



DELHI PUBLIC SCHOOL RUBY PARK, KOLKATA



Class

XI

SYLLABUS



ENGLISH

Session: 2022-23

MONTH	MONTH/ UNIT	READING	WRITING	GRAMMAR	LITERATURE	
JUNE	1	Comprehension from factual and discursive passages	Poster Making	Do as directed	The Portrait of a Lady	
JULY	2		Note making and Summary writing from passage given	Tenses	Agreement of subject and verb	The Summer of the Beautiful White Horse (Snapshots)
				Tenses and usage/gap filling exercise	Determiners/ Change of Voice-	
				Listening	UT1	
Speaking						
JULY	3	Vocabulary	Speech / Debate	Re-ordering of sentences/ Transformation of sentences	We're Not Afraid to Die	
	Identifying words from a passage					
AUGUST	4	Listening / Speaking	Classified Advertisement	Integrated Exercises	Discovering Tut The Laburnum Top (poem)	
	5	Summarizing	Letter writing	Error Correction	The Address	
			Rules of formal letter writing			
			Official / Business Letters			
Conversation Skills	Letter to the Principal	Phrases- Adjective, Adverb, Noun	The Voice of the Rain (Poem)			
	Letter to the Editor					



ENGLISH Session: 2022-23

contd.

MONTH	MONTH/ UNIT	READING	WRITING	GRAMMAR	LITERATURE
SEPTEMBER	REVISION AND BLOCK TEST I				
OCTOBER	6	Subtitling	Report Writing for a magazine	Clauses	Father to Son (Poem)
NOVEMBER	7	Conversation Skills	Poster Article Writing	Exercises on identification of clauses	Childhood (Poem)
		Listening Comprehension	Advertisement		Mother's Day Birth
NOVEMBER & DECEMBER	UT2				
DECEMBER	8	Listening/ Speaking	Writing a CV	Modals Using the correct verb in sentences	The Adventure Silk Road
JANUARY	UT3				
JANUARY	9	Note Making	Speech/ Debate	Editing/cloze passage	The Tale of Melon City (Poem)
		Summarizing			
REVISION					
February	BLOCK TEST II				



PHYSICS

Session: 2022-23

MONTH	CHAPTER	TOPICS	SUB TOPICS
June	1 & II	Physical World, Measurement and units	Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units.; significant figures. Dimensions of physical quantities, dimensional analysis and its applications
		Calculus	Elementary Differential and integral calculus for describing motion
June and July	III	Motion in a Straight line	Frame of reference. Motion in a straight line: Uniform and non-uniform motion, instantaneous velocity. Uniformly accelerated motion, velocity-time, position-time graphs, relations for uniformly accelerated motion (graphical treatment).
	IV	Motion in a Plane	Scalar and vector quantities: Position and displacement vectors, general vectors and notation, equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors. Unit vector; Resolution of a vector in a plane - rectangular components. Scalar and Vector product of vectors Motion in a plane. Cases of uniform velocity and uniform acceleration- projectile motion. Uniform circular motion
July	V	Laws of Motion	Intuitive concept of force. Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications.
			Equilibrium of concurrent forces. Static and kinetic friction, laws of friction, rolling friction. Lubrication
			Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on level circular road, vehicle on banked road).
UT I			
July and August	VI	Work, Energy and Power	Work done by a constant force and a variable force; kinetic energy, work energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: ; non- conservative forces: elastic and inelastic collisions in one and two dimensions.



PHYSICS Session: 2022-23

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MONTH	CHAPTER	TOPICS	SUB TOPICS
August	VII	System of Particles (1)	Centre of mass of a two-particle system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of uniform rod.
August	VII	System of Particles and Rotational Motion (2)	Moment of a force, torque, angular momentum, Law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions; moment of inertia, radius of gyration. Values of moments of inertia for simple geometrical objects (no derivation)
September	Block Test 1		
	VIII	Gravitation	Keplar's laws of planetary motion. The universal law of gravitation.
			Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy; gravitational potential. Escape velocity. Orbital velocity of a satellite.
October	IX	Mechanical Properties of Solid	Elastic behavior, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear, modulus of rigidity. (Qualitative idea only); Poisson's Ratio; Elastic Energy
October	X	Mechanical Properties of Fluid	Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes). Effect of gravity on fluid pressure Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow. Bernoulli's theorem and its applications. Critical Velocity Surface energy and surface tension, angle of contact, application of surface tension ideas to drops, bubbles and capillary rise. Excess of pressure across a curved surface.
November	XI	Thermal Properties of matter	Heat, temperature, thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat -capacity calorimetry; change of state - latent heat. Heat transfer- conduction, convection and radiation, thermal conductivity, Qualitative ideas of blackbody radiation Wien Displacement Law, Stefan's Law



PHYSICS

Session: 2022-23

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MONTH	CHAPTER	TOPICS	SUB TOPICS
UT II			
December	XIII	Kinetic Theory Of Gas	Equation of state of perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equipartition of energy (statement only) and application to specific heats of gases; concept of mean free path, Avogadro's number
December	XII	Thermodynamics	Thermal equilibrium and definition of temperature (zeroth law of thermodynamics). Heat, work and internal energy. First law of thermodynamics. Second law of thermodynamics: reversible and irreversible processes. Gaseous state of matter; change of condition of gaseous state. Isothermal, adiabatic, reversible, irreversible, cyclic processes
UT III			
January	XIV	Oscillations	Periodic motion time period, frequency, displacement as a function of time. Periodic functions and their applications. Simple harmonic motion (S.H.M) and its equation; phase; oscillations of a loaded spring-restoring force and force constant; energy in S.H.M.-kinetic and potential energies; simple pendulum-derivation of expression for its time period.
	XV	Waves	Wave motion. Longitudinal and transverse waves, speed of travelling wave. Displacement relation for a progressive wave. Principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.
Revision			
Block Test 2			



CHEMISTRY

Session: 2022-23

MONTH	UNIT NO.	CHAPTER	CONTENTS
June	1	Some Basic Concepts of Chemistry	<ul style="list-style-type: none">• Importance and scope of Chemistry, nature of matter• laws of chemical combination, Nature of matter, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses• mole concept and molar mass• percentage composition, empirical and molecular formula• chemical reactions, stoichiometry and calculations based on stoichiometry reactions• Concept of oxidation and reduction, redox, oxidation number,• balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number.
July	2	Structure of Atom	<ul style="list-style-type: none">• Discovery of electrons, proton, neutron, atomic number, isotopes, isobars• Thomson model, limitation, Rutherford model, limitation• Bohr's model and its limitations.• concept of shells and subshells• dual nature of matter and light, de Broglie's relationship• Heisenberg uncertainty principle• concept of orbitals, quantum numbers, shapes of s, p and d orbitals• rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule• electronic configuration of atoms, stability of half- filled and completely filled orbitals.
July	UT - 1		
July	3	Classification of Elements and Periodicity in Properties	<ul style="list-style-type: none">• Significance of classification, brief history of development of periodic table.• Modern periodic law and the present form of periodic table• Periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency• Nomenclature of elements with atomic number greater than 100
	4	Chemical Bonding and Molecular structure	<ul style="list-style-type: none">• Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure• polar character of covalent bond, covalent character of ionic bond• valence bond theory, resonance• geometry of covalent molecules, VSEPR theory• concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules• molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), hydrogen bond.



CHEMISTRY

Session: 2022-23

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MONTH	UNIT NO.	CHAPTER	CONTENTS
August	5	Chemical Thermodynamics	<ul style="list-style-type: none"> • Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. • First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH. • Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. • Second law of Thermodynamics (brief introduction). Introduction of entropy as a state function, Gibb's energy change for spontaneous and non- spontaneous processes, criteria for equilibrium. • Third law of thermodynamics (brief introduction).
September	Revision and BT-1		
October		Equilibrium	<ul style="list-style-type: none"> • Equilibrium in physical and chemical processes, dynamic nature of equilibrium • law of mass action, equilibrium constant • factors affecting equilibrium - Le Chatelier's principle
November	6	Equilibrium contd.	<ul style="list-style-type: none"> • Ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH • Henderson Equation, hydrolysis of salts (elementary idea), buffer solution, solubility product, commonion effect (with illustrative examples).
	7	Organic Chemistry - Some Basic Principles and Techniques.	Classification and IUPAC nomenclature of organic compounds. Isomerism.
December	UT - 2		
December	7	Organic Chemistry - Some Basic Principles and Techniques. (continued)	<ul style="list-style-type: none"> • Electronic displacements in a covalent bond: inductive effect, electrometric effect, resonance and hyper conjugation. • Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.



CHEMISTRY

Session: 2022-23

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MONTH	UNIT NO.	CHAPTER	CONTENTS
January	8	Hydrocarbons	<ul style="list-style-type: none">Alkanes - Nomenclature, isomerism, conformation (ethane only),physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis.Alkenes - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparationchemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markownikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition.Alkynes - Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water.Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity,chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation,
	9	Redox Reactions	Concept of Oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, applications of redox reactions.
February	Revision & Block Test -2		



BIOLOGY

Session: 2022-23

MONTH	UNIT	TOPIC
JUNE	Cell: Structure and Functions	Introduction to Class 11 (Bridge Course)
		Cell: The Unit of Life
	Diversity in the Living World	Living World
JULY	Diversity in the Living World	Biological Classification
		Plant Kingdom
		Animal Kingdom
	Cell: Structure and Functions	Cell Cycle and Cell Division
UNIT TEST- I		
AUGUST	Cell: Structure and Functions	Biomolecules
	Structural Organisation in Plants and Animals	Morphology of Flowering Plants
		Anatomy of Flowering Plants
SEPTEMBER	Structural Organisation in Plants and Animals	Structural Organisation of Animals
BLOCK TEST- I		
OCTOBER	Plant Physiology	Photosynthesis in Higher Plants
		Respiration in Higher Plants- Introduction
NOVEMBER	Plant Physiology	Respiration in Higher Plants- Continued
		Plant Growth and Development
	Human Physiology	Breathing and Exchange of Gases
DECEMBER	Human Physiology	Body Fluids and Circulation
		Excretory Products and Their Elimination
UNIT TEST- II		



BIOLOGY Session: 2022-23

MONTH	UNIT	TOPIC
DECEMBER	Human Physiology	Locomotion and Movement (Introduction)
JANUARY	Human Physiology	Locomotion and Movement (To Be Continued)
		Neural Control and Co-Ordination
UNIT TEST- III		
JANUARY	Human Physiology	Chemical Co-ordination and Integration
		Revision
FEBRUARY	BLOCK TEST- II	

SYLLABUS FOR BLOCK TEST- II AS PRESCRIBED BY CBSE



MATHEMATICS

Session: 2022-23

MONTH	TOPICS	SUB-TOPICS
June-July	Bridge course (Logarithm, Theory of Quadratic Equations) Sets, Relations and Functions	Bridge course (Logarithm, Theory of Quadratic equations)
		Sets, Types of Sets, Subsets, Power Sets, Venn Diagram, Union, Intersection and Difference of Sets, Algebra of Sets
		Cartesian Product, Relations, Domain and Range
		Functions, Types of different functions with graphs, Domain, Co-Domain and Range of functions
July-August	Trigonometry	Measurement of Angles, Conversion between Degrees and Radians, Definition of Trigonometric Functions with the help of unit circle, Trigonometric Identities, Domain and Range of Trigonometric Functions
		Compound Angles and Associated Angles
UT 1		
July-August	Trigonometry	Transformation of Sum and Product Multiple and Sub-Multiple Angles, Associated Trigonometric Graphs.
August	Complex Numbers and Quadratic Equations (complex)	Properties, Geometrical presentation, Modulus, Argument, Solutions of Quadratic Equations
	Linear Inequalities	Linear Inequalities and graph (Algebraic solutions of linear inequalities in one variable and representation on number line)
August and September	Sequence and Series	Introduction, AP, GP, nth Term, Sum of n Terms, AM, GM, Infinite GP and related sums
	Equation of the Straight Line	Distance and Section Formula, Area of Triangle, Collinearity
		Equation of Lines and Different Forms
		Angle Between Lines, Parallel, perpendicular lines, distance between a point and a line
BT 1		



MATHEMATICS Session: 2022-23

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MONTH	TOPICS	SUB-TOPICS
October November	Permutation and Combination	Counting Theory, Difference of Permutation and Combination -Related Sums
	Binomial Theorem	Binomial Theorem (proof) only for positive integral indices, nth term, Middle term, Pascal's Triangle
	Conic Sections (Circle, Parabola)	Conics as a Section of Cone, Equation of Circle (Standard form only), Related formulae and sums
		Equation of Parabola (Standard form only), Related formulae and sums
UT 2		
December	Ellipse, Hyperbola, 3-D Geometry, Probability	Equation of Ellipse (Standard form only), Related formula and sums
		Equation of Hyperbola (Standard form only), Related formula and sums
		3D- Geometry (Distance Formula)
		Probability
UT - 3		
January	Statistics	Statistics (Mean, Median, Standard Deviation, Variance and Mean Deviation)
	Limits, Differentiation	Idea of Limits, Formulae and Properties of Limits
		Differentiation- 1st. Principle and Properties,
		Differentiation using formulae.
REVISION		
February	ANNUAL EXAMINATION	



COMPUTER SCIENCE

Session: 2022-23

MONTH	TOPIC	SUB-TOPIC
June	Introduction to Problem Solving	Steps for problem solving (analysing the problem, developing an algorithm, coding, testing and debugging). representation of algorithms using flow chart and pseudo code, decomposition
	Computer System Overview	Basic Computer Organisation: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB)
		Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software
		Operating system (OS): functions of operating system, OS user interface. Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32)
June / July	Data Representation	Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems.
	Boolean Logic	Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth table, De Morgan's laws and logic circuits
UNIT TEST – I		
July	Getting Started with Python	Introduction to Python, features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens (keyword, identifier, literal, operator, punctuator), variables, concept of l-value and R-value, use of comments
	Python Fundamentals	Knowledge of data types: number (integer, floating point, complex), Boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types
	Data Handling	arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in) Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output.
August	Conditional And Iterative Statements	Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control



COMPUTER SCIENCE

Session: 2022-23

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MONTH	TOPIC	SUB-TOPIC
August	Conditional And Iterative Statements	Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e. g.: absolute value, sort 3 numbers and divisibility of a number
		Iterative statements: for loop, range function, while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number etc
	String Manipulation	introduction, indexing, string operations (concatenation, repetition, membership & slicing), traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(), rstrip(), strip(), replace(), join(), partition(), split()
September	BLOCK TEST I	
October	Debugging Pro - grams	Errors: syntax errors, logical errors, runtime errors
	List Manipulation	introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list
November	Tuples	introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple, suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple
UNIT TEST - II		
December	Dictionaries	introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del(), clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them



COMPUTER SCIENCE

Session: 2022-23

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MONTH	TOPIC	SUB-TOPIC
December	Introduction to Python modules	Importing module using 'import <module>' and using from statement, importing math module (pi, e, sqrt, ceil, floor, pow, fabs, sin, cos, tan); random module (random, randint, randrange), statistics module (mean, median, mode)
UNIT TEST – III		
January	Cyber Safety	Digital Footprints
		Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes
		Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open-source software and licensing (Creative Commons, GPL and Apache)
		Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime
		Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying.
		Safely accessing web sites: malware, viruses, trojans, adware
		E-waste management: proper disposal of used electronic gadgets
		Indian Information Technology Act (IT Act)
Technology & Society: Gender and disability issues while teaching and using computers		
REVISION		
BLOCK TEST – II		



ECONOMICS Session: 2022-23

MONTH	UNIT	TOPIC	SUB TOPIC
MAY	Part B Unit 4	Microeconomics: Introduction	Meaning of microeconomics and macroeconomics; positive and normative economics What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost.
	Part A Unit 1	Statistics: Introduction	What is Economics? Meaning, scope, functions and importance of statistics in Economics.
JUNE	Part B Unit 5	Microeconomics: Consumer's Equilibrium and Demand	Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis. Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium. Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve. Price elasticity of demand - Factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage change method and total expenditure method.
	Part A Unit 2	Statistics: Collection, Organisation and Presentation of data	Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation. Organisation of Data: Meaning and types of variables; Frequency Distribution.
UNIT TEST 1 COMMENCES			
JULY	Part A Unit 2	Statistics: Collection, Organisation and Presentation of data	Presentation of Data: Tabular Presentation and Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and ogive) and (iii) Arithmetic line graphs (time series graph).
	Part A Unit 3	Statistics: Tools and Interpretation	Arithmetic mean, median and mode.



ECONOMICS

Session: 2022-23

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MONTH	UNIT	TOPIC	SUB TOPIC
JULY	Part B Unit 6	Microeconomics: Producer behaviour and supply	Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product, Returns to a Factor: Law of variable proportion.
AUGUST	B Unit 6	Microeconomics: Producer behaviour and supply	Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost- meaning and their relationships. Revenue - total, average and marginal revenue - meaning and their relationship.
SEPTEMBER: REVISION AND BLOCK TEST			
OCTOBER	Part A Unit 3	Statistics: Tools and Interpretation	Correlation: meaning and properties, scatter diagram, Measures of correlation – Karl Pearson's method (Two variables ungrouped method), Spearman's Rank correlation.
NOVEMBER	Part A Unit 6	Microeconomics: Producer behaviour and supply	Producer's equilibrium-meaning and its conditions in terms of marginal revenue- marginal cost. Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, Price elasticity of supply; measurement of price elasticity of supply – percentage change method.
UNIT TEST 2 COMMENCES			
	Part A Unit 7	Forms of Market and Price determination	Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply. Simple Applications of Demand and Supply: Price ceiling, price floor
JANUARY	Part A Unit 3	Statistics: Tools and Interpretation.	Introduction to Index Numbers: meaning, types, Wholesale price index, consumer price index and index of industrial production, uses of index numbers, inflation and index number. REVISION
UNIT TEST 3 COMMENCES			
FEBRUARY BLOCK TEST 2 COMMENCES			



ACCOUNTANCY Session: 2022-23

MONTH	TOPIC	SUB TOPIC
JUNE	Introduction to Accounting	Transactions-meaning features, types. Objective of accounting, accounting concepts and accounting principles, GST (excluding setting off GST)
JULY	Theory Base of Accounting	Accounting Terminology
	Accounting Process	Accounting Equation
	Double Entry System	Golden Rule, Debit & Credit, Classification of Journal (incl. GST)
UT I		
JULY	Double Entry System	Journalising (contd.), ledger posting and balancing of accounts
		Cash Book (single, double column) and Petty Cash Book
AUGUST	Subsidiary Books and Trial Balance (including theory)	Purchase and Sales Day Book; Purchase return and sales return Day Book (excluding B/R and B/P day book) and Ledger posting
		Trial Balance
	Trial Balance and Rectification of Errors (including theory)	Trial Balance with corrections and Rectification of Errors
	Bank Reconciliation Statement (including theory)	Bank Reconciliation Statement (excluding amended cash book)
Block Test 1		
SEPTEMBER	Rectification of Errors	Rectification of errors detected before and after preparation of trial Balance and preparation of suspense account
		rectification continued
OCTOBER	Depreciation (including theory)	Depreciation - Method, reason for Charging depreciation. Straight Line Method only
NOVEMBER	Depreciation	Depreciation - Written down value method, provision for depreciation and Asset Disposal A/c.
	Provision and Reserves (Theory)	Meaning and types of reserves and provisions



ACCOUNTANCY

Session: 2022-23

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MONTH	TOPIC	SUB TOPIC
DECEMBER	UT II	
	Final Accounts (including theory)	Final accounts - Without adjustment
	Provision and Reserves (sums)	accounting treatment of reserves and provisions and representation in financial statements
	Final Accounts	Final accounts - With adjustment
JANUARY	UT III	
	Final Accounts	Final accounts - With adjustment
	Revision	
FEBRUARY	Block Test 2	



BUSINESS STUDIES Session: 2022-23

MONTH	TOPIC	SUB TOPIC
June	Evolution and Fundamentals of Business	History of commerce in India, Concept and Characteristics
		Differentiation between Business, Profession and Employment, Objectives of Business (Economic and Social), Role of Profit
		Classification of Business Activity (Industry and Commerce), Business Risk - Meaning, nature and causes and written work.
	Forms of Business Organisation	Sole Proprietorship and Joint Hindu Family Business
July	Forms of Business Organisation	Partnership: Features, Types, Merits, Demerits and Types of partners, minor as a partner, LLP, Cooperative Societies - Features, Types, Merits and Demerits
		Joint Stock Companies - Features, Merits and demerits, Formation of a company procedure and documents (including OPC)
		Starting a Business - basic Factors
UTI		
July	Public, Private and Global Enterprise	Differentiation between Public Sector and Private Sector, Forms of Public Sector - Feature, Merits and Demerits, Changing role of Public Sector, Features of - Global Enterprises, Joint Venture, PPP.
August	Business Services	Banking - Types of bank account, banking services, RTGS, NEFT, core banking
		Insurance - Principles, Life Insurance, Health Insurance, Fire Insurance and Marine Insurance - Meaning and Differentiation. Postal and telecom services.
	Emerging Modes of Business	E- Business - Scope, Benefit, Resources required to implement, online transactions, Payment mechanism and Security and safety of business transaction, Outsourcing BPO and KPO
	Social Responsibility and Business Ethics	Meaning, Definition and Need for Social Responsibility, Arguments For and Against Social Responsibility, Responsibility towards different interest groups
September	BLOCK TEST 1	



BUSINESS STUDIES

Session: 2022-23

contd.

MONTH	TOPIC	SUB TOPIC
October	Sources of Business Finance	Meaning and need for Business Finance, Sources of business finance ownership basis, Retained Earnings, Issue of equity shares, Preference shares
		ADR, GDR, IDR, Borrowed Fund - Debenture and Bonds, Loans from Commercial Banks and Financial Institutions, Public Deposit, Trade Credit and ICD.
November	Small Business	Entrepreneurship Development concept characteristics and need, Definition of Small Scale Enterprise, Role of Small Business in India with special Reference to Rural Areas.
		Government Scheme and Agencies - NSIC and DIC with special reference to Rural, Backward and Hilly Area and written work.
December	UT II	
	Internal Trade	GST concept and key features, Services of a wholeseller, Services of Retailers, Types of Retail Trade - Itinerant retailers.
		Small Scale Fixed Shops, Large Scale Retailer - Departmental Stores
		Chain Stores and Mail Order Houses
		GST -Concept and Key features
January	International Trade	Meaning, Characteristics of International Trade, Difference between Internal and International Trade, Advantages and Disadvantages of International Trade.
		Export Procedure with all documents and Import Procedure with all documents. WTO and its functions.
	REVISION	
February	BLOCK TEST 2	



INFORMATICS PRACTICES

Session: 2022-23

MONTH	TOPIC	SUB-TOPIC
June	Introduction to Computer System	Introduction to computers and computing: evolution of computing devices, components of a computer system and their interconnections, Input/Output devices. Computer Memory: Units of memory, types of memory - primary and secondary, data deletion, its recovery and related security concerns. Software: purpose and types - system and application software, generic and specific purpose software.
	Introduction to Python	Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation of expressions, comments
July	Introduction to Python	Input and Output statements, data type conversion, debugging, control statements: if-else
UNIT TEST - I		
July	Introduction to Python	Input and Output statements, data type conversion, debugging, control statements: for loop
August	Introduction to Python	Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions.: len(), list(), append(), extend(), insert(), count(), find(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum()
September	BLOCK TEST I	
October	Introduction to Python	Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()



INFORMATICS PRACTICES

Session: 2022-23

contd.

MONTH	TOPIC	SUB-TOPIC
November	Database concepts and the Structured Query Language	Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key. Structured Query Language: Data Definition Language, Data Query Language and Data Manipulation Language, 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).
Unit Test – II		
December	Database concepts and the Structured Query Language	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.
UNIT TEST – III		
January	Introduction to the Emerging Trends	Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.
Revision		
BLOCK TEST – II		



HISTORY Session: 2022-23

MONTH	UNIT	TOPIC
June	1	Writing and City Life
July	2	An Empire across Three Continents
UT 1		
August	3	Nomadic Empires
BLOCK TEST 1		
September & October	4	The three Orders
November	5	Changing Cultural Traditions
December	UT 2	
January	6	Displacing Indigenous people
UT 3		
	7	Paths to Modernisation
REVISION		
February	BLOCK TEST II	



GEOGRAPHY

Session: 2022-23

FUNDAMENTALS OF PHYSICAL GEOGRAPHY [PART A]			
MONTH	UNIT	TOPIC	SUB TOPIC
April	I	Geography As a Discipline	Geography as an integrating discipline, as a science of spatial attributes. Branches of Geography: Physical Geography and Human Geography.
	II	The Earth	Origin and evolution of the earth; Interior of the earth.: Earthquakes and volcanoes: causes, types and effects. Distribution of oceans and continents: Wegener's continental drift theory and plate tectonics.
May - June	III	Landforms	Geomorphic processes: weathering; mass wasting; erosion and deposition; soil- formation. Landforms and their evolution - Brief erosional and depositional features
July	UT1		
August	IV	Climate	Atmosphere- composition and structure; elements of weather and climate. Insolation- angle of incidence and distribution; heat budget of the earth-heating and cooling of atmosphere (conduc- tion, convection, terrestrial radiation and advection); temperature - factors controlling tempera- ture; distribution of temperature- horizontal and vertical; inversion of temperature. Pressure-pres- sure belts; winds-planetary, seasonal and local; air masses and fronts; tropical and extratropical cyclones. Precipitation- evaporation; condensa- tion-dew, frost, fog, mist and cloud; rainfall- types and world distribution. Climate and Global Concerns
BLOCK TEST 1			
September	V	Water (Oceans)	Basics of Oceanography
October - November			Oceans - distribution of temperature and salinity. Movements of ocean water-waves, tides and currents;
UT2			
December	V	Water (Oceans)	submarine relief. Ocean resources and pollution
UT3			
January	VI	Life On Earth	Biosphere - importance of plants and other organ- isms; biodiversity and conservation.
	Revision		
February	BLOCK TEST 2		

Block Test 2 Syllabus as Per CBSE Specification
Theory Paper 70 marks + Practical Work 30 marks



GEOGRAPHY

Session: 2022-23

contd.

MONTH	UNIT	TOPIC	SUB TOPIC
April	VII	Introduction	Location, space relations, India's place in the world
May And June	VIII A	Physiography	Structure And Relief; Physiographic Divisions
July	UT 1		
	VIII B	Physiography	Drainage systems: Concept of river basins, watershed; the Himalayan and the Peninsular rivers
July And August	IX A	Climate	Weather And Climate - Spatial And Temporal Distribution Of Temperature. Indian Monsoon: Mechanism, Onset And Withdrawal,
BLOCK TEST 1			
September October November	IX B	Natural Vegetation	Natural vegetation-forest types and distribution; wild life; conservation; biosphere reserves
UT 2			
December	X	Natural Hazards	Floods, Cloudbursts . Droughts: types and impact.
January	UT 3		
	X	Natural Hazards	Earthquakes and Tsunami. Cyclones: features and impact. Landslides
REVISION			
February	BLOCK TEST 2		

Block Test 2 Syllabus as Per CBSE Specification
Theory Paper 70 Marks + Practical Work 30 Marks



POLITICAL SCIENCE

Session: 2022-23

MONTH	UNITS/ CHAPTERS	INDIAN CONSTITUTION AT WORK	
		TOPIC	SUB-TOPIC
May- June	1	Constitution	Why and How. Making of the Indian constitution Fundamental Rights Fundamental Duties; Directive Principles of State Policy Relationship between Fundamental Rights and Directive Principles Constitutional Amendments
	2	Elections and Representation	Elections and Democracy Election System in India Electoral Reforms
July	3	The Legislature	The Necessity of a Parliament Unicameral/ Bicameral Legislature Functions and Power of the Parliament Parliamentary Committees Parliamentary Officials: Speaker, Deputy Speaker, Parliamentary Secretary.
UNIT TEST 1			
July	4	The Executive	Parliamentary Executive in India: What is an Executive; Different Types of Executive Powers and Position of the President, Prime Minister and the Council of Ministers Permanent Executive - The Bureaucracy
	5	The Judiciary	Necessity of an Independent Judiciary Structure of the Judiciary Judicial Activism Judicial Review Judicial Over-reach
August	6	Federalism-	Meaning of Federalism Evolution & Growth of Indian Federalism: Quasi Federalism, Cooperative Federalism, Competitive Federalism
	7	Local Governments	Necessity of Local Governments; Growth of Local Governments in India; 73rd and 74th Amendments. Working and Challenges of Local Governments
REVISION WORK			
BLOCK TEST 1			



POLITICAL SCIENCE Session: 2022-23

contd.

MONTH	UNITS/ CHAPTERS	INDIAN CONSTITUTION AT WORK	
		TOPIC	SUB-TOPIC
POLITICAL THEORY			
September- October	8	Political Theory: An Introduction	What is Politics? Politics vs Political Theory Importance of Political Theory
	9	Liberty	Liberty vs Freedom, Negative and Positive Liberty
November	10	Equality	What is Equality? Significance of Equality Various Dimensions of Equality How can we promote Equality?
	11	Justice	What is Justice? Different Dimensions of Justice Distributive Justice
	12	Rights	What are Rights? History of Rights Kinds of Rights Legal Rights and the State; Human Rights.
UNIT TEST 2			
December	13	Citizenship	Meaning; Citizen and Citizenship; Citizen and Nation. Global Citizenship
	14	Nationalism	Nation and Nationalism; Variants of Nationalism; Pluralism Multiculturalism
January	15	Secularism	Meaning; What is a Secular State? Western Model of Secularism Indian Model Salient Features of Indian Secularism
	REVISION		
UNIT TEST 3			
February	BLOCK TEST 2		



PSYCHOLOGY

Session: 2022-23

MONTH	UNITS CHAPTERS	TOPIC	SUB-TOPIC
April-May	1	What is Psychology?	Introduction understanding and evolution
			Branch's themes, psychology in India, Psychology at work.
	2	Methods of enquiry	Goals and nature of enquiry.
			Some important methods
		Analysis of data, ethical issues	
		Practical 1	Report on any one method of enquiry
June		Practical 2	Finding the capacity of memorization of your subject using auditory and visual presentation.
	4	Human Development	Development growth and maturation
			Overview of developmental stages
		Infancy, childhood, adulthood etc.	
July	5	Sensory attentional perceptual processes	Sense modalities, adaptation, and attentional process.
			Perception Concept and definition
			Principles of perception and after images
			Perception of space depth and distance.
			Perceptual constancies- Illusions, socio-cultural influences in perception
UNIT TEST 1			
August	6	Learning	Nature of learning
			Classical and operant conditioning
			Concept and skill learning
			Learning styles and learning disorders
			Application of learning Principles
		Practical 3	To demonstrate the effects of RI on the memorization capacity of your subject
September	Revision Work		
BLOCK TEST 1			



PSYCHOLOGY Session: 2022-23

contd.

MONTH	UNITS CHAPTERS	TOPIC	SUB-TOPIC
October	7	Human Memory	Nature of memory, Information Processing approach of memory.
			Knowledge representation and processes.
			Nature and causes of forgetting
			Enhancing Memory
November	8	Thinking	Nature of Thinking
			Thoughts and languages
			Reasoning, problem solving, decision making
			Nature and process of creative thinking
			Developing creativity
UNIT TEST 2			
December	9	Motivation and Emotion	Nature of motivation
			Motives- Biological and psychosocial
			Maslow's Hierarchy of needs
			Emotion-concepts and definitions
			Emotional expressions
			Theories of emotions
			Managing Negative emotion
January		Practical 4 -Project	Creativity in everyday life
		REVISION	
UNIT TEST 3			
February	BLOCK TEST 2		



PHYSICAL EDUCATION

Session: 2022-23

MONTH	UNIT	TOPIC	SUB TOPIC
MAY	1	Changing Trends & Career In Physical Education	Concept, Aims & objectives in Physical education
			Changing trends in Sports- playing surface, wearable gears and sports equipment, technological advancements
			Career options in Physical education
			Khelo India program & Fit-India Program
JUNE	2	Olympism	Ancient and Modern Olympics
			Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)
			Olympics - Symbols, Motto, Flag, Oath, and Anthem
			Olympic Movement Structure - IOC, NOC, IFS, Other members
REVISION & UNIT TEST- 1			
JUNE	3	Yoga	Meaning & Importance of Yoga
			Introduction to Ashtanga Yoga
			Introduction to Yogic Kriyas (Shat Karma)
JULY	4	Physical Education & Sports for CWSN (Children With Special Needs- Divyang)	Concept of Disability and Disorder
			Types of Disability, its causes & nature (Intellectual disability, Physical disability)
			Aim & Objective of Adaptive Physical Education
			Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator)
AUGUST & SEPTEMBER	5	Physical fitness, Health and Wellness	Meaning and Importance of Wellness, Health and Physical Fitness
			Components/Dimensions of Wellness, Health and Physical Fitness
			Traditional Sports & Regional Games for promoting wellness



PHYSICAL EDUCATION

Session: 2022-23

contd.

MONTH	UNIT	TOPIC	SUB TOPIC
AUGUST & SEPTEMBER	REVISION AND BLOCK TEST -1		
OCTOBER	6	Test, Measurement & Evaluation	Concept of Test, Measurement & Evaluation in Physical Education & Sports Classification of Test in Physical Education and Sports Test administration guidelines in Physical education and sports
NOVEMBER	7	Fundamentals Of Anatomy, Physiology in Sports	Definition and Importance of Anatomy and Physiology in exercise and sports
			Functions of Skeletal system, classification of bone and types of joints
			Function and Structure of Circulatory system and heart
			Function and Structure of Respiratory system
REVISION & UNIT TEST- 2			
DECEMBER	8	Fundamentals Of Kinesiology & Biomechanics in Sports	Definition and Importance of Kinesiology and Biomechanics in Sports
			Principles of Biomechanics
			Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation
			Axis and Planes – Concept and its application in body movements
JANUARY	9	Psychology & Sports	Definition & Importance of Psychology in Phy. Edu. & Sports
			Adolescent Problems & Their Management
			Team Cohesion and Sports
REVISION & UNIT TEST- 3			
FEBRUARY	10	Training & Doping In Sports	Concept and Principles of Sports Training
			Training Load: Overload, Adaptation, and Recovery
			Concept of Doping and its disadvantages
REVISION & BLOCK TEST 2			



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