



DELHI PUBLIC SCHOOL RUBY PARK, KOLKATA



Class

XII

SYLLABUS



ENGLISH

Session: 2022-23

MONTH	UNIT	READING SKILLS/ASL	WRITING SKILLS	LITERATURE
APRIL	1	Comprehension exercises from Literary Passages	Formal Invitation	My Mother at Sixty-Six (poem)
				The Last Lesson
	2	Case based passages	Replies to Invitation	Lost Spring
3				Report writing
MAY	4	ASL	Article Writing	Deep Water
				The Tiger King
	UT1			
JUNE	5	ASL	Notice Writing	Keeping Quiet (poem)
				The Rattrap
	6	Comprehension from Discursive Passages	Letter to the Editor	Journey to the End of the Earth
7	Indigo			
		JULY		
The Enemy				
UT2				



ENGLISH Session: 2022-23

contd.

MONTH	UNIT	READING SKILLS/ASL	WRITING SKILLS	LITERATURE
AUGUST	8	Inference from Context	Job Application	Going Places
	9	Comprehension from Factual Passages		On the Face of It
				Poets and Pancakes
				The Interview
SEPTEMBER	10	REVISION AND BLOCK TEST		
OCTOBER	11	Comprehension from Analytical Passages	Job Application	Memories of Childhood
NOVEMBER	12	ASL	Letter to the Editor	A Roadside Stand (poem)
				Aunt Jennifer's Tigers (poem)
	REVISION			
DECEMBER	PRE BOARD EXAMINATION			

Pre Board Syllabus as prescribed by CBSE



PHYSICS

Session: 2022-23

MONTH	CHAPTER	TOPICS	SUB TOPICS
APRIL	I	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.
			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)
MAY	IX	RAY OPTICS	Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection 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: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.



PHYSICS Session: 2022-23

contd.

MONTH	CHAPTER	TOPICS	SUB TOPICS
JUNE	II	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. C; 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
UNIT TEST 1			
JUNE AND JULY	III	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 magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.
			Current loop as a magnetic dipole and its magnetic dipole moment. Magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis. Torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only); bar magnet as an equivalent solenoid, magnetic field lines(qualitative treatment only) Para-, dia- and ferro - magnetic substances, with examples. Magnetisation of materials; Effect of temperature on Magnetic Properties



PHYSICS

Session: 2022-23

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MONTH	CHAPTER	TOPICS	SUB TOPICS
UNIT TEST 2			
JULY	IV	Electromagnetic Induction and Alternating Currents	Electromagnetic induction; Faraday's law, induced emf and current; Lenz's Law, 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.
AUGUST	V	Electromagnetic Waves	Basic idea of displacement current, Electromagnetic waves and their characteristics (qualitative ideas only). Transverse nature of electromagnetic waves. Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, x-rays, gamma rays) including elementary facts about their uses.
	X	WAVE OPTICS	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 (No derivation final expression only) and expression. for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum (qualitative treatment only).
BLOCK TEST 1			
SEPTEMBER	XI	Photoelectric Effect Dual nature and matter waves	Dual nature of radiation, 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.



PHYSICS

Session: 2022-23

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MONTH	CHAPTER	TOPICS	SUB TOPICS
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 in this orbit of Hydrogen line spectra (qualitative treatment only), Composition and size of nucleus, nuclear force atomic masses, Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission and fusion.
NOVEMBER	XIV	ELECTRONIC DEVICES	Energy Bands in conductors, Semiconductors and insulators (qualitative treatment only), intrinsic and extrinsic semiconductors, p type and n type, pn junction; semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier;
NOVEMBER	REVISION FOR PREBOARD EXAMINATION		
DECEMBER	PREBOARD EXAMINATION		

Syllabus for Preboard examination - as prescribed by CBSE



CHEMISTRY

Session: 2022-23

MONTH	CHAPTER NO.	CHAPTER	CONTENTS
APRIL	II	Solutions	<ul style="list-style-type: none"> Types of solutions. Expression of concentration of solutions of solids in liquids Solubility of gases 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 Determination of molecular masses using colligative properties Abnormal molecular mass, Vant Hoff factor
MAY	IV	Chemical Kinetics	<ul style="list-style-type: none"> 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)
	UNIT TEST - 1		
JUNE	III	Electrochemistry	<ul style="list-style-type: none"> 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. Conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration. Kohlrausch's Law. Electrolysis and laws of electrolysis (elementary idea) Dry cell – electrolytic cells and galvanic cells. Fuel cells; corrosion.



CHEMISTRY

Session: 2022-23

contd.

MONTH	CHAPTER NO.	CHAPTER	CONTENTS
JULY	X	Haloalkanes and Haloarenes	<ul style="list-style-type: none">• 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	UNIT TEST-2		
JULY	XI	Alcohols, Phenols and Ethers	<ul style="list-style-type: none">• 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.
AUGUST	XII	Aldehydes, Ketones and Carboxylic Acids	<p>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.</p> <ul style="list-style-type: none">• Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses



CHEMISTRY

Session: 2022-23

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MONTH	CHAPTER NO.	CHAPTER	CONTENTS
AUGUST	XIII	Amines	<p>Preparation, physical and chemical properties, uses, identification of primary secondary and tertiary amines.</p> <ul style="list-style-type: none"> • Cyanides and Isocyanides – will be mentioned at relevant places in context. • Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.
SEPTEMBER	REVISION AND BLOCK TEST 1		
OCTOBER	VIII	d -and f -Block Elements	<ul style="list-style-type: none"> • 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. • Preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$. • Lanthanoids - electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and its consequences. • Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids.
OCTOBER	IX	Coordination Compounds	<ul style="list-style-type: none"> • Coordination compounds: Introduction, Werner's theory, ligands, coordination number, colour, magnetic properties and shapes • IUPAC nomenclature of mono nuclear coordination compounds,



CHEMISTRY

Session: 2022-23

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MONTH	CHAPTER NO.	CHAPTER	CONTENTS
NOVEMBER	IX (contd.)	Coordination Compounds contd.	<ul style="list-style-type: none">• isomerism (structural and stereo)• Bonding, VBT, CFT• Importance of coordination compounds (in qualitative analysis, extraction of metals and biological systems).
NOVEMBER	XIV	Biomolecules	<ul style="list-style-type: none">• 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		



MATHEMATICS

Session: 2022-23

MONTH	TOPICS	SUBTOPICS
APRIL	Relation and Functions	Relation, Relation on a set. Types of Relations
		Equivalence Relation, Equivalence Class
		Function, different types of Function, One one and onto function,
		Domain and Range of Inverse Trigonometric Functions and related formulas, graphs of inverse trigonometric functions
MAY-JUNE	Continuity	Continuity
	UT 1	
	Differentiability	Differentiability test, Derivative (Chain Rule), 1st. Order and Higher order
	Application of Derivatives	Rate Measure (Application in Sphere, Cylinder, Cone etc.), Increasing & Decreasing Functions
JULY	Application of Derivatives	Local Minima, Maxima, Absolute Maxima and Minima, Point of Inflexion, Concavity and word problems related to cylinder, cone, etc.
UT2		
	Matrices and Determinants	Matrices (Transpose, Adjoint and Symmetric and Skew symmetric, Inverse), Solve by matrix method (Martin's Rule), Word problem by matrix method. Existence of non-zero matrices whose product is zero matrix (up to order 2)
		Determinants, consistency and inconsistency, no of solutions, Area of triangle
	LPP	Introduction and related terminology, Mathematical Formulation of L.P.P



MATHEMATICS

Session: 2022-23

contd.

MONTH	TOPICS	SUBTOPICS
AUGUST	LPP	Graphical solution (Bounded and Unbounded Region)
	Indefinite integral	Integration Properties, Formulae, solution by substitution, by parts
		Partial fraction, Special integrals
Definite Integral	Fundamental Theorem of Calculus, Different properties of Definite Integrals	
BT 1		
OCTOBER	Probability	Probability (Conditional), Baye's Theorem, Random Variable, Distribution, Mean and Variance
	Area Under Curve	Area under curve (Rough sketch of curve and calculating area by using integration), only straight lines and standard form of conics
OCTOBER - NOVEMBER	Differential Equation	Differential Equations, Order & Degree, and Solution of the differential equation, Method of separation, substitution, homogeneous diff equation, integrating factor and linear diff equation
NOVEMBER	Vectors	Position Vectors, Section formula, direction cosines and direction ratios, dot and cross product related sums, geometrical interpretation
	3D-Geometry	Direction Cosine of Line, Angle between Lines, Condition of parallel and perpendicular Lines, Straight Line, Equation of line passing through two points, Shortest distance between two Skew Lines.
DECEMBER	PREBOARD	



BIOLOGY

Session: 2022-23

MONTH	UNIT	NAME OF THE CHAPTERS
APRIL	Reproduction	Sexual Reproduction in Flowering Plants
MAY		Human Reproduction
		Reproductive Health- Introduction
UNIT TEST I		
JUNE	Reproduction	Reproductive Health - Continued
	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 - Introduction
UNIT TEST II		
AUGUST	Biology in Human Welfare	Microbes in Human Welfare Continued
		Human Health and Diseases - Introduction
SEPTEMBER	Biology in Human Welfare	Human Health and Diseases- Continued
BLOCK TEST I		
OCTOBER	Biotechnology	Biotechnology: Principles and Process
NOVEMBER	Biotechnology	Biotechnology and Its Application
	ECOLOGY	Organisms and Population
		Ecosystems
		Biodiversity and Conservation
NOVEMBER	REVISION FOR PRE BOARD EXAMINATION	
DECEMBER	PRE BOARD EXAMINATION	



COMPUTER SCIENCE

Session: 2022-23

MONTH	TOPIC	SUB-TOPIC
APRIL	Python Revision Tour	Tokens in Python
		Variables and Assignments
		Simple Input and Output
		Data Types
		Mutable and Immutable Types
		Expressions
		Statement Flow Control
	Looping Statements	
	Python Revision Tour- II	Strings in Python
		Lists in Python
Tuples in Python Dictionaries in Python		
Sorting Techniques		
MAY	Working with 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)
UNIT TEST - 1		
JUNE	Using Python Libraries	Creating python libraries
JULY	File Handling	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, 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



COMPUTER SCIENCE

Session: 2022-23

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MONTH	TOPIC	SUB-TOPIC
JULY	File Handling	Binary file: basic operations on a binary file: open using file 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 csv. writerow() and read from a csv file using csv.reader()
UNIT TEST - 2		
	Data Structures: Linear Lists	Stack, operations on stack (push & pop), implementation of stack using list. Introduction to queue, operations on queue (enqueue, dequeue, is empty, peek, is full), implementation of queue using list.
	Database Management	Database concepts: introduction to database concepts and its need Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate key, foreign key)
AUGUST	Database Management	Structured Query Language: introduction, Data Definition Language and Data Manipulation Language, data type (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 product on two tables, equijoin and natural join



COMPUTER SCIENCE Session: 2022-23

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MONTH	TOPIC	SUB-TOPIC
BLOCK TEST - I		
OCTOBER	Interface Python with MySQL	Connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using fetchone(), fetchall(), rowcount, creating database connectivity applications
NOVEMBER	Computer Networks	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, Fibre-optic cable), Wireless media (Radio waves, Microwaves, Infrared waves)
		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, wireless/mobile communication protocol such as GSM, GPRS and WLL
		Mobile telecommunication technologies: 1G, 2G, 3G, 4G and 5G
		Introduction to web services: WWW, Hyper Text Markup Language (HTML), Extensible Markup Language (XML), domain names, URL, website, web browser, web servers, web hosting
DECEMBER	PRE BOARD EXAMINATION	



ECONOMICS

Session: 2022-23

MONTH	UNIT	TOPIC	SUB TOPIC
APRIL	Part A Unit 1	Macroeconomics	What is Macroeconomics? National Income and Related Aggregates: Some basic concepts: consumption goods, capital goods, final goods, intermediate goods, stocks and flows; gross investment and depreciation. Circular flow of income (two sector model). Methods of calculating National Income-Value Added or Product method, Income method, Expenditure method. Aggregates related to National Income: Gross National Product (GNP), Net National Product (NNP), Gross and Net Domestic Product (GDP and NDP) - at market price, at factor cost; Real and Nominal GDP. GDP and Welfare.
MAY	Part B Unit 6	Indian Economy	<ol style="list-style-type: none"> 1. A brief introduction of the state of Indian economy on the eve of independence. 2. Development Experience (1947-90) <ol style="list-style-type: none"> a. Indian economic system and common goals of Five-Year Plans. b. Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy), industry (IPR 1956, Role and importance of SSI.) and foreign trade. 3. Economic Reforms since 1991: Liberalisation, Privatisation and Globalisation: Features and Appraisals. Concepts of GST and Demonetisation.
MAY/JUNE (UNIT TEST 1)			
JUNE	Part A Unit 2	Macroeconomics	<p>Money and Banking</p> <p>Money - meaning and functions, supply of money - Currency held by the public and net demand deposits held by commercial banks. Money creation by the commercial banking system.</p> <p>Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Bank of government, Banker's Bank, Control of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate, Open Market Operations, Margin requirement.</p>
JULY	Part B Unit 7	Indian Economic Development	<p>Current challenges facing Indian Economy:</p> <p>Rural development: Key issues in rural development- Credit and marketing. Role of cooperatives, Agricultural diversification. Alternate farming - organic farming.</p>



ECONOMICS Session: 2022-23

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MONTH	UNIT	TOPIC	SUB TOPIC
JULY	Part B Unit 7	Indian Economic Development	Human Capital Formation in India - Sources, Role of human capital in economic development, Growth of Education sector in India. Employment: Growth and changes in workforce participation rate in formal and informal sectors; problems and policies.
	Part A Unit 4	Macroeconomics	Government budget - Meaning, objectives and components. Classification of receipts - revenue receipts and capital receipts; classification of expenditure - revenue expenditure and capital expenditure. Balanced, Surplus and deficit budget. Measures of government deficit - revenue deficit, fiscal deficit, primary deficit their meaning.
JULY (UNIT TEST 2)			
AUGUST	Part A Unit 3	Macroeconomics	Determination of Income and Employment: 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. Problems of excess demand and deficient demand; Measures to correct them- changes in government spending, taxes and money supply.
SEPTEMBER REVISION AND BLOCK TEST			
OCTOBER	Unit 8	Indian Economic Development	Current challenges facing Indian Economy Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment, including global warming. Development Experience of India: Comparison with Neighbours: India and Pakistan, India and China. Issues: Growth, population, sectoral development and other developmental indicators.
NOVEMBER	Part A Unit 5	Macroeconomics	Balance of Payments Balance of payments account - meaning and components; balance of payments surplus and deficit. Foreign exchange rate - meaning of fixed and flexible rates and managed floating. Determination of exchange rate in a free market. Merits and demerits of flexible and fixed exchange rate. Managed floating exchange rate system.
DECEMBER	PRE BOARD COMMENCES		



ACCOUNTANCY

Session: 2022-23

MONTH	TOPIC	SUB TOPIC
APRIL	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. Over subscription with Forfeiture
		Balance Sheet Representation as per Schedule III of Companies Act 2013 of Shareholders Fund (including prorata)
MAY	Company Accounts	Prorata allotment and balance sheet representation continued
	Financial statement Analysis	Financial Statements of Companies and Theory of Financial Statement Analysis. Statement of Profit and Loss as per schedule III of Companies Act
UT 1		
JUNE	Financial statement	Ratio Analysis
JULY	Financial statement Analysis	Cash Flow Statement
	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
	UT 2	



ACCOUNTANCY

Session: 2022-23

contd.

MONTH	TOPIC	SUB TOPIC
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 new balance sheet
		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 and Adjustment of Capital
SEPTEMBER	REVISION AND BLOCK TEST 1	
	Partnership	Retirement of a Partner along with Partners Loan Account and Balance Sheet
OCTOBER	Partnership	Retirement of a Partner along with Partner's Loan Account and Balance Sheet, Death of a Partner along with Executor's Loan Account
	Partnership	Dissolution of a firm along with Memorandum Balance Sheet and Journal Entries.
		Issue of Debentures - Issued at Par, Premium and Discount,
NOVEMBER	Company Accounts	Issue of Debentures as Collateral Securities and Issue of Debentures for consideration other than cash
	REVISION	
DECEMBER	PRE BOARD	



BUSINESS STUDIES

Session: 2022-23

MONTH	TOPIC	SUB TOPIC
APRIL	Nature and Significance of Management	Characteristics and Objectives Of management, Nature and levels of Management
		Functions and Coordination
	Principles of Management	Fayol's Principal Contd and Taylor's Principles and Technique and Comparison between Taylor and Fayol
	Business Environment	Introduction of Business Environment, Features and Importance
MAY	Business Environment	Dimensions of business environment, Demonetisation - concept and importance
	Marketing Management	Marketing Management - Meaning, Functions and Marketing Philosophies and Marketing Mix Introduction
UT 1		
JUNE	Marketing Management	Marketing mix -Product, Price, Place and Promotion along with Public Relations
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
	Financial Management	Three important decisions - Meaning and Factors effecting the same, Financial Planning - Objectives and Importance Capital Structure concept along with Trading on Equity, Fixed and Working Capital and factors affecting the decisions of Fixed and Working Capital
AUGUST	Consumer Protection	Concept and Importance, Consumer Protection Act 2019, Role of NGO's and Non-Governmental organisations



BUSINESS STUDIES Session: 2022-23

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MONTH	TOPIC	SUB TOPIC
	Planning	Concept and Importance, Limitations, Planning Process and Types of Plans
AUGUST	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
REVISION AND BLOCK TEST I		
SEPTEMBER	Staffing	Concept and Importance, Staffing as a part of HRM, Staffing Process and Sources of Recruitment - Internal and External - Merits and Demerits
OCTOBER	Staffing	Selection Process, Training and Development - Concept, Importance and Methods
NOVEMBER	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.
		REVISION
DECEMBER	PRE BOARD	



INFORMATICS PRACTICES

Session: 2022-23

MONTH	TOPIC	SUB-TOPIC
APRIL	Data Handling using Pandas -I	Introduction to Python libraries- Pandas, Matplotlib. Data structures in Pandas - Series and data frames. Series: Creation of series from ndarray, dictionary, scalar value; mathematical operations; series attributes, head and tail functions; selection, indexing and slicing.
		Data Frames: creation of data frames from dictionary of series, list of dictionaries, text/CSV files, display, iteration. Operations on rows and columns: add add (insert /append), select, delete (drop column and row), rename, Head and Tail functions, indexing using labels
MAY	Data Handling using Pandas -I	Boolean indexing; joining, merging and concatenation of data frames. Importing/Exporting Data between CSV files and Data Frames.
UNIT TEST - 1		
JUNE	Data Handling using Pandas -II	Descriptive Statistics: max, min, count, sum, mean, median, mode.. Data Frame operations: Sorting
JULY	Data Handling using Pandas -II	Data Frame operations: Deleting and Renaming Index, Handling missing values – dropping and filling. Importing/Exporting Data between MySQL database and Pandas.
	Data Visualization	Purpose of plotting, drawing and saving of plots using Matplotlib (line plot, bar graph, histogram). Customizing plots: color, style (dashed, dotted), width; adding label, title, and legend in plots.
UNIT TEST - 2		
AUGUST	Database Query using SQL	Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key. Structured Query Language: Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL: Creating a database, using database, showing tables using MySQL, Data Types: char, varchar, int, float, date Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute).



INFORMATICS PRACTICES

Session: 2022-23

contd.

MONTH	TOPIC	SUB-TOPIC
AUGUST	Database Query using SQL	Data Query Commands: SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause Data Manipulation Commands: INSERT, UPDATE, DELETE.
SEPTEMBER	Database Query using SQL	Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID () /SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM (). Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). Querying and manipulating data using Group by, Having, Order by. Operations on Relations - Union, Intersection, Minus, Cartesian Product, JOIN (Cartesian Join, Equi Join, Natural Join)
BLOCK TEST - I		
OCTOBER	Introduction to Computer Networks	Introduction to networks, Types of network: LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh.
NOVEMBER	Introduction to Computer Networks	Introduction to Internet, URL, WWW and its applications- Web, email, Chat, VoIP. Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.
	Societal Impacts	Digital footprint, net and communication etiquettes, data protection, intellectual property rights (IPR), plagiarism, licensing and copyright, free and open-source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. E-waste: hazards and management. Awareness about health concerns related to the usage of technology.
DECEMBER	PRE BOARD EXAMINATION	



HISTORY

Session: 2022-23

MONTH	UNIT	TOPIC
APRIL/MAY	1	The Story of the First Cities: Harappan Archaeology
	2	Political and Economic History: How Inscriptions tell a story
	3	Social Histories: Using the Mahabharata
JUNE	UT 1	
	4	A History of Buddhism: Sanchi Stupa
	5	Medieval Society through Travelers' Accounts
JULY	6	Religious Histories: The Bhakti and Sufi Tradition
	7	New Architecture: Hampi
	UT 2	
AUGUST	8	Agrarian Relations: The Ain-i-Akbari
	9	Colonialism and Rural Society: Evidence from Official Reports
	BLOCK TEST	
SEPTEMBER AND OCTOBER	10	Representations of 1857
	11	Mahatma Gandhi through Contemporary Eyes
NOVEMBER	12	The Making of the Constitution
	REVISION	
DECEMBER	PRE BOARD	



GEOGRAPHY

Session: 2022-23

MONTH	UNIT	TOPIC	SUB TOPIC	
APRIL	I	Human Geography	Nature and scope	
MAY	II A	People	Population-distribution, density and growth. Population change- Components of population change, Demographic transition.	
UT1				
JUNE	II B	People	Human development - concept; selected indicators, international comparisons	
	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	
	UT2			
	III D	Human Activities	Quaternary Activities-Concept; People Engaged In Quaternary Activities - Case Study From Selected Countries	
AUGUST-SEPTEMBER	IV	Transport And Communication	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. International Trade- Bases and Changing Patterns; Ports As Gateways Of International Trade; Role Of Wto In International Trade	
BLOCK TEST 1				
OCTOBER	V			
REVISION				
DECEMBER	PRE BOARD			

PRE-BOARD SYLLABUS AS PER CBSE SPECIFICATION
THEORY PAPER 70 MARKS + PRACTICAL WORK 30 MARKS



GEOGRAPHY

Session: 2022-23

INDIA PEOPLE AND ECONOMY [PART B]			
MONTH	UNIT	TOPIC	SUB TOPIC
APRIL	VI A	People	Population: distribution, density and growth; composition of population - linguistic, religious; sex, rural-urban and occupational- regional variations in growth of population.
UT 1			
MAY AND JUNE	VII	Human Settlements	Rural settlements - types and distribution. Urban settlements - types, distribution and functional classification.
JULY	VIII A	Resources And Development	Land resources- general land use; agricultural land use; geographical conditions and distribution of major crops (Wheat, Rice, Tea, Coffee, Cotton, Jute, Sugarcane and Rubber); agricultural development and problems
	VIII B	Resources And Development	Water Resources-Availability and Utilization-Irrigation, Domestic, Industrial and Other Uses; Scarcity Of Water And Conservation Methods- Rain Water Harvesting And Watershed Management
UT2			
AUGUST - SEPTEMBER	VIII C	Resources And Development	Mineral and energy resources- distribution of metallic (Iron ore, Copper, Bauxite, Manganese); non-metallic (Mica, Salt) minerals; conventional (Coal, Petroleum, Natural gas and Hydroelectricity) and non-conventional energy sources (solar, wind, biogas) and conservation
	VIII D	Resources and Development	Planning in India- target group area planning (case study); idea of sustainable development (case study)
BT1			



GEOGRAPHY Session: 2022-23

contd.

MONTH	UNIT	TOPIC	SUB TOPIC
OCTOBER	IX	Transport Communication and International Trade	Transport and communication-roads, railways, waterways and airways: oil and gas pipelines; Geographical information and communication net works. International trade- changing pattern of India's foreign trade; sea ports and their hinterland and airports
NOVEMBER	X	Geographical Perspective On Selected Issues and Problems	Environmental pollution; urban-waste disposal. Urbanization, rural- urban migration; problems of slums. Land degradation.
		REVISION	
DECEMBER	PRE BOARD		
PRE-BOARD SYLLABUS AS PER CBSE SPECIFICATION			
THEORY PAPER 70 MARKS + PRACTICAL WORK 30 MARKS			



POLITICAL SCIENCE

Session: 2022-23

MONTH	UNITS	BOOK 1 : CONTEMPORARY WORLD POLITICS	
		TOPIC	SUB -TOPIC
APRIL- MAY	1	The End of Bipolarity	Disintegration of Soviet Union, Unipolar World, Middle East crisis-Afghanistan, Gulf War, Democratic Politics and Democratization- CIS and the 21st Century (Arab Spring)
	2	New Centres of Power	Organisations: European Union, ASEAN, SAARC, BRICS Nations: Russia, China, Israel, India, Japan and South Korea
UNIT TEST 1			
JUNE	3	Contemporary South Asia	Conflicts and efforts for Peace and Democratization in South Asia: Pakistan, Nepal, Bangladesh, Sri Lanka, Maldives
	4	United Nations and its Organizations	Principle Organs Key Agencies: UNESCO, UNICEF, WHO, ILO, Security Council and the Need for its Expansion.
	5	Security in Contemporary World	Security: Meaning and Types; Terrorism
JULY	6	Environment and Natural Resources	Environmental Movements Global Warming and Climate Change Conservation of Natural Resources
	7	Globalisation	Meaning Manifestations Debates
UNIT TEST 2			
AUGUST	1	Challenges of Nation-Building	Nation and nation-building. Sardar Patel and the Integration of States Nehru's Approach to Nation- Building; Legacy of Partition: Challenge of Refugee resettlement, The Kashmir Problem. Political conflicts over language and linguistic organization of state
	2	Planned Development	Changing Nature of India's Economic Development Planning Commission and Five-year Plans National Development Council NITI Aayog.
		India's Foreign	Principles of Foreign Policy;



POLITICAL SCIENCE Session: 2022-23

contd.

MONTH	UNITS	BOOK 1 : CONTEMPORARY WORLD POLITICS	
		TOPIC	SUB -TOPIC
AUGUST	3	Policy	India's Changing Relations with Other Nations: US, Russia, China, Israel. India's Relations with its Neighbours: Pakistan, Bangladesh, Nepal, Bhutan, Sri Lanka and Myanmar. India's Nuclear Programme
SEPTEMBER	4	Parties and the Party Systems in India	One-Party Dominance, Bi-party System Multi-party Coalition System
	5	Democratic Resurgence	Jayaprakash Narayan and Total Revolution, Ram Manohar Lohia and Socialism, Pandit Deendayal Upadhyay and Integral Humanism, National Emergency Democratic Upsurges – Participation of the Adults, Backwards and Youth.
BLOCK TEST 1			
OCTOBER	6	Regional Aspirations	Rise of regional parties. Punjab crisis The Kashmir issue Movements for Autonomy
NOVEMBER	7	Indian Politics: Recent Trends and Developments	Era of Coalitions: National Front, United Front, United Progressive Alliance [UPA] – I & II, National Democratic Alliance [NDA] – I, II, III & IV, Issues of Development and Governance
DECEMBER	PRE-BOARDS		
JANUARY	BOARD PRACTICALS/ REVISION WORK		
FEBRUARY - MARCH	STUDY LEAVE / BOARD EXAMS		



PSYCHOLOGY

Session: 2022-23

MONTH	UNITS/ CHAPTERS	PSYCHOLOGY CLASS 12	
		TOPIC	SUB-TOPIC
APRIL & MAY	4	Psychological Disorders	Concept of Abnormality, and Psychological Disorders Classification of Disorders Characteristics of Disorders Major Psychological Disorders
		Practical - Project CBSE Case Study	Introduction to Case Study, Format of Data Taking Data Collection and Report Writing Guidelines
UNIT TEST 1			
JUNE	1	Variations In Psychological Attributes	Individual Differences in Human Functioning Assessment of Intelligence Theories of Intelligence Special Abilities - Aptitude, Nature and Measurement Creativity, Emotional Intelligence.
		2	Self And Personality
			Practical Testing 1
JULY	3	Meeting Life Challenges	Stress - Nature and Definition Effects of Stress Coping with Stress Promoting Positive Health and Wellbeing. Nature And Scope of Therapy. Types of Therapy
		5	Therapeutic Approaches
			Practical Testing 2
UNIT TEST 2			
	6	Attitude and social cognition	What is attitude, attitude formation and change, prejudice and discrimination
	7	Social influence and group processes	Nature of groups, types of groups, influence of groups on individuals
SEPTEMBER AND OCTOBER		Practical Testing 3	Assessment of self concept
		Practical Testing 4	Assessment of Adjustment Pattern
SEPTEMBER	REVISION AND BLOCK TEST		
NOVEMBER		Practical Testing 5	Measurement of attitude
		Supplementary Study Material by CBSE	
DECEMBER	PRE-BOARDS		



PHYSICAL EDUCATION Session: 2022-23

MONTH	UNIT	TOPIC	SUB TOPIC
APRIL	1	Management of Sporting Event	Function of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling)
			Various Committees & their Responsibilities (Pre, During and Post)
			Fixture and its Procedures- Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)
MAY	2	Children & Women in Sports	Common Postural Deformities - Knock Knee, Bow Legs, Flat Foot, Round Shoulders, Lordosis, Kyphosis and Scoliosis and their corrective measures.
			Special consideration (Menarche & Menstrual Dysfunction)
			Female Athletes Triad (Osteoporosis, Amenorrhoea, Eating Disorders)
UNIT 1			
JUNE	3	Yoga as Preventive measures for Lifestyle Disease	Obesity: Procedure, Benefits & contraindications for Vajrasana, Hastotansana, Trikonasana, Ardh-Matsyendrasana
			Diabetes: Procedure, Benefits & contraindications for Bhujangasana, Paschimottanasana, Pavan Muktasana, Ardh Matsyendrasana, Kapalabhati.
			Asthma: Procedure, Benefits & Contraindication for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottanasana, Matsyasana, Anulom-Vilom.
			Hypertension: Tadasana, Vajrasana, Pavan Muktasana, Ardha Chakrasana, Bhujangasana, Shavasana



PHYSICAL EDUCATION

Session: 2022-23

MONTH	UNIT	TOPIC	SUB TOPIC
JULY	4	Physical Education & Sports for CWSN (Children With Special Needs - Divyang)	Organizations promoting Disability Sports (Special Olympics, Paralympics, Deaflympics)
			Advantage of Physical Activities for children with special needs.
			Strategies to make Physical Activities assessable for children with special needs.
UNIT 2			
JULY	5	Sports & Nutrition	Concept of balance diet and nutrition.
			Macro and Micronutrients; Food sources & functions.
			Nutritive & Non-Nutritive Components of Diet.
AUGUST	6	Test & Measurement In Sports	<p>Fitness Test- SAI Khelo India Fitness Test in school: Age group 5-8 yrs/class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test, Age group 9-18 yrs/class 4-12: BMI, 50mt Speed test, 600 mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified Push-Ups for girls).</p> <p>Computing Basal Metabolic Rate (BMR) Rikli & Jones - Senior Citizen Fitness Test</p> <ol style="list-style-type: none"> 1. Chair Stand Test for lower body strength 2. Arm Curl Test for upper body strength 3. Chair Sit & Reach Test for lower body flexibility 4. Back Scratch Test for upper body flexibility 5. Eight Foot Up & Go Test for agility 6. Six Minute Walk
BLOCK TEST			
SEPTEMBER	7	Physiology & Injuries in Sports	Physiological factor determining component of Physical Fitness
			Effect of exercise on Muscular System
			Effect of exercise on Cardio - Respiratory System



PHYSICAL EDUCATION

Session: 2022-23

contd.

MONTH	UNIT	TOPIC	SUB TOPIC
SEPTEMBER	7	Physiology & Injuries in Sports	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 sports
OCT - NOV DEC	8	Newton's Law of Motion & its Application in Sports Biomechanics & Sports	Equilibrium - Dynamic & Static and Centre of Gravity and its application in sports
			Friction & Sports
			Projectile in Sports.
OCT - NOV DEC	9	Psychology & Sports	Personality; its definition & types (Jung Classification & Big Five Theory)
			Meaning, Concept & Types of Aggressions in Sports
	10	Training In Sports	Psychological Attributes in Sports - Self Esteem, Mental Imagery, Self-Talk, Goal setting
			Concept of Talent Identification and Talent Development in Sports.
OCT - NOV DEC	10	Training In Sports	Introduction to Sports Training cycle - Micro, Meso, Macro Cycle.
			Types and Method to Develop - Strength, Endurance, and Speed
			Type and Method to Develop - Flexibility and Coordinative Ability.
DECEMBER	PREBOARD		



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