

RUBY PARK PUBLIC SCHOOL



Syllabus Class XIII







ENGLISH

MONTH	UNIT	READING	WRITING	LITERATURE
APRIL	1	Comprehension exercises from Literary Passages	Notice writing	My Mother at Sixty- Six (Poem) The Last Lesson
MAY	2	Comprehension exercises from Literary Passages (contd.)	Notice writing (contd.)	The Third Level The Lost Spring
JUNE			UNIT TEST 1	
JUNE	3	Cased Based passages	Invitation	Deep Water
		ASL	Letter to Editor	The Tiger King Keeping Quiet Journey to the End of the Earth
JULY	4	Comprehension exercises from Discursive	Job Application Article Writing	The Rattrap Indigo
		Passages	Thucie Willing	A Thing of Beauty (poem) The Enemy
JULY		•	UNIT TEST 2	•
AUGUST	4	Comprehension exercises from Factual Passages	Report Writing	Going Places On the Face of it
AUGUST		REVISIO	ON OF BLOCK T	TEST I







AUGUST, SEPTEMBER	BLOCK TEST I					
SEPTEMBER	5	Comprehension exercises from Analytical Passages	Revision of Writing Skill	Poets and Pancakes The Interview		
OCTOBER	6	Revision	Revision of Writing Skill	Memories of Childhood A Roadside Stand (poem)		
NOVEMBER	7	ASL	Revision of Writing Skill	Aunt Jennifer's Tigers (poem)		
NOVEMBER	REVISION					
NOVEMBER, DECEMBER	PRE-BOARD EXAMINATION					







PHYSICS

MONTH	CHAPTER	TOPICS	SUBTOPICS
APRIL	I & II	ELECTROSTATICS	Electric charges and their conservation. Coulomb's law - force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines; electric dipole, electric field due to a dipole; torque on a dipole in a uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside). Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two point charges and of electric dipoles in an electrostatic field.







		Session: 2024 - 25	
MAY	IX	RAY OPTICS	Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarisation, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor(no derivation, formulae only) Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection and optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lens-maker's formula. Magnification, power of a lens, combination of thin lenses in contact. Refraction of light through a prism. Optical instruments:
	IX	RAY OPTICS	lenses, thin lens formula, lens-maker's formula. Magnification, power of a lens, combination of thin lenses in contact. Refraction of light through a prism. Optical instruments:. Microscopes and astronomical telescopes (reflecting and refracting)
MAY - JUNE		REVISION AND	and their magnifying powers. UNIT TEST 1







JUNE	III	CURRENT ELECTRICITY	Electric current, flow of electric charges in a metallic conductor, drift velocity and mobility, and their relation with electric current; Ohm's law, V-I characteristics (linear and non- linear), electrical energy and power, electrical resistivity and conductivity. Temperature dependence of resistance. Internal resistance of a cell, potential difference and emf of a cell, combination of cells
			in series and in parallel. Kirchhoff 's laws . Wheatstone bridge







JUNE	IV & V	Magnetic Effects of Current and Magnetism	Concept of magnetic field, Oersted's experiment.Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire, straight solenoid(only qualitative treatment). Force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field. Force between two parallel current- carrying conductors- definition of ampere. Torque experienced by a current loop in a uniform magnetic field; current loop as a magnetic dipole and its magnetic dipole moment. Moving coil galvanometer- its current and voltage sensitivity and conversion to ammeter and voltmeter.
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1	_	Session: 2024 - 25	
			Bar magnet, bar magnet as an equivalent solenoid
			(qualitative treatment only).
			Magnetic field intensity due
			to a magnetic dipole (bar
			magnet) along its axis and
			perpendicular to its axis
			(qualitative treatment only).
			Torque on a magnetic dipole
			(bar magnet) in a uniform
			magnetic field (qualitative
			treatment only); magnetic field lines.
			Magnetic properties of
			materials- Para-, dia- and
			ferro -
			magnetic substances, with
			examples. Magnetisation of
			materials; Effect of
			temterature on Magnetic
			Properties.
			Electromagnetic induction;
		Electromagnetic	Faraday's law, induced emf
JULY	VI & VII	Induction and	and current; Lenz's Law,.
		Alternating Currents	Self and mutual inductance.
			Alternating currents, peak and
			rms value of alternating
			current
			/voltage; reactance and
			impedance; LCR series
			circuit(Phasors only),
			resonance; power in AC
			circuits, power factor,
			wattless current.AC
			generator and transformer.
JULY- AUGUST		REVISION AND UN	NIT TEST II
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AUGUST	VIII	WAVE OPTICS	Basic idea of displacement current, Electromagnetic waves and their characteristics, their transverse nature (qualitative ideas only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, x-rays, gamma rays) including elementary facts about their uses. Wavefront and Huygens' principle, reflection and refraction of plane wave at a plane surface using wavefronts. Proof of laws of reflection and refraction using Huygens' principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum (qualitative treatment only).
AUGUST - SEPTEMBER		REVISION AND BL	
		Photoelectric Effect	Dual nature of radiation,
SEPTEMBER	XI	(Dual nature of radiation and matter)	Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation - particle nature of light .Experimental Study of Photoelectric Effect.Matter







			waves - wave nature of particles, de Broglie relation.
OCTOBER	XII & XIII	ATOMS AND NUCLEI	Alpha - particle scattering experiment; Rutherford's model of atom; Bohr model of Hydrogen atom ,expression of radius of nth possible orbit, velocity and energy of electron in this orbit of Hydrogen line spectra(qualitative treatment only). Composition and size of nucleus, nuclear force, Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission and fusion.
NOVEMBER	XIV	ELECTRONIC DEVICES	Energy Baands in conductors, Semiconductors and insulators(qualitative treatment only), intrinsic and extrinsic semi conductors ,p type and n type ,pn junction; semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier;
NOVE MBER- DECEMBER	REV	ISION AND PREBOAR	RD EXAMINATION 1
DECEMBER - JANUARY	PREBOARD EXAMINATION 2		







CHEMISTRY

MONTH	UNIT	TOPIC	SUB TOPIC
APRIL	I	Solutions	Types of solutions. Expression of concentration of solutions of solids in liquids Solubility of gasses in liquid, solid in liquid. Colligative properties: relative lowering of vapour pressure, Raoult's law, elevation of boiling point, depression of freezing point, osmotic pressure
MAY	I	Solutions	Determination of molecular masses using colligative properties Abnormal molecular mass, Van't Hoff factor
	II	Electrochemistry	Conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration. Kohlrausch's Law.
JUNE			UNIT TEST-I
	II	Electrochemistry	EMF of a cell, standard electrode potential Nernst equation and its application to chemical cells. Relation between Gibbs energy change and EMF of a cell. Electrolysis and laws of electrolysis (elementary idea). Electrolytic cells and Galvanic cells, Lead accumulator Dry cell, Fuel cells; corrosion.







	III	Chemical Kinetics	Rate of a reaction (average and instantaneous) Factors affecting rates of reaction. Order and molecularity of a reaction Rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions) Activation energy, Arrhenius equation Concept of collision theory (elementary idea, no mathematical treatment)	
	VI	Haloalkanes & Haloarenes	Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties, mechanism of substitution reactions. Optical isomerism. Haloarenes: Nature of C-X bond, substitution reactions (directive influence of halogen for monosubstituted compounds only). Uses and environmental effects of dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	
JULY	VII	Alcohols, Phenols & Ethers	Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only); identification of primary, secondary and tertiary alcohols; mechanism of dehydration, uses, with special reference to methanol and ethanol. Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols. Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.	
	UNIT TEST-II			







	VIII	Aldehydes, Ketones & Carboxylic Acids	Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, and mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes; uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses
SEPTEMBER	IX	Amines	Preparation, physical and chemical properties, uses, identification of primary secondary and tertiary amines. Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.
	IV	d - & f - Block Elements	General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals - metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation.
OCTOBER	V	Coordination Compounds	Coordination compounds: Introduction, Werner's theory, ligands, coordination number, colour, magnetic properties and shapes IUPAC nomenclature of mononuclear coordination compounds, Isomerism (structural and stereo) Bonding, VBT, CFT Importance of coordination compounds (in qualitative analysis, extraction of metals and biological systems).







	X	Biomolecules	Carbohydrates – Classification (aldoses and ketoses), monosaccharide (glucose and fructose), D-L configuration, oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen): importance of carbohydrates. Proteins - Elementary idea of a - amino acids, peptide bond, polypeptides, proteins, primary structure, secondary structure, tertiary structure and quaternary structure (qualitative idea only), denaturation of proteins; enzymes. Vitamins – Classification and functions. Nucleic Acids: DNA and RNA
NOVEMBER		REVISION	
DECEMBER		PRE-BOARD EXAMINATION	
JANUARY		PRACTICE TEST	







BIOLOGY

MONTH	UNIT	TOPICS
APRIL	REPRODUCTION	SEXUAL REPRODUCTION IN FLOWERING PLANTS
MAY	REPRODUCTION	HUMAN REPRODUCTION
JUNE		UNIT TEST I
JUNE	REPRODUCTION	REPRODUCTIVE HEALTH
	GENETICS AND EVOLUTION	PRINCIPLES OF INHERITANCE AND VARIATION
JULY	GENETICS AND EVOLUTION	MOLECULAR BASIS OF INHERITANCE
		THEORY OF EVIDENCES OF EVOLUTION
	BIOLOGY IN HUMAN WELFARE	MICROBES IN HUMAN WELFARE
	BIOLOGY IN HUMAN WELFARE	HUMAN HEALTH AND DISEASES
JULY- AUGUST	1	UNIT TEST II
AUGUST	BIOTECHNOLOGY	BIOTECHNOLOGY: PRINCIPLES







		AND PROCESS
AUGUST- SEPTEMBER	BLOCK TEST I	
SEPTEMBER	BIOTECHNOLOGY	BIOTECHNOLOGY AND ITS APPLICATION
	ECOLOGY	ORGANISMS AND POPULATION
OCTOBER	ECOLOGY	ECOSYSTEMS
		BIODIVERSITY AND CONSERVATION
NOVEMBER	REVISION	
DECEMBER	PRE - BOARD EXAMINATION	
JANUARY	PRACTICE TEST	







MATHEMATICS

MONTHS	TOPICS	SUBTOPICS
APRIL-MAY	Relations and Functions	Types of relations: reflexive, symmetric, transitive and equivalence relations.
	i unetions	One to one and onto functions.
JUNE		UNIT TEST 1
	Inverse	Definition, range, domain, principal value branch.
	Trigonometric Functions	Graphs of inverse trigonometric functions.
JUNE	Continuity & Differentiabili ty	Continuity, Differentiability, chain rule, derivative of inverse trigonometric functions, like and and and and and and and and logarithmic functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order
		derivatives.
	Applications of Derivatives	Applications of derivatives: rate of change of quantities, increasing/ decreasing functions,
JULY	Applications of Derivatives geometrically and second derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as reallife situations).	
JULY	Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations of matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Noncommutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of	







inverse, if it exists; (Here all matrices will have real entries).
Determinant of a square matrix (up to 3 x 3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix

JULY		UNIT TEST2
		Introduction, related terminology such as constraints, objective function, optimization,
	Linear Programming	Graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).
AUGUST	Integrals	Indefinite Integrals: Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types and problems based on them. \[\text{\texi{\text{\tex{\tex
		$\int \sqrt{0^2 \pm 0^2} d d d d d d d d d $
AUGUST	REV	ISION FOR BLOCK TEST 1

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AUGUST- SEPTEMBER		BLOCK TEST 1	
SEPTEMBER- OCTOBER	Probability	Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution, mean of random variable.	
	Application s of the Integrals	Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only)	
	Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type:		
NOVEMBER	REVISION		
DECEMBER	PRE BOARD EXAMINATION		







ECONOMICS

MONTH	TOPIC	SUB-TOPIC
MARCH	Circular Flow Of Income and Basic Concepts Of Macroeconomics	Stock and flow, Real flow and money flow, Circular flow of income in a two sector economy, Consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.
APRIL	GDP And Welfare	Nominal GDP and Real GDP. Limitations of treating GDP as an indicator of welfare
	Methods of calculating National Income - Value Added or Product method	Steps involved in calculating, Precautions, Numericals, Problems of double counting.
	Methods of calculating National Income - Income method	Steps involved in calculating National Income, Precautions of calculating National income through income method, Numerical, Concepts of Compensation of Employees, Operating Surplus, Mixed Income.
MAY		Steps involved in calculating National Income, Precautions of calculating National income through expenditure method, Numerical, Concepts of Private final Consumption Expenditure, Government Final consumption
	Methods of calculating National Income -Expenditure Method	expenditure, Gross domestic capital formation, Net Exports.







	Indian economy on the eve of independence	Performance of agriculture, industry during British rule. Foreign Trade and demographic profile during British Rule. Occupational structure during British Rule. State of infrastructure during British rule.	
		Indian economic system and common goals of Five Year Plans. Main features, problems and policies of agriculture (institutional aspects and new	
		agricultural strategy), industry (IPR	
	Indian economic system and	1956; SSI – role & importance) and	
	common goals of five year plans	foreign trade.	
JUNE	UNIT TEST-1		
	Features and appraisals of liberalisation,	Reasons for introducing NEP, Financial Sector Reforms, Tax Reforms, Foreign Exchange Reforms, Trade and Investment Policy Reforms.	
	Globalisation and Privatisation (LPG policy), concepts of demonetization and GST	Meaning of globalisation, outsourcing, World Trade Organisation, Reforms in agriculture, Reforms in Industry, Disinvestment.	
	Money and Banking	M1 measure of money supply, suppliers of money in an economy, Process of credit creation with concept of Legal Reserve Ratio. RBI'S method of regulating money supply in an economy with its quantitative (Repo	







		rate, Reverse repo rate, bank rate, CRR, SLR. OMO) and qualitative (Margin Requirement) tools.	
JULY	Current challenges facing Indian Economy-Human Capital Formation, Rural Development, Employment	How people become resource, role of human capital in economic development and growth of education sector in India. Credit and marketing in rural India, key issues, role of cooperatives, agricultural diversification, alternate farming-organic farming. Growth and changes in workforce participation rate in formal and informal sectors: problems and policies.	
JULY- AUGUST	UNIT TEST-II		
AUGUST	Government Budget and the Economy.	Meaning and objectives of Government Budget, components, classification of receipts- revenue receipts and capital receipts, classification of expenditure-revenue and capital expenditure. Balanced, surplus and deficit budgetmeasures of government deficits.	
	Determination of Income and Employment	Aggregate demand and its components, Propensity to consume and save, short- run equilibrium output, investment multiplier and its mechanism. Meaning of full employment and underemployment, problems of	







		deficient and excess aggregate demand measures to correct them- changes in government spending, taxes and money supply.
AUGUST- SEPTEMBE R	REVISION	AND BLOCK TEST-1
SEPTEMBE R	Sustainable Development	Meaning, effects of economic development on resources and environment and global warming.
	Development experience of India-A comparison with neighbours	Comparison of India with China and Pakistan on issues of economic growth, population, sectoral development and other human development indicators.
OCTOBER	Balance of Payments and Foreign Exchange Rate	Balance of payments-meaning and components. Surplus and deficit balance of payments. Foreign exchange ratemeaning of fixed and flexible and managed floating. Determination of exchange rate in a free market, merits and demerits of fixed and flexible exchange rate. Managed Floating exchange rate.
NOVEMBER	PRE-BOARD-1	
DECEMBER	Pl	RE-BOARD-2







ACCOUNTANCY

MONTH	TOPIC	SUBTOPIC
	Company Accounts	Issue of Shares at Par and Premium and consideration other than cash Calls in Arrear, Calls in Advance and Over Subscription Forfeiture of shares issued at par and premium and there subsequent reissue. Oversubscription with Forfeiture Balance Sheet Representation as per Schedule III of Companies Act 2013 of Shareholders Fund (including pro rata)
APRIL	Company Accounts	Pro Rata allotment and balance sheet representation continued Issue of Debentures - Issued at Par, Premium and Discount, Issue of Debentures as Collateral Securities and Issue of Debentures for consideration other than cash. Writing off of interest on Debentures
	Analysis of Financial Statements	Financial Statements of Company (Representation of Balance Sheet and Statement of Profit and Loss according to Schedule III)
MAY	Analysis of Financial Statements	Comparative Statement and Common size statement. Ratio Analysis -Liquidity, Solvency ratios
		UNIT TEST I
JUNE	Analysis of Financial Statements	Ratio Analysis-Activity and Profitability Ratios Cash Flow Statement
JULY	Financial statement	Cash Flow Statement







	Analysis	
	Partnership	Fundamentals of Partnership - Theory, P/L Appropriation Account, Interest on Capital, Interest on Drawings, Fluctuating and Fixed Capital Accounts, Rectification of Closed Accounts and Guarantee of Minimum Share of Profit
JULY- AUGUST		UNIT TEST II
AUGUST	Partnership	Change in Profit Sharing Ratio among existing Partners - Calculation of Sacrificing and Gaining Ratio, Valuation of Goodwill, Treatment of Goodwill, Treatment of Reserves and Accumulated Profits and Revaluation of Assets and Liabilities. Including preparation of a new balance sheet.
AUGUST- SEPTEMBER	BLOCK TEST-I	
SEPTEMBER	Partnership	Admission of a Partner - Premium for Goodwill and preparation of Revaluation Account, Partners Capital Account and Balance Sheet of reconstituted firm along with Hidden Goodwill
OCTOBER	Partnership	Adjustment of Capital in admission of a partner Retirement of a Partner along with Partner's Loan Account and Death of a Partner along with Executor's Loan Account
	Partnership	Dissolution of a firm along with Memorandum Balance Sheet and Journal Entries.







NOVEMBER	PRE BOARD I
DECEMBER	PRE BOARD II







BUSINESS STUDIES

MONTH	TOPIC	SUBTOPIC
	Nature and Significance of Management	Characteristics and Objectives Of management, Nature and levels of Management Functions of Management and Coordination
	Principles of Management	Nature of Principles of Management, Importance of Principles of Management and Fayol's Principle
APRIL	Principles of Management	Fayol's Principle Contd and Taylor's Principles and Technique and Comparison between Taylor and Fayol
	Business Environment	Introduction of Business Environment, Features and Importance, Dimensions of business environment. Dimensions of business environment, Demonetisation- concept and importance, Demonetisation
	Marketing Management	Marketing Management - Meaning, Functions and Marketing Philosophies and Marketing Mix Introduction
MAY	Marketing Management	Marketing Mix -Product, Price, Place and Promotion along with Public Relations
		UNIT TEST I
JUNE	Financial Management	Definition of Financial Management, Three important decisions- Meaning and Factors affecting the same. Financial Planning-







		Objectives and Importance, Capital structure	
		concept and factors affecting Capital structure	
	Financial Management	Trading on Equity - its mathematical proof. Fixed and Working Capital and factors affecting Fixed and Working capital	
JULY	Financial Markets	Concept, Types, Money market and its instruments, Distinction between Money Market and Capital Market, Stock Exchange and its Function and Trading Procedure and Securities and Exchange Board of India - Objectives and functions	
JULY- AUGUST	UNIT TEST II		
	Consumer Protection	Concept and Importance, Consumer Protection Act 2019, Role of NGO's and Non-Governmental organisations	
AUGUST	Planning	Concept and Importance, Limitations, Planning Process and Types of Plans	
	Organising	Concept and Importance, Organising Process, Structure of Organisation - Divisional and Functional Structure, Types of Organising, Formal and Informal, Delegation and Decentralisation-Concept, Elements Importance	
AUGUST- SEPTEMBER		BLOCK TEST I	
SEPTEMBER	Organising	Delegation and Decentralisation- Concept,	







		Importance and Elements
	Staffing	Concept and Importance, Staffing as a part of HRM, Staffing Process and Sources of Recruitment - Internal and External - Merits and Demerits Selection Process, Training and Development - Concept, Importance and Methods
OCTOBER	Directing	Concepts, Importance and Elements. Motivation-Concept, Maslow's Theory and Financial and Non-Financial Incentives, Leadership - Concepts, Styles of Leadership, Communication - Concept, Formal and Informal Communication, Barriers to Communication and how to overcome Barriers to Communication
	Controlling	Concept, Importance, Process of Controlling, Relationship between Planning and Controlling.
NOVEMBER	PRE-BOARD I	
DECEMBER	PRE-BOARD II	







ENTREPRENEURSHIP

MONTH	TOPIC	SUBTOPIC
APRIL	Entrepreneuri al Opportunity	 Elements of Business opportunity Factors involved in sensing opportunity Concept of environmental scanning Factors affecting business environment Meaning of idea fields Various sources of idea fields Technique of transformation of ideas into opportunities Understanding trend spotting Creative and innovative processes
	Enterprise Planning	Type of economic activities Secondary 2. Forms of business organizations
MAY	Enterprise Planning	3. Business Plan4. Format of Business Plan5. Formalities required for starting a business
	UNIT TEST 1	
JUNE	Enterprise Marketing	 What are Goal setting and Smart Goals Various marketing strategies used in a firm Understanding in detail 4 P's in marketing Understanding the concepts of Brand, Logo and







		Tagline
		5. Meaning and methods of negotiation
	Enterprise	6. Understanding the importance of employees, customer and vendor
JULY	Marketing	7. Understanding the importance of quality in customer satisfaction
		8. Various reasons for business failures
	Enterprise	1. Detail about franchising and its types
	Growth Strategies	2. How growth of firm possible through merger and acquisition
JULY- AUGUST	UNIT TEST II	
AUGUST	3. Types and meaning of mergers and acquisitions	
		4. Understand the reasons for mergers and acquisitions
	Enterprise Growth	5.Understand the reasons for failure of mergers and acquisitions
	Strategies	6.Concept of value addition
		7. Meaning of value chain and requirement of value chain management
AUGUST-	DI OCIZ EDICE I	
SEPTEMBER	BLOCK TEST I	
SEPTEMBER	Business	1. Concept of Unit price,
	Arithmetic	2. Break even point and its calculations







		3.Meaning of Inventory control and E.O.Q
OCTOBER	Business Arithmetic	 4. Meaning of cash flow projection and concept of working capital 5. Terminologies of Financial management and budgets 6. Concept and calculation of Return on Investment and Return on Equity
	Resource Mobilisation	 Understand the need of finance in Business Discuss the various sources of funds required for a firm Understand the ways of raising funds in primary market Angel Investors and Venture capitalists- Features and funding
NOVEMBER	PRE BOARD I	
DECEMBER	PRE BOARD II	







COMPUTER SCIENCE

MONTH	TOPIC	SUB-TOPIC
		Tokens in Python
		Variables and Assignments
	Drython	Simple Input and Output
MARCH	Python Revision	Data Types
MAKCII	Tour -I	Mutable and Immutable Types
		Expressions
		Statement Flow Control
		Looping Statements
		Strings in Python
APRIL	Python	Lists in Python
AIKIL	Revision	Tuples in Python Dictionaries in Python
	Tour- II	Sorting Techniques
	Working	Types of function (built-in functions, functions defined in
	with Functions	module, user defined functions), creating user defined
		function, arguments and parameters, default parameters,
	XX7 1 '	positional parameters, keyword parameters
	Working with	Function returning value(s), flow of execution, scope of a
	Functions	variable (global scope, local scope), Programs in user defined functions
MAY	Using	Using Python libraries using import and from statements,
	Python	built-in functions of math module (ceil, floor, pow, sqrt,
	Libraries	fabs, sin, cos, tan), random module (random, randint,
		randrange), statistics module (mean, mode, median)
MAY - JUNE	UNIT TEST - I	
		Introduction to files, types of files (Text file, Binary file, CSV
		file), relative and absolute paths
		Text file: opening a text file, text file open modes (r, r+, w,
JUNE	File Handling	w+, a, a+), closing a text file, opening a file using with clause,
		writing/appending data to a text file using write() and
		writelines(), reading from a text file using read(), readline()
		and readlines(), seek and tell methods, manipulation of data in a text file
		Binary file: basic operations on a binary file: open using file
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Syllabus Class XII



		open modes (rb, rb+, wb, wb+, ab, ab+), close a binary file,
		import pickle module, dump() and load() method, read,
		write/create, search, append and update operations in a
		binary file
		CSV file: import csv module, open/ close csv file, write into a
		csv file using writer(), writerow(), writerows(), and read from
JULY		a csv file using reader()
	Exception	Introduction, handling exceptions using try – except block,
	Handling	finally keyword.

ata ructure near sts	Stack, operations on stack (push & pop), implementation of stack using list. Database concepts: introduction to database concepts and its need
	1
anagem t	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, datatype (char(n), varchar(n), int, float, date), constraints (not null, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter table (add and
	remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count), group by, having clause, joins: cartesian







Session: 2024 - 25		
		product on two tables, equijoin and natural join
AUGUST		REVISION FOR BLOCK TEST - I
AUGUST -		
SEPTEMBER		BLOCK TEST - I
	Interface	Connecting SQL with Python, performing insert, update,
SEPTEMBER	Python	delete queries using cursor, display data by using fetchone(),
	with	fetchall(), rowcount, creating database connectivity
	MySQL	applications, use of %s format specifier or format() to
		perform queries
		Evolution of networking: introduction to computer networks,
		evolution of networking (ARPANET, NSFNET,
		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, Co-axial cable, Fiber-optic cable),
	Computer	Wireless media (Radio waves, Microwaves, Infrared
OCTOBER	Computer Networks	waves)
	TACLWOIKS	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
		III II D, ILLINLI, YOII







	Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting
	Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting
NOVEMBER	REVISION FOR PRE - BOARD - I
NOVEMBER -DECEMBER	PRE - BOARD - I
DECEMBER - JANUARY	PRE - BOARD - II







HISTORY

MONTH	UNIT	TOPICS/THEMES	
	1	Bricks, Beads and Bones The Harappan Civilisation	
APRIL	2	Kings, Farmers and Towns Early States and Economies	
	3	Kingship, Caste and Class Early Societies	
MAY	4	Thinkers, Beliefs and Buildings	
MAY - JUNE		UNIT TEST I	
JUNE	5	Through the Eyes of Travellers: Perceptions of Society	
	6	Bhakti-Sufi Traditions: Changes in Religious Beliefs and Devotional tests	
JULY	7	An Imperial Capital: Vijaynagara	
JULY - AUGUST	UNIT TEST II		
	8	Agrarian Society and the Mughal Empire	
AUGUST	9	Colonialism and the country side: Exploring Official Archives	
AUGUST	REVISION FOR BLOCK TEST I		







AUGUST-	BLOCK TEST - I		
SEPTEMBER			
SEPTEMBER	10	Rebels and the Raj: 1857 Revolt and its Representations	
OCTOBER	11	Mahatma Gandhi and the Nationalist Movement	
NOVEMBER	12	Framing the Constitution: The Beginning of a New Era	
NOVEMBER	RI	EVISION FOR PRE-BOARD I	
NOVEMBER-		PRE-BOARD - I	
DECEMBER			
DECEMBER- JANUARY	PRE-BOARD - II		







GEOGRAPHY

F	FUNDAMENTALS OF HUMAN GEOGRAPHY [PART-A]					
MONTH	UNIT	TOPIC	SUBTOPIC			
APRIL	I	Human Geography	Nature and scope			
MAY	II A	People	Population-distribution, density and growth. Population change-Components of population change, Demographic transition.			
JUNE	II B	People	Human development - concept; selected indicators, international comparisons			
		UNIT TE	ST 1			
III A		Human Activities	Primary activities - concept and changing trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agricultural and allied activities - some examples from selected countries			
JULY	III B	Human Activities	Secondary activities-concept; manufacturing: types - household, small scale, large scale; agro based and mineral based industries; people engaged in secondary activities - some examples from selected countries			
	III C	Human Activities	Tertiary Activities-Concept; Trade, Transport And Tourism; Services; People Engaged In Tertiary Activities - Some Examples From Selected Countries			
		UNIT T	TEST 2			
AUGUST	III D	Human Activities	Quaternary Activities-Concept; People Engaged In Quaternary Activities - Case Study From Selected			







			Countries			
	BLOCK TEST 1					
SEPTEMBER	IV A	Transport, Communication and Trade	Land Transport - Roads, Railways; Trans- Continental Railways. Water Transport- Inland Waterways; Major Ocean Routes. Air Transport- Intercontinental Air Routes. Oil And Gas Pipelines. Satellite Communication And Cyber Space- Importance And Usage For Geographical Information; Use Of GPS.			
OCTOBER	V	International Trade	International Trade- Bases And Changing Patterns; Ports As Gateways Of International Trade			
NOVEMBER	V	International Trade	Role Of WTO in International Trade			
DECEMBER	PRE BOARD					







POLITICAL SCIENCE

MONTH	UNIT	NIT TOPICS/THEMES		
	1	THE END OF BIPOLARITY		
APRIL	2	CONTEMPORARY CENTRES OF POWER		
	3	CONTEMPORARY SOUTH ASIA		
MAY	4	INTERNATIONAL ORGANIZATIONS		
	1	UNIT TEST I		
JUNE	5	SECURITY IN THE CONTEMPORARY WORLD		
	6	ENVIRONMENT AND NATURAL RESOURCES		
	7	GLOBALISATION		
JULY	8	CHALLENGES OF NATION BUILDING		
		UNIT TEST II		
	9	END OF ONE PARTY DOMINANCE		
AUGUST	10	POLITICS OF PLANNED DEVELOPMENT		
	11	INDIA'S EXTERNAL RELATIONS		
SEPTEMBER	12	CHALLENGES TO AND RESTORATION OF THE CONGRESS SYSTEM		
SEL LEMIDEK	13	THE CRISIS OF DEMOCRATIC ORDER		
	1	BLOCK TEST I		
OCTOBER	14	REGIONAL ASPIRATIONS		
NOVEMBER	15	RECENT DEVELOPMENTS IN INDIAN POLITICS		
DECEMBER	PRE-BOARD			







PSYCHOLOGY

MONTH	UNIT	TOPICS	
APRIL	IV	Psychological Disorders	
MAY	V	Therapeutic Approaches	
JUNE	UNIT TES	ST- I	
JUNE-JULY	I	Variation In Psychological	
		Attributes	
	II	Self and Personality	
JULY-AUGUST	UNIT TEST- II		
AUGUST	III Meeting Life Challenges		
AUGUST-SEPTEMBER	BLOCK T	TEST- I	
SEPTEMBER	VI	Attitude and Social	
		Cognition	
OCTOBER	VII	Social Influence and Group	
		Processes	
NOVEMBER	REVISION		
NOVEMBER-	PRE-BOARD-I		
DECEMBER			
DECEMBER- JANUARY	PRE- BOARD- II		







PHYSICAL EDUCATION

MONTH	UNIT	TOPIC	SUB TOPIC		
			Function of Sports Events Management		
		Management of	(Planning, Organising, Staffing, Directing & Controlling)		
APRIL	1	Sporting Event	Various Committees & their Responsibilities		
			(Pre, During and Post)		
			Fixture and its Procedures- Knock-Out (Bye		
			& Seeding) & League (Staircase, Cyclic &		
			tabular method) and Combination tournament		
			Intramural & Extramural tournaments -		
			Meaning, Objectives & Its Significance		
			Community sports program (Sports Day, Health Run, Run for Fun, Run for Specific		
			Cause & Run for Unity)		
			Exercise guidelines of WHO for different age		
			groups.		
MAY	2	Children &	Common Postural Deformities - Knock Knee,		
		Women in Sports	Bow Legs, Flat Foot, Round Shoulders,		
			Lordosis, Kyphosis and Scoliosis and their		
			respective corrective measures.		
			Women's participation in Sports - Physical,		
			Psychological, and social benefits.		
			Special consideration (Menarche & Menstrual		
			Dysfunction)		
			Female Athletes Triad (Osteoporosis,		
JUNE			Amenorrhoea, Eating Disorders) UNIT TEST 1		
JUNE			Obesity: Procedure, Benefits &		
			Contraindications for Tadasana,		
			Katichakrasana, Pavanmuktasana,		
		Yoga as	Matsayasana, Halasana, Pachimottansana,		
JUNE	3	Preventive	Ardha – Matsyendrasana, Dhanurasana,		
		measures for	Ushtrasana, Surya bhedana Pranayama.		







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		Lifestyle Disease	Diabetes: Procedure, Benefits &
			Contraindications for Katichakrasana,
			Pavanmuktasana, Bhujangasana,
			Shalabhasana, Dhanurasana, Supta-
			Vajrasana, Paschimottanasana, Ardha-
			Matsyendrasana, Mandukasana,
			Gomukasana, Yogmudra, Ushtrasana,
			Kapalabhati.
			Asthma: Procedure, Benefits &
			Contraindications for Tadasana, Urdhva
			hasthasana, Uttana Mandukasana,
			Bhujangasana, Dhanurasana, Ushtrasana,
			Vakrasana, Kapalbhati, Gomukhasana,
			Matsyasana, Anuloma- Viloma
			Hypertension: Procedure, Benefits &
			Contraindications for Tadasana,
			Katichakrasana, Uttanpadasana, Ardha
			Halasana, Sarala Matyasana, Gomukhasana,
			Uttan Mandukasana, Vakrasana,
			Bhujangasana, Makarasana, Shavasana, Nadi-
			Shodhanapranayam, Sitlipranayam.
			Back Pain and Arthritis: Procedure,
			Benefits & Contraindications of Tadasana,
			Urdhawahastootanasana, Ardh-Chakrasana,
			Ushtrasana, Vakrasana, Sarala
			Maysyendrsana, Bhujangasana,
			Gomukhasana, Bhadrasana, Makarasana,
			Nadi-shodhana Pranayama
		Physical	Organizations promoting Disability Sports
		Education &	(Special Olympics; Paralympics;
JULY		Sports For CWSN	Deaflympics)
	4	(Children With	
		Special Needs -	Concept of Classification and Divisioning in
		Divyang)	Sports.
			Concept of Inclusion in sports, its need, and
			Implementation
			Advantages of Physical Activities for children
			with special needs
			Strategies to make Physical Activities
			accessible for children with special needs.
-			-







JULY	UNIT TEST 2			
			Concept of balance diet and nutrition.	
AUGUST	5	Sports	Macro and Micro Nutrients; Food sources &	
		& Nutrition	functions.	
			Nutritive & Non-Nutritive Components of	
			Diet.	
			Eating for Weight control - A Healthy	
			Weight, The Pitfalls of Dieting, Food	
			Intolerance, and Food Myths	
			Importance of Diet in Sports-Pre, During and	
			Post competition Requirements	
			Fitness Test- SAI Khelo India Fitness Test in school:	
			n Age group 5-8 yrs/class 1-3: BMI,	
			Flamingo Balance Test, Plate Tapping	
			Test,	
			n Age group 9-18 yrs/ class 4-12: BMI,	
ATICTICE		TT	50mt Speed test, 600 mts. Run/ Walk, Sit &	
AUGUST	6	Test &	Reach flexibility test, Strength Test	
		Measurement In	(Abdominal Partial Curl Up, Push-Ups for boys, and Modified Push-Ups for girls).	
		Sports	Measurement of Cardio- Vascular Fitness -	
			Harvard Step Test - Duration of the Exercise	
			in Seconds x100/5.5 X Pulse count of 1-1.5	
			Min after Exercise.	
			Computing Basal Metabolic Rate (BMR)	
			Johnson- Methney test of motor educability	
			(Front roll, Jumping half- turn, Jumping full	
			turn.)	
AUGUST		REVIS	ION OF BLOCK TEST-I	
AUGUST/			BLOCK TEST-I	







			Physiological factor determining component of Physical Fitness
SEPTEMBER	7	Physiology &	Effect of exercise on Muscular System
		Injuries in Sports	Effect of exercise on Cardio - Respiratory
			System
			Physiological changes due to aging
			Sports injuries: Classification (Soft Tissue
			Injuries: (Abrasion, Contusion, Laceration,
			Incision, Sprain & Strain)
			Bone & Joint Injuries: (Dislocation,
			Fractures: Green Stick, Comminuted,
			Transverse Oblique & Impacted).
			Newton's Law of Motion & its application in
SEPTEMBER	8	Biomechanics &	sports
		Sports	Types of Levers and their application in
			Sports.
			Equilibrium - Dynamic & Static and Centre
			of Gravity and its application in sports
			Friction & Sports
			Projectile in Sports.
			Personality; its definition & types (Jung
OCTORED	0	D11 0	Classification & Big Five Theory)
OCTOBER	9	Psychology &	Motivation, its type & techniques
		Sports	Exercise Adherence: Reasons, Benefits &
			Strategies for Enhancing it
			Meaning, Concept & Types of Aggressions in
			Sports
			Psychological Attributes in Sports - Self
			Esteem, Mental Imagery, Self Talk, Goal
			Setting Concert of Talant Identification and Talant
OCTOBER			Concept of Talent Identification and Talent Development in Sports.
OCTOBER	10	Training In Sports	Introduction to Sports Training cycle - Micro,
	10	Training in Sports	Meso, Macro Cycle.
			Types and Method to Develop - Strength,
			Endurance, and Speed
			Type and Method to Develop - Flexibility and
			Coordinative Ability.







	Circuit Training - Introduction & its
	importance
NOVEMBER	REVISION
NOVEMBER	PRE-BOARD EXAM
/	
DECEMBER	







PAINTING

MONTH	Units	Topic	Sub Topic (Theory)	Practical		
APRIL	1	Rajput School	Rajasthani School Of Painting: Intro, Main features MaruRagini- Mewar School Chaugan Players- Jodhpur School Krishna On Swing- Bikaner School Radha (BaniThani)- Kishangarh Bharat Meet Rama At Chitrakoot- Jaipur	Miniature painting		
MAY	1	Pahari & Mughal School	Pahari School Of Painting- Intro, Main features Krishna With Gopies- Basohli School Mughal School- Intro, Main Features Krishna Lifting Mount Govardhana- Miskin	Still Life		
JUNE	2	Mughal School	Falcon On A Bird Rest- Ustad Mansoor Kabir & Raidas- Faquirullah Khan Marriage Procession Of Dara Shukoh- Haji Madni The Deccan School- Intro	Copy Painting-1		
			UNIT TEST-I			
JULY	2	Deccan School	Hazrat Nizamuddin Auliya& Amir Khuhusro Chand Bibi Playing Polo National Flag Of India & Symbolic Significance Rivision	Copy Painting-1		
	UNIT TEST-II					
AUGUST	3	Bengal School	Bengal School- Intro, Features Journey's End- Abanindranatha Thakur Shiva & Sati- Nandalal Bose Radhika- Chugtai Meghdoot- Ram Gopal Vijaivargiya Contribution Of Indian Artist,	Nature and Object Study		







Session. 2024 - 23				
			Freedom movement	
			BLOCK TEST-I	
SEPTEMBER	3	Painting	Rama Vanquishing The Pride Of Ocean- Ravi Verma Mother & Child- Jamini Roy Haldi Grinders- Amrita Sher Gill Mother Teresa- Hussain	Painting Composition
OCTOBER	3	Graphics & Sculpture	Children- SomnathHore Devi- Jyoti Bhatt Of Walls- AnupamSud Man, Woman & Tree- LaxmaGoud Triumph Of Labour- D.P Roy Chowdhury	Painting Composition
NOVEMBER	3	Sculpture	Santhal Family- RamkinkarVaij Cries Un- Heard- Amar NathSehgal Ganesh- P.V. Janaki Ram	Portfolio Assessment
PRE-BOARDS-I				
DECEMBER	PRE-BOARDS-II			