



DELHI PUBLIC SCHOOL R. N. EXTENSION

(Under the aegis of the Delhi Public School Society, New Delhi)

ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XII		Subject: ENGLISH		Name of the Teacher: LAKSHMI SRINIVASAN	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Subject Enrichment/ Art Integration	
I MARCH	12 Days	Flamingo 1. My Mother at Sixty Six (Poem) 2. The Last Lesson Writing Notice: School related, Resident Welfare Association, Reading: Comprehension	<ul style="list-style-type: none"> Appreciation of the poem, literary criticism and literary devices Notice: Will be able to write various types of notices The importance of education. Avoid procrastination 	A collage of photographs of mother at home and office (if it applies) Some French words used in English Comic strip of a child procrastinating studies and regretting later.	
II APRIL	19 Days	Flamingo: 3. The Lost Spring Vista: 1. The Tiger King Writing: Letter to the Editor	<ul style="list-style-type: none"> The students will learn to empathize with the have-nots The students would learn to appreciate literary devices such as Satire, pun etc. 	Visit to the school for the rag pickers	
III MAY	20 Days	Flamingo: 4. Deep Water 5. Keeping Quiet (Poem) Vista: 2. The Third Level Writing: Invitation, reply to invitation	<ul style="list-style-type: none"> Research more about economic depression in America The students will learn to draft various types of invitations The students would understand the importance of recognizing fear and confronting it. 	PowerPoint Presentation Students will prepare presentation on The Economic depression in America during the 1890s and after the World War II	
SUMMER VACATION 30 MAY 2024 – 30 JUNE 2024					
IV JULY	22 Days	Flamingo: 6. The Rattrap 7. A thing of Beauty (Poem) Vista: 3. Journey to the End of the Earth Writing: Article, Report ASL- Assessment of Speaking & Listening	<ul style="list-style-type: none"> That greed leads to entrapment How any object of beauty gives us happiness The students will learn the format of an article and a report. 	A collage of beautiful things that makes one happy	



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V AUGUST	13 days	Flamingo: 8. Indigo 9. Poets and Pancakes Vista: 4. On the Face of It Writing: Job Application with bio-data	<ul style="list-style-type: none"> The students would learn about Indian Freedom Movement Understand the behind the scene activities of a theatre Various literary devices Learn to accept and deal with ones problems in a very mature manner. Will able to write a job application letter and also learn the format for bio-data 	Role Play based on the lesson “On the face of it”
2 September to 9 September 2024	REVISION FOR HALF YEARLY EXAMINATION		Term-I syllabus will be revised thoroughly along with doubt clearing after the completion of syllabus by 30 August 2024	
10 September to 27 September 2024		HALF YEARLY EXAMINATION		
Term II resumes: 30 September 2024				
VI OCTOBER	18 Days	Flamingo: 10. The Roadside Stand 11. Interview 12. Going Places Vista: 5. The Enemy	<ul style="list-style-type: none"> The poem is full of literary devices. The students will learn to identify them 	Project File Students will prepare projects on socially relevant topics.
VII NOVEMBER	9 Days	Flamingo: 13. Aunt Jennifer’s Tigers Vista: 6. Memories of Childhood Writing- Job Application with bio-data	<ul style="list-style-type: none"> That discrimination was a common factor all over the world. Women all over the world have had similar experiences in this male dominated society. 	Poem Composition On Women and achievement
MOCK SERIES		18 November 2024 to 29 November 2024		
PRE-BOARD 1		2 December 2024 to 13 December 2024		
PRE-BOARD 2		23 December 2024 to 20 January 2025		
WINTER BREAK		30 December 2024 to 7 January 2025		
SCHOOL REOPENS		8 January 2025		
PRE-BOARD 3		Resume up to 20 January 2025		



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Class: XII		Subject: PHYSICS (042)		Name of the Subject Teacher: VARUN KUMAR	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
I MARCH 2024	12 Days	Ch-1: Electric Charges and Fields	Students learn about charge and its effect, Electric flux, Gauss's law and its applications.		
II APRIL 2024	19 Days	Ch-2: Electrostatic Potential and Capacitance	Students learn about storage of charge capacitance of parallel plate capacitor with air and with dielectric slab.		
III MAY 2024	20 Days	Ch-3: Current Electricity Ch-4: Moving Charges and Magnetism	Students learn to solve various types of electric circuits using DC, combination of cells, KCL and Wheatstone bridge. Students learn about Biot savart law, Ampere's law and its applications, moving coil galvanometer and conversions of galvanometer into ammeter and voltmeter.		
Summer Vacation: 30 May to 30 June 2024					
School Reopens : 1 July 2024					
IV JULY 2024	22 Days	Ch-4: Moving charges and Magnetism Ch-5: Magnetism and Matter Ch-6: Electromagnetic Induction	Students learn about behaviour of various substances in magnetic field, magnetic moment, different types of magnetic materials with properties Students learn about magnetic flux and Faraday's experiment.	To find resistance of a given wire using metre bridge. To verify the laws of combination series / Parallel of resistance using metre bridge.	
V AUGUST 2024	13 days	Ch-6: Electromagnetic Induction Ch-7: Alternating Current Ch-8: Electromagnetic Wave	Students learn about the production of electric current using magnetic field, different AC circuits and average power. Students learn about the production and propagation of electromagnetic waves	To determine the resistivity of two / Three wires by plotting a graph for potential difference versus current. To determine resistance of a galvanometer by half deflection method and to find its figure of merit. Activities of section A NO.3,4,5 and 6	
Syllabus completion: 30 th August 2024					



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VI September 2024	6 days	Revision - Half Yearly Examination: 2 September 2024 to 9 September 2024		
Half Yearly Examination: 10 September 2024 to 27 September 2024				
Seconds Terms Resumes: 30 September 2024				
VII OCTOBER 2024	18 Days	Ch-9: Ray Optics and Wave Optics Ch-10: Wave Optics Ch-11: Dual Nature of Radiation and Matter.	Students learn about the reflection, refraction, interference, diffraction and optical instruments. Students learn about Einstein's photo electric theory and de Broglie hypothesis.	To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. To draw the V-I characteristic curve for a P-N junction diode in forward and reverse bias.
VIII NOVEMBER 2024	9 Days	Ch-12: Atom Ch-13: Nuclei Ch-14: Semiconductor Electronics	Students learn about the structure of atom. Students learn about the structure and stability of Nucleus, nuclear fission and fusion Students learn about the formation pn junction band theory, intrinsic and extrinsic semiconductors, forward and reverse biasing, half and full wave rectifier	To find the focal length of a convex lens by plotting graphs between u and v or 1/u and 1/v. To find the value of v for different value of u in case of concave mirror and to find the focal length. Activities of section B no 1, 5 and 6
MOCK SERIES : 18 NOVEMBER 2024 – 29 NOVEMBER 2024				
PRE-BOARD 1 2 December 2024 to 13 December 2024				
PRE-BOARD 2 23 December 2024 to 20 January 2025				
WINTER BREAK 30 December 2024 to 7 January 2025				
SCHOOL REOPENS: 8 January 2025				
PRE-BOARD 3 Resume up to 20 January 2025				



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XII		Subject: Chemistry		Name of the Subject Teacher: Swati Lohani	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
I March 2024	12	CHAPTER I: SOLUTIONS	<p>Students will be able to</p> <ul style="list-style-type: none">• Describe the formation of different types of solutions.• Express concentration of solution in different units.• State and explain Henry's law and Raoult's law.• Distinguish between ideal and non-ideal solutions.• Explain deviations of real solutions from Raoult's law.• Describe colligative properties of solutions and correlate these with molar masses of the solutes.• Explain abnormal colligative properties exhibited by some solutes in solutions.	Preparation of M/20 Oxalic acid solution in laboratory	
II April 2024	19	CHAPTER II: ELECTROCHEMISTRY CHAPTER III: CHEMICAL KINETICS	<p>Students will be able to</p> <ul style="list-style-type: none">• Apply Nernst equation for calculating the emf of galvanic cell and define standard potential of the cell.• Derive relation between standard potential of the cell, Gibbs energy of cell reaction and its equilibrium constant.• Understand quantitative aspects of electrolysis.• Describe the construction of some primary and secondary batteries and fuel cells.• Discuss the dependence of rate of reactions on concentration, temperature and catalyst.• Derive integrated rate equations for the zero and first order reactions. Plot graph for same.	Graph modelling for zero order and first order reaction Maxwell boltzmann distribution Daniel cell and Lechlanche cell construction and demonstration	



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III May 2024	20	CHAPTER IV: D AND F BLOCK ELEMENTS CHAPTER V: COORDINATION COMPOUNDS	Students will be able to <ul style="list-style-type: none">• Learn the positions of the d- and f-block elements in the periodic table.• Know the electronic configurations of the transition (d-block) and the inner transition (f-block) elements.• Describe the preparation, properties, structures and uses of some important compounds such as $K_2Cr_2O_7$ and $KMnO_4$• Understand the general characteristics of the d- and f-block elements and the general horizontal and group trends in them Describe the properties of the f-block elements and give a comparative account of the lanthanoids and actinoids with respect to their electronic configurations, oxidation states and chemical behaviour.• Learn the rules of nomenclature of coordination compounds.• Understand the nature of bonding in coordination compounds in terms of the Valence Bond and Crystal Field theories.	Redox Titration of Mohr's salt vs $KMnO_4$ Redox Titration of Oxalic acid vs $KMnO_4$
SUMMER VACATION : 30 MAY 2024 to 30 JUNE 2024				
IV July 2024	22	CHAPTER VI :HALOALKANES AND HALOARENES	Students will be able to <ul style="list-style-type: none">• Name haloalkanes and haloarenes according to the IUPAC system of nomenclature from their given structures.• Describe the reactions involved in the preparation of haloalkanes and haloarenes and understand various reactions that they undergo.• Correlate the structures of haloalkanes and haloarenes with various types of reactions.	Chromatography



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V August 2024	19	CHAPTER VII : ALCOHOLS, PHENOLS AND ETHER	Students will be able to <ul style="list-style-type: none">• Discuss the reactions and mechanism involved in the preparation of alcohols from (i) alkenes (ii) aldehydes, ketones and carboxylic acids.• Discuss the reactions for preparation of ethers from (i) alcohols and (ii) alkyl halides and sodium Alkoxides / aryl oxides.• Correlate physical properties of alcohols, phenols and ethers with their structures	Salt analysis
VI September 2024	6	REVISION FOR HALF YEARLY EXAM (2 SEPTEMBER 2024 – 9 SEPTEMBER 2024)		
HALF YEARLY EXAM (10 SEPTEMBER 2024 – 27 SEPTEMBER 2024)				
VII October 2024	18	CHAPTER VIII : ALDEHYDES, KETONES AND CARBOXYLIC ACID CHAPTER IX : AMINES	Students will be able to <ul style="list-style-type: none">• Discuss chemical reactions of the three classes of compounds on the basis of their functional groups.• Describe the important methods of preparation and reactions of these Classes of compounds.• Correlate physical properties and chemical reactions of aldehydes, ketones and carboxylic acids, with their structures.• Explain the mechanism of a few selected reactions of aldehydes and Ketones.• Understand various factors affecting the acidity of carboxylic acids and their reactions.• Classify amines as primary, secondary and tertiary.• Name amines by common names and IUPAC system.• Describe some of the important methods of preparation of amines.	Salt analysis Investigatory project



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VIII November 2024	9	CHAPTER IX : AMINES (CONTD) CHAPTER X : BIOMOLECULES	Students will be able to <ul style="list-style-type: none">• Describe the method of preparation of Diaz onium salts and their importance in the synthesis of a series of aromatic compounds including azo dyes.• Explain the characteristics of biomolecules like carbohydrates, proteins and nucleic acids and hormones.• Classify carbohydrates, proteins, nucleic acids and vitamins on the basis of their structures.• Explain the difference between DNA and RNA.• Describe the role of biomolecules in biosystem	Functional group analysis
MOCK SERIES : 18 NOVEMBER 2024 – 29 NOVEMBER 2024				
PRE BOARD I : 2 DECEMBER 2024 – 13 DECEMBER 2024				
WINTER BREAK : 30 DECEMBER 2024 TO 7 JANUARY 2025				
PRE BOARD II : 23 DECEMBER 2024 – 20 JANUARY 2025				
PREBOARD 2 RESUME UP - TO 20 JANUARY 2025				



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Class: XII		Subject: BIOLOGY		Name of the Subject Teacher: SONIA SARASWAT	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
I MARCH 2024	12 DAYS	CH 4:Principle of Inheritance and Variation	At the end of the chapters students will be to understand <ul style="list-style-type: none"> Mendelian Inheritance and its deviation, Sex determination in organisms and genetic disorders in human beings 	<ul style="list-style-type: none"> Study of Pedigree charts Study of Mendelian inheritance 	
II APRIL 2024	19 DAYS	CH 5 :Molecular Basis of Inheritance	<ul style="list-style-type: none"> Structure of DNA and RNA, experiments to search for genetic material, process of transcription and translation Regulation of gene expression, human gene project and DNA fingerprinting 		
III MAY 2024	20 DAYS	CH 9 :Biotechnology: Principles and Processes CH 10: Biotechnology and its Applications CH 6 :Evolution	<ul style="list-style-type: none"> Principles of biotechnology, tools of RDT, processes of RDT. Biotechnological applications in agriculture and medicine, transgenic animals and ethical issues related to genetic modifications. Theories of origin of life, evolution of life forms, evidence and mechanism of evolution, origin and evolution of Man. 	<ul style="list-style-type: none"> Isolation of DNA from available plant material Flash cards models showing examples of homologous and analogous organs 	
SUMMER VACATION : 30 May 2024 to 30 June2024					
IV JULY 2024	22 DAYS	CH 1:Sexual Reproduction in flowering plants CH 2:Human Reproduction CH 3:Reproductive Health	<ul style="list-style-type: none"> Structure of flower, formation of male and female gametes, double fertilization and post fertilization events Parts of human male and female reproductive system, formation of male and female gametes, fertilization and post fertilization events. Problems related to reproductive health, birth control, STDs and various assisted reproductive technologies. 	<ul style="list-style-type: none"> Prepare a temporary mount to observe pollen germination Study pollen germination on stigma through a permanent a slide Study of flowers adapted to pollination by diff. agencies Prepare a temporary mount of onion root tip to study mitosis Study meiosis through permanent slide 	



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V AUGUST 2024	19 DAYS	CH 7: Human Health and diseases CH 8: Microbes in Human Welfare	<ul style="list-style-type: none">• Common diseases in humans, various types of immune system, drugs and alcohol abuse• Usage of microbes in household, industrial products, sewage treatment and production of biogas.• Microbes as biocontrol agents and bio fertilizers.	<ul style="list-style-type: none">• Study of common disease causing organisms through permanent slides.
VI September 2024	6 DAYS	Revision-Half yearly examination: 2 September 2024 to 9 September 2024		
HALF YEARLY EXAMINATION: 10 September 2024 to 27 September 2024				
SECOND TERM RESUMES EFFECTIVE FROM 30 SEPTEMBER 2024				
VII OCTOBER 2024	18 DAYS	CH:11 Organisms and populations CH:11 Ecosystem CH 12:: Biodiversity and its conservation	<ul style="list-style-type: none">• Attributes of population, population growth models and various population interactions.• Components of ecosystem, energy flow through food chain and food web.• Patterns of biodiversity, loss and conservation of biodiversity	<ul style="list-style-type: none">• Study the plant population density by quadrat method.• Study the plant population frequency by quadrat method• Model specimen showing symbolic association in root nodules of leguminous plants, Cuscuta on host, Lichens
VIII NOVEMBER 2024	9 DAYS	Revision of whole syllabus		
MOCK SERIES : 18 NOVEMBER 2024 TO 29 NOVEMBER 2024				
PRE BOARD 1: 2 DECEMBER 2024 TO 13 DECEMBER 2024				
PRE BOARD 2 : 23 DECEMBER 2024 TO 20 JANUARY 2025				
WINTER VACATION : 30 December 2024 to 7 January 2025				
SCHOOL REOPENS : 8 JANUARY 2025				
PREBOARD 2 RESUME UP - TO 20 JANUARY 2025				



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Class: XII		Subject: MATHEMATICS		Name of the Subject Teacher: DINESH KUMAR TYAGI	
Module	No. of Days	Chapters and Topics to be taught		Learning Objectives	Activity Planned/ Integration of Art
I	12	Chapter 3 Matrices Chapter 4 Determinants		Pupil will be able to understand the concepts of : <ul style="list-style-type: none">• definition of Matrix• Different type of matrices.• Operations on matrices• Symmetric and skew symmetric Matrix• Determinant values of square matrix• Area of Triangle by using determinants	Relation of Matrices operations with real life
II	19	Chapter 4 Determinants (Continued) Chapter 1 Relation and Functions		Pupil will be able to understand: <ul style="list-style-type: none">• Concept of adjoint and Inverse of matrices• Solution of system of linear equations by Matrix Method• Consistency of system of linear equations• Relation on a set• Types of relation• Equivalence relation• Equivalence class	Activity on Equivalence relation
III	20(Up-to 29 May 2024)	Chapter 2 Inverse Trigonometric Functions Chapter 12 Linear Programming Problem Chapter 5 Continuity and Differentiability		Pupil will be able to: <ul style="list-style-type: none">• Understand Concept of inverse function and modified trigonometric functions• Define Principal values and range for a given inverse trigonometric function.• Basic properties of trigonometric functions• Sketch graph of inverse trigonometric functions.• Know about LPP• Able to solve LPP by graphical Method• Concept of Chain Rule	demonstration of function which is not one -one but onto. draw the graph of $\sin^{-1} x$, using graph of $\sin x$



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			<ul style="list-style-type: none">• Differentiation of implicit & explicit functions using product/quotient/chain rule.• Logarithmic Differentiation• Differentiation of inverse Trigonometric Functions• Parametric Differentiation• Second order derivatives of a given function.• concept of Continuity and differentiability	
IV	22	Chapter 6 : Application of derivatives Chapter 7 : Integrals	<p>Students will be able to understand</p> <ul style="list-style-type: none">• Concept of derivative as a rate of change• Concept of Increasing and decreasing Functions• Concept of Maxima & Minima• First Order Derivative Test• 2nd Order Derivative test• Word problems based on Maxima & Minima• Introduction to Integral Calculus• Integration as an Inverse Process of Differentiation• Methods of Integration• Integrals of Some Particular Functions• Integration by Partial Fractions• Integration by Parts• Definite Integral• Fundamental Theorem of Calculus• Evaluation of Definite Integrals by Substitution• Some Properties of Definite Integrals	<p>Concepts of increasing and decreasing function geometrically</p> <p>Construct an open box of maximum volume from a given rectangular sheet by cutting equal square from each corner</p>



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V	19	Chapter-8 APPLICATION OF INTEGRALS Chapter -9 DIFFERENTIAL EQUATIONS Chapter -10 VECTOR ALGEBRA	<ul style="list-style-type: none">• Introduction to Differential Equations• Order & Degree of Diff. Equation• General and Particular Solutions of a Differential Equation• Variable Separable Method• Homogeneous differential equations• Linear differential Equation• Introduction to Vectors• Some Basic Concepts• Types of Vectors• Addition of Vectors• Multiplication of a Vector by a Scalar• Product of Two Vectors	
Syllabus Completion -30 August 2024				
Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024				
Half Yearly Examination: 10 September 2024 to 27 September 2024				
VI	18	Chapter-11 THREE-DIMENSIONAL GEOMETRY Chapter-13 PROBABILITY	<p>Students will be able to know about</p> <ul style="list-style-type: none">• Direction Cosines and Direction Ratios of a Line• Equation of a Line in Space• Angle between Two Lines• Short Distance between Two Line• Conditional Probability• Multiplication Theorem on Probability• Independent Events• Bayes' Theorem	computation of conditional probability of a given event when another event is already happened with the help of pair of dice .



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			<ul style="list-style-type: none">• Random Variables and its Probability Distributions• Mean of Random variable• definition of relations & function	
VII	9(Up-to 14 November 2024)	Revision Classes		
Mock series: 18 November 2024 to 29 November 2024				
Pre-Board-1: 2 December 2024 to 13 December 2024				
Pre-Board-2: 23 December 2024 to 20 January 2025				
Winter Break: 30 December 2024 to 7 January 2025				
School Reopens: 8 January 2025				
Pre-Board-3 Resume up-to 20 January 2025				



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Class: XII		Subject: APPLIED MATHEMATICS		Name of the Subject Teacher: Mr ASHISH PUNJ	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
I	12	UNIT-1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS(contd.)	. Pupil will be able to recall concepts of : <ul style="list-style-type: none"> • Modulo Arithmetic • Congruence modulo • Simple arithmetic functions • Allegation or Mixture • Numerical problems on boats and streams; partnership; pipes and cistern; races and games, scheduling • Numerical inequalities 	Matrix operations using Excel	
II	19	UNIT-1 NUMBERS, QUANTIFICATION AND NUMERICAL APPLICATIONS(contd.) UNIT-2 ALGEBRA	<ul style="list-style-type: none"> • Operations on matrices • determinants of matrix • Inverse of matrix using Cramer's rule. • Matrix Method • Solving WORD PROBLEMS related to it. 		
III	20(Up-to 29 May 2024)	UNIT- 3 CALCULUS(contd.)	Pupil will be able to recall concepts of : <ul style="list-style-type: none"> • Application of derivatives • Increasing/Decreasing functions • Maxima and Minima • Marginal cost and marginal revenue using derivatives • Integration • Indefinite integral as family of curves • Definite integral as area under the curve • <input type="checkbox"/> Integration of simple algebraic functions (primitive, by substitution, by parts) 	Plot the graphs of functions on excel and study the graph to find out the point of maxima/minima	

Summer vacation:30 May 2024 to 30 June 2024

School Reopens: 1 July 2024



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IV	22	UNIT- 3 CALCULUS(contd.) UNIT – 6 INDEX NUMBERS AND TIME BASED DATA	<ul style="list-style-type: none">• Application of Integration (consumer surplus-producer surplus)• Differential equation (definition, order, degree)• Formulating and solving linear differential equation• Application of differential equation (Growth and Decay Model)	Collect data from newspapers on traffic, sports activities and market trends and use excel to study future trends .
V	19	UNIT- 4 PROBABILITY DISTRIBUTIONS UNIT - 5 INFERENTIAL STATISTICS	<ul style="list-style-type: none">• Understand the concept of Random Variables and its Probability Distributions• Find probability distribution of discrete random variable Apply arithmetic mean of frequency distribution to find the expected value of a random variable. <ul style="list-style-type: none">• Calculate the Variance and S.D. of a random variable.• Identify the Bernoulli Trials and apply Binomial Distribution• Evaluate Mean, Variance and S.D of a binomial distribution.	Probability and dice roll situations Collect the data on weather, price, inflation, and pollution analyze the data and make meaningful inferences



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			<ul style="list-style-type: none"> • Understand the Conditions of Poisson Distribution • Evaluate the Mean and Variance of Poisson distribution 	
			<ul style="list-style-type: none"> • Define a hypothesis • Differentiate between Null and Alternate hypothesis • Define and calculate degree of freedom • Test Null hypothesis and make inferences using t-test statistic for one group / two independent groups 	
Syllabus completion: 30 August 2024				
Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024				
Half Yearly Examination: 10 September 2024 to 27 September 2024				
Second Term Resumes: 30 September 2024				
VI	18	UNIT - 8 LINEAR PROGRAMMING UNIT - 7 FINANCIAL MATHEMATICS(contd.)	<ul style="list-style-type: none"> • Identify and formulate different types of LPP • Understand feasible and infeasible solutions • Find optimal feasible solution • Explain the concept of perpetuity and sinking fund • Calculate perpetuity • Differentiate between sinking fund and saving account 	To form a cone using sector of circle and find the formula for its surface area and volume.
VII	9(Up-to 14 November 2024)	UNIT - 7 FINANCIAL MATHEMATICS(contd.)	<ul style="list-style-type: none"> • Understand the concept of Compound Annual Growth Rate • Differentiate between Compound 	Ammortization



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			Annual Growth Rate and Annual Growth Rate • Calculate Compound Annual Growth Rate • Define the concept of linear method of Depreciation • Interpret cost, residual value and useful life of an asset from the given information • Calculate depreciation • Explain the concept of EMI • Calculate EMI using various methods	
Mock series: 18 November 2024 to 29 November 2024				
Pre-Board-1: 2 December 2024 to 13 December 2024				
Pre-Board-2: 23 December 2024 to 20 January 2025				
Winter Break: 30 December 2024 to 7 January 2025				
School Reopens: 8 January 2025				
Pre-Board-3 Resume up-to 20 January 2025				



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Class: XII		Subject: ECONOMICS		Name of the Subject Teacher: MR. ACHINT BAJPAI	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
1. March 2024 (w.e.f 12 March 2024)	12	MACROECONOMICS PART-A Circular Flow of Income & National Income and its aggregates What is Macroeconomics? Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation. Circular flow of income (two sector model);	The students will be able to interpret the meaning and concept of national income and its related aggregates, He/She shall be able to identify the difference between concepts surrounding national income such as stock and flow, intermediate and final goods etc.,		
2. April 2024	19	National Income and its aggregates Methods of calculating National Income - Value Added or Product method, Expenditure method, Income method. Real and Nominal GDP. GDP and Welfare	<ul style="list-style-type: none">● He/She shall develop a reasoning so as to inclusion/exclusion of various transactions in the economy as part of different methods of calculating national income and also the rationale behind calculation of GDP on the basis of base year and current year price indexes.	Numerical / Diagrammatic Presentation	
3. May (Up-to 29 May 2024)	20	Government Budget and the Economy- Government budget - meaning, objectives and components. Classification of receipts - revenue receipts and capital receipts; classification of different components of budget. Calculation of different type of deficits.	Expenditure – revenue expenditure and capital expenditure. Measures of government deficit - revenue deficit, fiscal deficit, primary deficit their meaning.	The student will be able to understand the nature and purpose of preparing government budget, essential components of budget deficit.	



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		<p>Foreign exchange rate & Balance of Payment- Balance of payments account - meaning and components; balance of payments deficit meaning.</p> <p>Foreign exchange rate - meaning of fixed and flexible rates and managed floating. Determination of exchange rate in a free market.</p>	<p>To establish the foreign exchange rate via fixed, flexible and managed floating rate and also identifying the difference between the three.</p> <p>To understand the merits and demerits of various exchange rates and their impacts on international trade.</p> <p>To understand the outlay and positioning of components in a BOP, causes behind adverse BOP.</p>	
		Summer Vacation: 30 May 2024 to 30 June 2024		
		<u>School Reopens: 1 July 2024</u>		
4. July 2024	22	<p>Money & Banking Money - meaning and supply of money - Currency held by the public and net demand deposits held by commercial banks. Money creation by the commercial banking system. Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement</p> <p>PART-B Indian Economic Development Indian Economy on the eve of Independence Development Experience (1947-90)- A brief introduction of the state of Indian</p>	<p>The student shall be able to understand the concept and significance of money to an economy and also the key elements of the quantity of money viz. Money supply.</p> <p>The student shall learn about the infrastructure of banking industry in our country and it's working where in he/she will also understand the concept of credit creation by commercial banks in a multiple banking system and also the techniques of controlling and regulating the volume of credit by the central bank.</p> <p>To understand the state of Indian economy under the British rule. Various policies and strategies adopted by the Britishers in India, the state of agriculture, industrial and tertiary sectors in India before Independence and also various demographic indexes</p>	Research on RBI Project Work



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

		<p>economy on the eve of independence. Common goals of Five Year Plans. Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy, etc.), industry (industrial licensing, etc.) and foreign trade.</p>	<p>of India under British rule.</p> <p>To learn positive contributions of Britishers in India.</p> <p>To learn the goals of economic planning adopted by India post independence.</p> <p>To understand the various agricultural and industrial reforms such as green revolution, IPR and Import substitution policy.</p>	
<p>5. August 2024 (Up-to 30 August 2024)</p>	19	<p>Economic Reforms since 1991- Features and appraisals of liberalisation, globalisation and privatisation (LPG policy); Concepts of demonetization and GST.</p> <p>Rural Development- Key issues - credit and marketing - role of cooperatives; agricultural diversification; alternative farming - organic farming</p>	<p>To get a fair idea of the causes behind new economic reforms in India and also to learn on various sub reforms as part of liberalisation, privatisation and globalisation.</p> <p>To understand the workings of WTO and also the introduction of GST and concept of demonetisation and its effects on the economy.</p> <p>To develop a sense of understanding towards critical issues related to rural upliftment such as credit and finance, agricultural diversification , agricultural marketing etc.</p> <p>It also includes improvement in terms of policies and programmes initiated by the government towards various aspects of rural development.</p>	<p>Presentation/ Quiz/ Group Discussion/ Research on current data of Census and NSSO</p> <p>Presentation/ project work on GST/ demonetisation.</p> <p>Research work on agricultural marketing ,agricultural diversification and SHG's.</p>



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

		<p>Aggregate Demand & Income determination and Multiplier Aggregate demand and its components. Propensity to consume and propensity to save (average and marginal). Short-run equilibrium output; investment multiplier and its mechanism. Meaning of full employment and involuntary unemployment.</p> <p>Income determination and Multiplier & Excess Demand and Deficient Demand- Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply. Besides this the control of situations of excess and deficient demand shall also be understood by the student.</p>	<p>To interpret the behaviour /nature of market forces of demand and supply at the macro level which also includes to establish a relationship of these elements with corresponding sub elements like consumption, savings, investment at equilibrium levels and in general.</p> <p>In addition to this the students shall be able to establish a situation of equilibrium for the economy as part of macroeconomics wherein a sound understanding of pre equilibrium and post equilibrium situations is also dealt with.</p>	<p>Diagrammatic Presentation Numerical</p>
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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

		<u>Syllabus Completion: 30 August 2024</u>		
		<u>Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024</u>		
		<u>Half Yearly Examination : 10 September 2024 to 27 September 2024</u> <u>Second Term Resumes: 30 September 2024</u>		
6. October 2024	18	<p>Human capital Formation- How people become resource; Role of human capital in economic development; Growth of Education Sector in India.</p> <p>Employment- Formal and informal growth; problems and policies.</p> <p>Environment and Sustainable Development- Meaning, Effects of Economic Development on Resources and Environment, including global warming.</p>	<p>To understand the significance of Human Capital to a nation and study the key elements of human capital i.e. training health, migration and others.</p> <p>To understand the meaning of the term employment and concepts associated with it.</p> <p>To introduce various types of unemployment existing in India as part of rural and urban unemployment along with their causes and remedies to alleviate various types of unemployment.</p> <p>To understand the disequilibrium between demand and supply of resources. Carry capacity and absorption capacity of environment. Role of CPCB and NGT in controlling pollution and regulating sustainable development.</p>	<p>Presentation / Quiz/ Group Discussion Research on 3 R's of Sustainable Development. (Refuse, Reuse, Recycle)</p>



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

7. November 2024 (Up-to to November 2024)	9	Comparative Development Experiences of India and its Neighbours- A comparison with neighbours India and Pakistan, India and China, Issues: growth, population, sectoral development and other Human Development Indicators.	To learn about various indexes in terms of development existing in various countries neighbouring India (viz. Pakistan and China) and where does India fares well against them. Providing information on various programmes and policies initiated by the there countries on various economic issues.	Research on INDIA, PAKISTAN & CHINA
		Mock Series: 18 November 2024 to 29 November 2024		
		<u><i>Pre-Board- 1: 2 December 2024 to 13 December 2024</i></u>		
		<u><i>Pre-Board-2: 23 December 2024 to 20 January 2025</i></u>		
		<u><i>Winter Break: 30 December 2024 to 7 January 2025</i></u>		
		<u><i>School Reopens: 8 January 2025</i></u>		
		<u><i>Pre-Board- 3 Resumes up-to 20 January 2025</i></u>		



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XII		Subject: PHYSICAL EDUCATION		Name of the Subject Teacher: Mr. Arjun Bisht	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
1. March 2024 (w.e.f 12 March 2024)	12	Unit 1 - Management of Sporting Events Functions of sports events management (Planning, Organising, Staffing, Directing & Controlling) Various Committees & their Responsibilities (pre; during & post) Procedure To Draw Fixtures – Knock-Out (Bye & Seeding) & League (Staircase, Cyclic & Tabular method) and combination tournaments	Students will be able to understand the benefits of planning and also they get to know the role of different committees in any event.	PPT on how different committees work.	
2. April 2024	19	Intramural and Extramural tournament. Community sports Program (Sports day, Health Run, Run for Fun, Run for specific Cause) Unit II Children & Women in Sports • Common Postural Deformities - Knock Knee; Flat Foot; Round Shoulders; Lordosis, Kyphosis, Bow Legs and Scoliosis and their corrective measures Special consideration (Menarche & Menstrual Dysfunction) • Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)	Students will be able to draw a fixture for any tournament and that is a very important thing to conduct a sports tournament. Students will get to know about the common deformities related to legs and spine and this will be corrected. Students will understand the problems faced by women like Amenorrhea, Osteoporosis and eating disorders.	Prepare Poster on balanced diet.	



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ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

3. May (Up-to 29 May 2024)	20	<p>Unit III Yoga as Preventive measure for Lifestyle Disease</p> <p>Obesity: Procedure, Benefits & Contradictions for Vajrasana, Hastotansana, Trilokasana, Arda-Matsyendrasana</p> <p>Diabetes: Procedure, Benefits & Contradictions for Bhujangasana, Paschimottasana, Pavan muktasana, Ardha-Matsyendrasana, Kapalbhati</p> <p>Asthma: Procedure, Benefits & Contradictions for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Pashimottasana, Matsyaasana, Anulom-vilom</p> <p>Hypertension: Procedure, Benefits & Contradictions for Tadasana, Vajrasana, Pavan muktasana, Ardha Chakrasana, Bhujangasana, Shavasana.</p> <p>Back pain and Arthritis: Procedure, Benefits & Contradictions of Tadasana, ardha-chakrasana, Ushtrasana, Vakrasana, Gomukhasana, Bhadrasana & Makasasana.</p>	<p>In this chapter students will get to know the importance and benefits of Yoga and how to perform yoga asanas. Different asanas works as a preventive measure of different lifestyle disease so by using suitable asanas one can prevent particular life style disease</p> <p>Distinguish the contraindications associated with performing different asanas.</p> <p>Outline the role of yogic management for various health benefits and preventive measures.</p>	Draw diagrams of Asanas for different lifestyle diseases.
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Summer vacation: 30 May to 30 June 2024

School Reopens: 1 July 2024

4. July 2024	22	<p>Unit - IV Physical Education and Sports for CWSN (Children with Special Needs - Divyang)</p> <p>1. Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)</p> <p>2. Concept of Classification and Divisioning in Sports.</p>	<p>To make students understand the concept of Disability and Disorder.</p> <p>To teach students about the types of disabilities & disorders, their causes, and their nature.</p> <p>To make them aware of Disability</p>	
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ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		<p>3. Concept of Inclusion in sports, its need, and Implementation;</p> <p>4. Advantages of Physical Activities for children with special needs.</p> <p>5. Strategies to make Physical Activities assessable for children with special needs.</p> <p>Unit - V Sports & Nutrition</p> <p>1. Concept of balanced diet and nutrition</p> <p>2. Macro and Micro Nutrients: Food sources & functions</p> <p>3. Nutritive & Non- Nutritive Components of Diet</p> <p>4. Eating for Weight control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance ,and Food Myths</p> <p>5.Importance of Diet in Sports-Pre, During and Post competition Requirements</p>	<p>Etiquette.</p> <p>To make the students Understand the advantage of physical activity for CWSN.</p> <p>To make the students understand the importance of a balanced diet</p> <p>To clear the concept of Nutrition–Micro & Macro nutrients, Nutritive & non- Nutritive Components of diet.</p> <p>To make them aware of eating for weight loss and the results of the pitfalls of dieting.</p> <p>To understand food intolerance & food myths.</p>	
<p>5. August 2024 (Up-to 30 August 2024)</p>	<p>19</p>	<p>Unit - VI Test & Measurement in Sports</p> <p>1.Fitness Test – SAI Khelo India Fitness Test in school:</p> <p>Age group 5-8 years/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test</p> <p>Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600 mt Run/Walk, Sit & Reach flexibility test,</p>	<p>To make students Understand and conduct SAI KHELO INDIA Fitness Test and to make students Understand and conduct General Motor Fitness Test.</p> <p>To make students to determine physical fitness Index through Harvard Step</p>	<p>Determine physical fitness Index</p>



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

	<p>Strength Test (Partial Abdominal Curl Up, Push-Ups for boys, Modified Push-Ups for girls). Measurement of Cardio Vascular Fitness – Harvard Step Test – Duration of the Exercise in Seconds $\times 100/5.5 \times$ Pulse count of 1-1.5 Min after Exercise. 3. Computing Basal Metabolic Rate (BMR) 4. Rikli & Jones -</p> <ul style="list-style-type: none"> • Senior Citizen Fitness Test • Chair Stand Test for lower body strength • Arm Curl Test for upper body strength • Chair Sit & Reach Test for lower body flexibility • Back Scratch Test for upper body flexibility • Eight Foot Up & Go Test for Agility • Six-Minute Walk Test for Aerobic Endurance <p>5. Johnsen – Methney Test of Motor Educability (Front Roll, Roll, Jumping Half-Turn, Jumping full turn)</p> <p>Unit - VII Physiology & Injuries in Sport</p> <ol style="list-style-type: none"> 1. Physiological factors determining components of physical fitness 2. Effect of exercise on the Muscular System 3. Effect of exercise on the Cardio- Respiratory System 4. Physiological changes due to aging 5. Sports injuries: Classification (Soft Tissue Injuries - Abrasion, Contusion, Laceration, Incision, Sprain & Strain; 	<p>Test/Rockport Test</p> <p>To make students to calculate Basal Metabolic Rate (BMR).</p> <p>To measure the fitness level of Senior Citizens through Rikli and Jones Senior Citizen Fitness Test.</p>	<p>through Harvard Step Test.</p> <p>Graphical representation of 5 elderly people on Rikli and Jones test.</p>
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ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		<p>Bone& Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted)</p>	<p>Understanding the physiological factors determining the Components of physical fitness.</p> <p>Learning the effects of exercises on the Muscular system.</p> <p>Learning the effects of exercises on Cardio vascular system. Learning the effects of exercises on the Respiratory system.</p> <p>Learning the changes caused due to aging.</p> <p>Understanding the sports Injuries (Classification, Causes, and Prevention) Understanding the Aims & Objectives of First Aid. Understanding the Management of Injuries.</p>	
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Syllabus Completion: 30 August 2024

Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024

Half Yearly Examination : 10 September 2025 to 27 September 2024

Second Term Resumes: 30 September 2024

6. October 2024	18	<p>Unit - VIII Biomechanics and Sports</p> <ol style="list-style-type: none"> Newton's Law of Motion & its application in sports Types of Levers and their application in Sports. 	<p>Understanding Newton's Laws of Motion and their Application in Sports.</p> <p>Make students understand the lever and its application in sports.</p>	
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ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		<p>3. Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports</p> <p>4. Friction& Sports Projectile in Sports</p> <p>Unit - IX Psychology & Sports</p> <p>1. Personality; its definition & types (Jung Classification & Big Five Theory)</p> <p>2. Motivation, its type & techniques.</p> <p>3. Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it</p> <p>4. Meaning, Concept & Types of Aggressions in Sports</p> <p>5. Psychological Attributes in Sports– Self-Esteem, Mental Imagery, Self-Talk, Goal Setting</p>	<p>Make students understand the concept of Equilibrium and its application in sports. Understanding Friction in Sports.</p> <p>Understanding the concept of Projectile in sports. To make student understand Personality & its classifications. To make students understand motivation and its techniques. To make students aware about Exercise Adherence and Strategies for enhancing Adherence to Exercise.</p> <p>To make them aware of Aggression in sports and types. To make students understand Psychological Attributes in Sports</p>	<p>Make a PPT on different personalities and their characteristics.</p>
7. November 2024 (Up-to to November 2024)	9	<p>Unit X Training in Sports</p> <p>1. Concept of Talent Identification and Talent Development in Sports.</p> <p>2. Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle.</p> <p>3. Types & Methods to Develop–Strength, Endurance, and Speed.</p> <p>4. Types & Methods to Develop–Flexibility and Coordinative Ability.</p> <p>5. Circuit Training- Introduction & its importance.</p>	<p>Training in sports gives them the knowledge about speed, strength, endurance, flexibility and how come one can improve these.</p> <p>They can understand the concept of identifying the talent.</p> <p>They also got to know about different training cycle.</p>	<p>Compare and make schedule for different training programs.</p>

Mock Series: 18 November 2024 to 29 November 2024

Pre-Board- 1: 2 December 2024 to 13 December 2024



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Pre-Board-2: 23 December 2024 to 20 January 2025

Winter Break: 30 December 2024 to 7 January 2025

School Reopens: 8 January 2025

Pre-Board- 3 Resumes up-to 20 January 2025



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XII		Subject: GEOSPATIAL TECHNOLOGY		Name of the Subject Teacher: SHUCHI MISHRA	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
1. March 2024 (w.e.f 12 March 2024)	12	Ch-1 Remote Sensing <ul style="list-style-type: none"> • Introduction to remote sensing • Stages in remote sensing • Electromagnetic spectrum • Black body • Spectral distribution of energy by a black body Unit 1: Communication Skills Session 1: Active Listening	1) Learners will be knowing about basics of remote Sensing 2) Different bands in electromagnetic spectrum.	Projection of data 1. Georeferencing 2. Re-projecting the data 3. Subset Creation Software Used: Q-GIS	
2. April 2024	19	Ch-1 Remote Sensing Contd... <ul style="list-style-type: none"> • Interaction response of sun rays • Spectral reflectance signature • reflectance characteristics Soil vegetation, Water, Rock. Employability Skill Session 2: Parts of Speech 9	3) To know Interaction response to Sun. Spectral reflectance Signature 4) Reflectance characteristics Soil vegetation, Water, Rock.	1. To understand and perform the Classification for Satellite Imagery 1. To perform Unsupervised Classification 2. To perform Supervised Classification Software Used: Q-GIS	
3. May (Up-to 29 May 2024)	20	Ch-1, Remote Sensing Contd.. <ul style="list-style-type: none"> • Types of Sensor • Digital Image Processing • visual interpretation of satellite • Advanced remote Sensing technologies: RADAR, Lidar. Employability Skill:	5) To understand the types of Sensor 6) Digital Image Processing 7) Advanced remote Sensing technologies. RADAR, Lidar.	3. To know Histogram Modification 4. To enhance the image by spatial filtering Required Datasets Images – Rajnagar Extension.	



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

		Session 3 : Writing Sentences Ch-2, Geographic Information System Introduction to GIS		Software Used: Q-GIS
		Summer Reopens: 1 July 2024		
		School Reopens: 1 July 2024		
4. July 2024	22	Ch-2, Geographic Information System Contd.. <ul style="list-style-type: none"> • GIS System: GIS Function, Data structure, Vector Data • Map Projection and Coordinate System • Digital Cartography. Session 1 Motivation and Positive Attitude Ch-3, Global Positioning System: <ul style="list-style-type: none"> • GPS accuracy and accuracy factors • Session 2: Result Orientation Session 3 Self-awareness 	1)To understand GIS System: GIS Function, Data structure, Vector Data	Digitization and Thematic mapping 1.Creation of Vector Data 2.Building Topology 3. Creating Thematic Map 4. Building Query Software Used: Q-GIS
5. August 2024 (Up-to 30 August 2024)	19	Ch-3, Global Positioning System Contd.. <ul style="list-style-type: none"> • Types of GPS • list of Global navigation Satellite System • GPS today & its limitation • Uses of GPS Technology. Employability Skill: Information and Communication Technology Skills Session 1: Getting Started with Spreadsheet Session 2: Performing Basic Operations in a Spreadsheet Session 3: Working with Data and Formatting Text Session 4: Advanced Features in Spreadsheet Session 5: Presentation Software 63 Session 6: Opening, Closing, Saving and Printing a Presentation Session7: Working with Slides and Text in a Presentation Session 8: Advanced Features used in Presentation	1)To understand types of GPS 2) list of Global navigation Satellite System 3)GPS today & its limitation 4)Uses of GPS Technology.	- Spatial Analysis • Buffer Creation 1. Dissolving Boundary 2.Data Merge Software Used: Q-GIS



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Syllabus Completion: 30 August 2024

Revision-Half Yearly Examination: 2 September 2024 to 9 September 2024

Half Yearly Examination : 10 September 2025 to 27 September 2024

Second Term Resumes: 30 September 2024

6. October 2024	18	<p>Ch- 4, Trends in Geospatial Technology</p> <ul style="list-style-type: none"> • Remote sensing trends and technology • GIS trends and technology. <p>Unit 4: Entrepreneurship Skills Session 1: Entrepreneurship and Entrepreneur Session 2: Barriers to Entrepreneurship Session 3: Entrepreneurial Attitudes Session 4: Entrepreneurial Competencies</p>	1)To understand trends in RS, GIS and GPS.	<p>- Symbology and layout</p> <ol style="list-style-type: none"> 1. Zoom in, Zoom out, Pan 2. Creating Map Layout <p>Software Used: Q-GIS</p>
7. November 2024 (Up-to to November 2024)	9	<p>Ch-5, Application of Geospatial Technology</p> <ul style="list-style-type: none"> • Watershed Studies, Flood Studies • Health Studies • Utility studies • Security and Defence Studies • Disaster relief and management studies. <p>Unit 5: Green Skills Session 1: Green Jobs Session 2: Importance of Green Jobs</p>	1)To understand the applications of RS, GIS and GPS.	<p>Revision of Projection of data</p> <ol style="list-style-type: none"> 1. Georeferencing 2. Re-projecting the data 3. Subset Creation <p>Software Used: Q-GIS</p>

Mock Series: 18 November 2024 to 29 November 2024

Pre-Board- 1: 2 December 2024 to 13 December 2024

Pre-Board-2: 23 December 2024 to 20 January 2025

Winter Break: 30 December 2024 to 7 January 2024

School Reopens: 8 January 2025

Pre-Board- 3 Resumes up-to 20 January 2025



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

Class: XII		Subject: Commercial Art 052		Name of the Subject Teacher: Surender Kumar	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
March	12	Unit 1 A. The Rajasthani School	Origin and Development Sub-Schools-Mewar, Bundi, Jodhpur, Bikaner, Kishangarh and Jaipur Main features of the Rajasthani School.		
April	19	B. The Pahari School	Origin and development Sub-Schools-Basohli, Guler, Kangra, Chamba and Garhwal Main features of the Pahari School		
May	20	The Mughal and Deccan Schools of Miniature Painting	Origin and development Main features of the Mughal School		
July	22	The Mughal and Deccan Schools of Miniature Painting A. The Mughal School	Origin and development Main features of the Mughal School Krishna Lifting Mount Govardhana Falcon on a Bird-Rest Kabir and Raidas Marriage Procession of Dara Shukoh		
		B. The Deccan School	Origin and development Main features of the Deccan School Hazrat Nizamuddin Auliya and Amir Khusro Chand Bibi Playing Polo (Chaugan)		
August	19	Unit 3 A. The Bengal School of Painting and the Modern trends in Indian Art	Origin and development of the Bengal School of Painting Main features of the Bengal School of Painting Introduction to the Bengal School of Painting (i) Origin and development of the Bengal School of Painting (ii) Main features of the Bengal School of Painting Abanindranath Tagore Shiv Nandlal Bose A.R. Chughtai Meghdoot - Ram Gopal Vijaivargiya Contribution of Indian artists in the struggle for National Freedom Movement		



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ACADEMIC ANNUAL MODULE PLANNING (SESSION: 2024-25)

October	18	B. The Modern Trends in Indian Art	Paintings: Rama Vanquishing the Pride of the Ocean – Raja Ravi Varma Mother and child – Jamini Roy Haldi Grinders - Amrita Sher Gill Mother Teresa - M.F.Husain Graphic - prints: Children – Somnath Hore Devi – Jyoti Bhatt Of Walls – AnupamSud Man, Woman and Tree - K. Laxma Goud	
November	9	B. The Modern Trends in Indian Art	Sculptures: Triumph of Labour - D. P. Roychowdhury Santhal Family – RamkinkarVaij Cries Un - heard – Amar Nath Sehgal Ganesha - P.V. Janaki Ram	
December				
January				



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ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

Class: XII		Subject: Computer Science(083)		Name of the Subject Teacher: Ms. Vidhi Arora Hasija	
Module	No. of Days	Chapters and Topics to be taught	Learning Objectives	Activity Planned/ Integration of Art	
I March 2024	12	Unit III: Database Management <ul style="list-style-type: none"> • Database concepts • Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key) • Structured Query Language: Introduction, Data Definition Language and Data Manipulation Language, data types, constraints • Create database, use database, show databases, drop database, show tables, create table, describe table, alter table, drop table, insert, delete, select, operators, aliasing, distinct clause, where clause 	To have an understanding of database concepts and database management system software. To write SQL queries to create database, tables, insert/update/delete data using various constraints and clauses	Preparation of Practical file. Database Management <ul style="list-style-type: none"> • Create a student table and insert data. Implement the following SQL commands on the student table: ALTER table to add new attributes / modify data type / drop attribute o UPDATE table to modify data 	
II April 2024	19	Unit III: Database Management contd. <ul style="list-style-type: none"> • in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions, group by, having clause • joins: Cartesian product on two tables, equijoin and natural join 	To create queries using various constraints and clauses and to understand the concept of SQL join queries	ORDER By to display data in asc / desc order DELETE to remove tuple(s) , GROUP BY and find the min, max, sum, count and average	
III May 2024	20	Unit I:Computational Thinking and Programming-2 <ul style="list-style-type: none"> • Concept of File handling, Difference between Text and Binary files, relative and absolute path • Text file: opening a text file, text file open modes ,closing a text file, opening a file using with clause, writing/appending data to a text file, reading from a text file, seek and tell methods 	<ul style="list-style-type: none"> • To understand the need of Data File handling in programming • To learn text file programming which helps in maintaining data inside 	Case study based integrated questions <ul style="list-style-type: none"> • Read a text file line by line and display each word separated by a #. • Read a text file and 	



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ACADEMIC ANNUAL MODULE PLANNING(SESSION: 2024-25)

		<p>Unit III: Database Management</p> <ul style="list-style-type: none"> Interface of python with an SQL database: connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using connect(), cursor(), execute(), commit(), fetchone(), fetchall(), rowcount, creating database connectivity applications, use of %s format specifier or format() to perform queries 	<p>files by reading and writing methods using different file modes Practical implementation of text file handling worksheet Case study based integrated questions</p> <p>To understand and implement Python MySQL Connectivity</p>	<p>display the number of vowels/consonants/uppercase/lowercase characters in the file.</p> <ul style="list-style-type: none"> Remove all the lines that contain the character 'a' in a file and write it to another file. <p>Practical implementation of Python-MySQL Connectivity Project Work</p>
Summer Vacation: 30 May 2024 to 30 June 2024				
IV July 2024	22	<p>Binary file: basic operations on a binary file: open using file open modes, close a binary file, import pickle module, dump() and load() method, read, write/create, search, append and update operations in a binary file</p> <p>CSV file: concepts, import csv module, open/close csv file, write into a csv file using csv.writerow() and read from a csv file using csv.readers()</p>	<p>Practical implementation of binary file handling worksheet Case study based integrated questions</p> <p>To learn csv file programming which helps in maintaining data inside files by using different methods</p>	<ul style="list-style-type: none"> Create a binary file with roll number, name and marks. Input a roll number and update the marks. Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message <p>Case study based on integrated questions</p>



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				and Practical work through real life examples. ● Create a CSV file by entering user-id and password, read and search the password for given userid.
V August 2024	19	<p>Unit I:Computational Thinking and Programming-2</p> <ul style="list-style-type: none"> ● Functions: types of function (built-in functions, functions defined in module, user defined functions), creating user defined function, arguments and parameters, default parameters, positional parameters, function returning value(s), flow of execution, scope of a variable (global scope, local scope) ●Data Structure: Stack, operations on stack (push & pop), implementation of stack using list. 	To provide a systematic way of problem solving by programming by framing small modules known as functions To illustrate the working of different and to understand the scope of variables To provide a way of storing, organizing and retrieving data in a computer through the concepts of stack programming	Programming based on concept of function Case study based integrated questions Worksheet based on CBSE questions Practical implementation of data structure stack in Python using lists
<p>Syllabus Completion : 30 August 2024 Revision- Half Yearly Examination: 2 September 2024 to 9 September 2024 Half Yearly Examination: 10 September 2024 to 27 September 2024 Second Term Resumes: 30 September 2024</p>				
VI October 2024	18	<p>Unit I:Computational Thinking and Programming-2</p> <ul style="list-style-type: none"> ● Exception Handling: Introduction, handling exceptions using try-except-finally blocks <p>Unit II: Computer Networks ● Evolution of networking: introduction to computer networks, evolution of networking (ARPANET, NSFNET,</p>	To understand the terminology related to computer networks and to differentiate between the types of networking and	Case Study Questions Board question practise based on this topic Project Work



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		INTERNET) • Data communication terminologies: concept of communication, components of data communication (sender,receiver, message, communication media, protocols), measuring capacity of communication media (bandwidth, data transfer rate), IP address, switching techniques (Circuit switching, Packet switching) • Transmission media: Wired communication media (Twisted pair cable, Coaxial cable, Fiber-optic cable), Wireless media (Radio waves, Microwaves, Infrared waves) Unit II: Computer Networks • Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router, Gateway, WIFI card) • Network topologies and Network types: types of networks (PAN, LAN, MAN, WAN), networking topologies (Bus, Star, Tree) • Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET, VoIP • Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting	various media for data transmission. Case Study Questions Board question practise based on this topic Project Work different topologies used in Network and various communication mediums used in network and various possible cabling layouts for different types of network setup. To understand the concepts of protocols and their application.	
VII November 2024	9	Unit I:Computational Thinking and Programming-2 Revision of Python topics covered in Class XI. Conditional and iterative statements, jumping statements, random module, lists tuples and dictionaries	Recapitulation of the basic concepts of Python Programming learnt in Class 11	Practical Work • Programs based on Conditional and iterative statements, jumping statements, random module, lists tuples and dictionaries

Mock series: 18 November 2024 to 29 November 2024

Pre-Board 1: 2 December 2024 to 13 December 2024

Pre-Board 2: 23 December 2024 to 20 January 2025

Pre-Board 3 Resume upto 20 January 2025