, nation and state.	Flag interpretation activity	NCERT, documentaries	Poster, discussion	History – National Movements

	● Shared Beliefs ● History ● Shared National Identity c) National self-determination d) Nationalism and Pluralism							
October	**Ch-10-The Philosophy of the Constitution** **Sub- Topics** a) What is meant by philosophy of the constitution? • Constitution as Means of Democratic Transformation b) Why do we need to go back to the Constituent Assembly? c) What is the political philosophy of our constitution? • Individual freedom • Social Justice • Respect for diversity	Indian Constitution at Work	7	Comprehend the core values enshrined in the Preamble and their relevance in governance	- Analyze keywords from the Preamble through group posters - Reflective writing: "How do constitutional values affect my daily life?" - Connect ideals with real-life scenarios	NCERT, Preamble, Constituent Assembly Debates	Poster rubric, written reflections, viva	Philosophy – Ideals of Justice & Liberty Moral Science – Values in Civic Life

	and minority rights • Secularism							
November	**Ch-8 Secularism** **Sub- Topics** a) What is Secularism? ● Inter-religious Domination ● Intra-religious Domination b) Secular State c) The western model of secularism d) The Indian model of secularism e) Criticisms of Indian secularism ● Western Import ● Minoritism ● Interventionist ● Vote Bank Politics	Political Theory	7	Explore secularism and its challenges in India.	Class speech on communal harmony	News clippings, NCERT	Speech rubric	Religious Studies
November	**Revision + Internal Assessment**	Full Syllabus	As required	Reinforce learning, practice skills, prepare for exam.	Sample papers, peer teaching	Worksheets, practice sets	Mock test	All Subjects

(ACPP)

CLASS XI	SUBJECT Physics		NAME OF TEACHER		PRADEEP KUMAR
Topic/no of period/month	Learning outcomes	Assessment tools for identifing learning gap	Teaching/learning strategies	Resources	interdisciplinary approach
Mathematical tools Unit 1	students will able to apply mathmatical tools in physics	b for understanding level	Approach /Activity	NCERT/ /HC Verma	mathematical tools used in chemistry dimensions in physical chemistry/ Thermodynamics
sub topics Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures, Determining the uncertainty in result. Dimensions of physical quantities, dimensional analysis and its applications.	students will able to understand need for measurement students will able to find SI units and dimensions will able to apply dimensions to check correctness of ff formula and derive formula and able to find dimensions of derived quantity	MCQ test/group discussion/ quiz	inquiry/lecture		
month April no of periods 20					
Unit II: Kinematics sub topics :Motion in a Straight Line Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non-uniform motion, average speed and	students will able to define/calculate/determine/understand topics mentioned in unit II . students will able to to draw various	MCQ test/group discussion/ quiz	inquiry/lecture	NCERT/ HC Verma	sports athletics, swimming long jump

average velocity and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical and calculus treatment).	graphs				
Month May 19					
No of periods					
unit II Kinematics					
sub topics Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration-projectile motion, uniform circular motion.	students will able to define/calculate/anylze/determine/ understand topics mentioned in unit II and III	MCQ test/group discussion/ quiz	inquiry/lecture/activity	NCERT/ HC VERMA	Sports/engineering/computer graphics/ maths
Unit III:					
Laws of Motion Chapter–4: Laws of Motion Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion;					

impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).					
month July No of periods 24					
Unit IV: Work, Energy and Power sub topics Work done by a constant force and a variable force; kinetic energy, work- energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.	students will able to define/calculate/understand/analyze/ determine topics mentioned in unit IV and V	MCQ/ group discussion/ quiz	inquiry/lecture	NCERT/ HC Verma	engineering/maths
Unit V: Motion of System of Particles and Rigid Body					

sub topics Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation). Unit VI: Month August No of periods 21 Revision for half yearly exam Month September no of periods 8 unit VI Gravitation sub topics laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth.	students will able to define/calculate/determine/understand analyze topics mentioned in unit VI and vii	MCQ/group discussion/quiz	inquiry/lecture	NCERT H C verma	environmental science and chemistry

Gravitational potential energy and gravitational potential, escape speed, orbital velocity of a satellite, energy of an orbiting satellite. Unit VII: Properties of Bulk Matter sub topics Mechanical Prop-erties of Solids Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. Application of elastic behavior of materials (qualitative idea only month October no of periods 17 unit VII properties of matter sub topics Mechanical Properties of Fluids Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications (Torricelli's law and Dynamic lift). Surface energy and surface tension, angle of	students will able to define/calculate/determine/understand analyze topics mentioned in unit VII and VIII	MCQ/group discussion/quiz	inquiry/lecture	NCERT H C verma	environmental science and chemistry

contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.

Chapter–10: Thermal Properties of Matter

Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state

- latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law.

Unit VIII: Thermodynamics

Chapter–11: Thermodynamics

Thermal equilibrium and definition of temperature, zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: Thermodynamic state variable and equation of state. Change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible,

and cyclic processes. Unit IX: Behavior of Perfect Gases and Kinetic Theory of Gases month November no of periods 21					
Unit IX: Behavior of Perfect Gases and Kinetic Theory of Gases sub topics Kinetic Theory Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's numbe	students will able to define/calculate/determine/understand analyze topics mentioned in unit IX and X	MCQ/group discussion/quiz	inquiry/lecture	NCERT H C verma	Chemistry
Unit X Oscillations and Waves sub topics Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their applications. Simple harmonic motion (S.H.M), uniform circular motion and its equations of motion; phase;					

oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.					
month December					
no of periods 15					
unit X					
sub topics Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental	students will able to define/calculate/determine/understand analyze topics mentioned in unit X	MCQ/group discussion/quiz	inquiry/lecture	NCERT/ H C verma	Chemistry and biology
month January					
no of periods 12					

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: APRIL 2025

NO. OF WORKING DAYS: 21

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Short Notes and Raag Bhairvi Parichay **PRACTICAL:** Raag Bhairvi	Students will know how to learn Layakari, developing the sense of taal beats	Harmonium & Tabla	Learning of Short Notes and Taal with hand beats	Sangeet Manjusha, Sangeet Anand, Bhatkhande

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: MAY 2025

NO. OF WORKING DAYS: 17

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Short and Long Definitions; Introduction to Raag Bhairvi; Life Sketch of Tansen **PRACTICAL:** Aalaap & Taan Raag Bhairvi	Students will learn short definitions, developing singing skills	Harmonium & Tabla	Lecture Method and writing of Raag Bhairvi Notations with Aalaap and Taan	Sangeet Manjusha, Sangeet Anand, Bhatkhande

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: JULY 2025

NO. OF WORKING DAYS: 25

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Brief Study of Musical Elements in Nataya Shastra and Life Sketch of Pt. V. N. Bhatkhande **PRACTICAL:** Raag Bhairvi (Drut Khayal)	Students will learn the way of writing Drut Khayal Notations	Harmonium & Tabla	Lecture Method and writing of the complete descriptions and their importance	Sangeet Manjusha, Sangeet Anand, Bhatkhande

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: AUGUST 2025

NO. OF WORKING DAYS: 23

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Definition of Khayal and Teen Taal; Life Sketch of Pt. V. D. Paluskar **PRACTICAL:** Raag Bihag with Aalaap & Taan	Developing singing skills	Harmonium & Tabla	Lecture Method and writing of Aalaap and Taan	Sangeet Manjusha, Sangeet Anand, Bhatkhande

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: SEPTEMBER 2025

NO. OF WORKING DAYS: 23

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Raag Parichay of Bihag and Short Notes; Ek Taal **PRACTICAL:** Practice of Dugun and Chaugun with Hand Beats	Developing the sense of Sur and Taal	Harmonium & Tabla	Lecture Method	Sangeet Manjusha, Sangeet Anand, Bhatkhande

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: OCTOBER 2025

NO. OF WORKING DAYS: 21

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Brief Study of Margi and Desi Sangeet; Chautaal **PRACTICAL:** Raag Bhimplasi Drut Khayal with Simple Elaboration	Students will learn know how to learn Layakari, developing the sense of Taal Beats.	Harmonium & Tabla	Learning of Short Notes and Taal with Hand Beats	Sangeet Manjusha, Sangeet Anand, Bhatkhande

CLASS: XI SUBJECT: MUSIC

NAME OF THE TEACHER: MRS. RUPALI PAL MONTH & YEAR: NOVEMBER 2025

NO. OF WORKING DAYS: 22

TOPIC	LEARNING OUTCOMES	ASSESSMENT TOOLS	TEACHING LEARNING STRATAGIES	RESOURCES
Periods: 24 Brief study of Drupad and Tarana as well as knowledge of structure of Taanpura **PRACTICAL:** One Devotional Song and recognition of Raag	Students will learn the basic knowledge about Classical Music by Taanpura	Harmonium & Tabla	Lecture Method and Demo Method	Sangeet Manjusha, Sangeet Anand, Bhatkhande

Computer Science Class XI : 2025-26
Code No. – 083

Learning Outcomes :

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

a. Develop basic computational thinking
b. Explain and use data types
c. Appreciate the notion of algorithm
d. Develop a basic understanding of computer systems - architecture, operating system andcloud computing
e. Explain cyber ethics, cyber safety and cybercrime
f. Understand the value of technology in societies along with consideration of gender anddisability issues

MONTH & NO. OF WORKING DAYS : APRIL - 18 DAYS

Unit I: Computer Systems and Organisation ● Basic Computer Organisation: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB) ● Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software ● Operating system (OS): functions of operating system, OS user interface	▪ Lecture method ▪ Diagrammatic representation ▪ Group discussion ▪ Demonstration of activities	The students will be able to… -The concept of Basic Computer Organization -Types of software -Operating system and its functions

MONTH & NO. OF WORKING DAYS : MAY - 16 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
• Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth table, De Morgan's laws and logic circuits • Number system: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems. • Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32) • Emerging trends: Cloud computing, cloud services (SaaS, IaaS, PaaS), blockchains, Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT)	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Know Boolean logic, Number system, Encoding Scheme etc.

MONTH & NO. OF WORKING DAYS : JULY -22 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit II: Computational Thinking and Programming – 1 ● Introduction to problem solving: Steps for problem solving (analysing the problem, developing an algorithm, coding, testing and debugging). representation of algorithms using flow chart and pseudo code, decomposition ● Familiarization with the basics of Python programming: Introduction to Python, features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens (keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments	● Lecture method ● Practical method ● Pictorial demonstration ● Discussion Method	The students will be able to… ● Know basic features of Python programming. ●Develop small python programs like ‘Hello Work’

MONTH & NO. OF WORKING DAYS : AUGUST -23 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
• Knowledge of data types: number (integer, floating point, complex), boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types • Operators: arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in) • Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output • Errors: syntax errors, logical errors, runtime errors • Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Learn data types in python programming language • Various operators used in python programming language • Learn expressions, statements in python. • Know errors in python programming • Know flow of control in python programming

MONTH & NO. OF WORKING DAYS : SEPTEMBER -23 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
• **Conditional statements**: if, if- else, if-elif-else, flowcharts, simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number • Iterative statements: for loop, range function, while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number etc • **Strings:** introduction, indexing, string operations (concatenation, repetition, membership & slicing), traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(),startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(), rstrip(), strip(), replace(), join(), partition(), split()	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • know conditional statement, iterative statement in python programming • Know use of string with its various functions

MONTH & NO. OF WORKING DAYS : OCTOBER - 20 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
• **Lists:** introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(),sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list **Tuples:** introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple, suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Know about list with its various useful functions • Know about tuples with its various useful functions

MONTH & NO. OF WORKING DAYS : NOVEMBER - 19 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
• **Dictionary:** introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del(), clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them • Sorting techniques: Bubble and Insertion sort • Introduction to Python modules: Importing module using 'import ' and using from statement, Importing math module (pi, e, sqrt, ceil, floor, pow, fabs, sin, cos, tan); random module (random, randint, randrange), statistics module (mean, median,mode)	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • to do programs by using dictionary with its various useful functions. • know sorting techniques • Know python modules and their uses

MONTH & NO. OF WORKING DAYS : DECEMBER - 22 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit III: Society, Law and Ethics • Digital Footprints • Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes • Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache) • Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime • Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying. • Safely accessing web sites: malware, viruses, trojans, adware • E-waste management: proper disposal of used electronic gadgets • Indian Information Technology Act (IT Act) • Technology & Society: Gender and disability issues while • teaching and using computers	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Know the impact of internet on society, • Know law and ethics related to cyber world. • Aware of Cyber Crime, Cyber Safety and Safely accessing the web sites. • Know about information technology and Information Technology Act (IT ACT)

MONTH & NO. OF WORKING DAYS : JANUARY -18 DA

CHAPTER	METHODOLOGY	LEARNING OUTCOME
• Preparing of Practical file (containing at least best 20 python programs and at least 10 SQL queries • Preparing of Project report	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Prepare practical file • Prepare Project report

Informatics Practices

CLASS XI _ 2025-26

Code No. 065

Learning Outcomes :

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

- Identify the components of the Computer System.
- Create Python programs using different data types, lists and dictionaries.
- Explain what is 'data' and analyse using NumPy.
- Explain database concepts and Relational Database Management Systems.
- Retrieve and manipulate data in RDBMS using Structured Query Language
- Identify the Emerging trends in the fields of Information Technology.

MONTH & NO. OF WORKING DAYS : APRIL - 18 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit 1: Introduction to Computer System and computing: Evolution of computing devices, components of a computer system and their interconnections, Input/Output devices. Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns. 2 Software: purpose and types – system and application software, generic and specific purpose software.	● Lecture method ● Practical method ● Pictorial demonstration ● Discussion Method	The students will be able to… ● Know about components of a computer system, input output devices, types of memories ● Know about type of software

MONTH & NO. OF WORKING DAYS : MAY -16 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit 2: Introduction to Python Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation of expressions, comments, input and output statements, data type conversion, debugging, control statements: if-else, for loop	● Lecture method ● Practical method ● Pictorial demonstration ● Discussion Method	The students will be able to… ● Learn Python Basics

MONTH & NO. OF WORKING DAYS : JULY -22 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions.: len(), list(), append(), extend(), insert(), count(), find(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum() Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()	● Lecture method ● Practical method ● Pictorial demonstration ● Discussion Method	The students will be able to… ● Know list operations with its various useful functions

MONTH & NO. OF WORKING DAYS : AUGUST -23 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit 3: Data Handling using NumPy Data and its purpose, importance of data, structured and unstructured data, data processing cycle, basic statistical methods for understanding data - mean, median, mode, standard deviation and variance. Introduction to NumPy library, NumPy arrays and their advantage, NumPy attributes, creation of NumPy arrays; from lists using np.array(), np.zeros(), np.ones(),np.arange() , indexing, slicing, and iteration; concatenating and splitting array; Arithmetic operations on one dimensional and two dimensional arrays. Calculating max, min, count, sum, mean, median, mode, standard deviation, variance on NumPy arrays.	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Learn data handling using NumPy • Learn Various mathematical and statistical operations with its various useful methods

MONTH & NO. OF WORKING DAYS : SEPTEMBER - 23 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit 4: Database concepts and the Structured Query Language **Database Concepts:** Introduction to database concepts and its need, Database Management System. Relational data model: concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key. Structured Query Language: Data Definition Language,Data Query Language and Data Manipulation Language.	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • know database concept (i.e. Database Management System) • Know various keys constraints used in a database with their purposes.

MONTH & NO. OF WORKING DAYS : OCTOBER -20 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Introduction to MySQL: Creating a database, using database, showing tables using MySQL, Data Types : char, varchar, int, float, date Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute). Data Query Commands: SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause Data Manipulation Commands: INSERT, UPDATE, DELETE	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • Create a database with various DDL queries • Manage a database with various DML queries

MONTH & NO. OF WORKING DAYS : NOVEMBER - 19 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
Unit 5: Introduction to the Emerging Trends Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.	• Lecture method • Practical method • Pictorial demonstration • Discussion Method	The students will be able to… • aware about various online activities, their management and their impact on our society

MONTH & NO. OF WORKING DAYS : DECEMBER -22 DAYS

CHAPTER	METHODOLOGY	LEARNING OUTCOME
● Preparing of Practical file (containing at least best 20 python programs and at least 10 SQL queries ● Preparing of Project report	● Lecture method ● Practical method ● Pictorial demonstration ● Discussion Method	The students will be able to… ● Prepare practical file ●Prepare Project report