



— In collaboration with —
Mayo College, Ajmer 1875 AD



GRADE XII SYLLABUS Session 2023-24

Books: Vistas (V), Flamingo (F)

ENGLISH

APRIL

Reading Skills: Comprehension

Literature:

Chapter 1: The Last Lesson(F)

Chapter 2: Lost Spring(F)

Poem1: My Mother at Sixty Six(F)

MAY & JUNE

Writing Skills: Notice Writing ,Letter to Editor

Literature:

Chapter 3: Deep Water(F)

Poem3: Keeping Quiet(F)

Chapter 1: The Third Level(V)

JULY

Writing Skills: Formal and Informal Invitation
and Replies

Literature:

Chapter 2: The Tiger King (V)

Chapter 4: The Rattrap(F)

Chapter 5: Indigo(F)

AUGUST

Writing Skills: Application for a job with Bio data /Resume, Article writing.

Literature:

Chapter 6: Poets and Pancakes(F)

Chapter 4: The Enemy(V)

Poem 4: A Thing of Beauty(F)

SEPTEMBER

REVISION

OCTOBER

- Writing:** Report writing
Literature:
Chapter 3: Journey to the end of the Earth(V)
Chapter 6: On the Face of It(V)
Chapter 7: Interview(F)
Poem 5: A Roadside Stand(F)

NOVEMBER

- Literature:**
Chapter 8: Going Places(F)
Chapter 8: Memories of Childhood
(i) The Cutting of My Long Hair
(ii) We Too are Human Beings
Poem 6: Aunt Jennifer's Tigers (F)

DECEMBER

Revision of entire syllabus covered
Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

MATHEMATICS

APRIL

Chapter 3: Matrices

Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. On commutativity 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).

Chapter 4: Determinants

Determinant of a square matrix (up to 3×3 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.

Chapter 1: RELATIONS AND FUNCTIONS

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions, Binary Operations

MAY & JUNE

Chapter 1: RELATIONS AND FUNCTIONS(contd)

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions, Binary Operations

Chapter 2: Inverse Trigonometric Functions

Definition, range, domain, principal value branch.

Chapter 5: Continuity and Differentiability

Continuity and differentiability, chain rule, derivative of inverse trigonometric functions, derivative of implicit 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.

JULY

Chapter 5: Continuity and Differentiability (Cont.)

Continuity and differentiability, chain rule, derivative of inverse trigonometric functions, derivative of implicit 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.

Chapter 6: Applications of Derivatives

Applications of derivatives: rate of change of bodies, increasing/decreasing functions, maxima and minima (first 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 real-life situations).

AUGUST

Chapter 7: Integrations

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.

$$\int \frac{dx}{x^2 \pm a^2}, \int \frac{dx}{\sqrt{x^2 \pm a^2}}, \int \frac{dx}{\sqrt{a^2 - x^2}}, \int \frac{dx}{ax^2 + bx + c}, \int \frac{dx}{\sqrt{ax^2 + bx + c}}, \int \frac{px + q}{ax^2 + bx + c} dx, \int \frac{px + q}{\sqrt{ax^2 + bx + c}} dx$$
$$\int \sqrt{a^2 \pm x^2} dx, \int \sqrt{x^2 - a^2} dx, \int \sqrt{ax^2 + bx + c} dx$$

Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals.

SEPTEMBER

Revisions (for half yearly examination).

OCTOBER

Chapter 8: Applications of integrations

Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only), Chapter 10: Vectors

Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors

NOVEMBER

Chapter 11: Three Dimensional Geometry

Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Angle between two lines,

Chapter 12: Linear Programming

Introduction, related terminology such as constraints, objective function, optimization, 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).

Chapter 13: Probability

Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution, mean variable. Binomial probability distribution.

DECEMBER

Revision of entire syllabus covered
Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

BIOLOGY

APRIL

Unit-VI : Reproduction

Chapter-2: Sexual Reproduction in Flowering Plants

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; outbreeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

MAY & JUNE

Chapter-3: Human Reproduction

Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis-spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

Chapter-4: Reproductive Health

Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods; contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary ideas for general awareness).

Unit-VII Genetics and Evolution

Chapter-5: Principles of Inheritance and Variation

Heredity and variation, Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; linkage and crossing over; Sex determination - in human being, birds, grasshopper and honey bee; Mutation, Pedigree analysis, sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans –sickle cell anaemia, Phenylketonuria, thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

JULY

Chapter-6: Molecular Basis of Inheritance

Structure of DNA and RNA; DNA packaging; Search for genetic material and DNA as genetic material; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Human genome project; DNA fingerprinting.

AUGUST

Chapter-7: Evolution

Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); adaptive radiation; Biological evolution: Lamarck's theory of use and disuse of organs, Darwin's theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; brief account of evolution; human evolution.

Unit-VIII Biology and Human Welfare

Chapter-8: Human Health and Diseases

Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.

SEPTEMBER

Revision

Chapter-10: Microbes in Human Welfare

Microbes in food processing, industrial production, Antibiotics; production and judicious use, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers.

OCTOBER

Unit-IX Biotechnology and its Applications

Chapter-11: Biotechnology - Principles and Processes

Genetic Engineering (Recombinant DNA Technology).

Chapter-12: Biotechnology and its Applications

Application of biotechnology in health and agriculture: genetically modified organisms - Bt crops; RNA interference, Human insulin, gene therapy; molecular diagnosis; transgenic animals; biosafety issues, bio piracy and patents.

Unit-X Ecology and Environment

Chapter-13: Organisms and Populations

Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. (Topics excluded: Organism and its Environment, Major Abiotic Factors, Responses to Abiotic Factors, Adaptations)

NOVEMBER

Chapter-14: Ecosystem

Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy (Topics excluded: Ecological Succession and Nutrient Cycles).

Chapter-15: Biodiversity and its Conservation

Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites

DECEMBER

Revision of Previous year paper

JANUARY

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

PHYSICS

APRIL

Unit I: Electrostatics

Chapter–1: Electric Charges and Fields

Electric Charges; Conservation of charge, 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 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).

Chapter–2: Electrostatic Potential and Capacitance

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 dipole 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

Unit II: Current Electricity

Chapter–3: Current Electricity

Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, electrical resistance, 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 rules, Wheatstone bridge.

Unit III: Magnetic Effects of Current and Magnetism

Chapter–4: Moving Charges and Magnetism

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 uniform magnetic field; moving coil galvanometer - its current sensitivity and conversion to ammeter and voltmeter

JUNE

Chapter-5: Magnetism and Matter

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. Current loop as a magnetic dipole and its magnetic dipole moment. Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.

JULY

Unit IV: Electromagnetic Induction and Alternating Currents

Chapter-6: Electromagnetic Induction

Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction.

Chapter-7: Alternating Current

Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit, resonance; power in AC circuits, power factor, wattless current. AC generator and transformer.

Block Test – Entire syllabus covered from March to June

AUGUST

Unit V: Electromagnetic waves

Chapter-8: Electromagnetic Waves

Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.

Unit VI: Optics

Chapter-9: Ray Optics and Optical Instruments

Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, 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.

SEPTEMBER

Half Yearly Exam: The Entire Syllabus Covered From March to August

OCTOBER

Chapter-10: Wave Optics

Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's 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 maxima (qualitative treatment only)

Unit VII: Dual Nature of Radiation and Matter

Chapter-11: Dual Nature of Radiation and Matter

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.

NOVEMBER

Unit VIII: Atoms and Nuclei

Chapter–12: Atoms

Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, Expression for radius of nth possible orbit, velocity and energy of electron in his orbit, hydrogen spectrum (qualitative ideas only).

Chapter–13: Nuclei

Composition and size of nucleus, nuclear forces, Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.

Unit IX: Electronic Devices

Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits

Energy bands in conductors, semiconductors and insulators (qualitative ideas only), Intrinsic and extrinsic Semiconductor, p and n type, p-n junction Semiconductor diode I-V characteristics in forward and reverse bias, diode as a rectifier.

DECEMBER

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

CHEMISTRY

APRIL

Unit II: Solutions

Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor.

Unit XIII: Amines

Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.

MAY & JUNE

Unit III: Electrochemistry

Redox reactions, 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 law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.

Unit VIII: d and 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, 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.

JULY

Unit IX: Coordination Compounds

Coordination compounds - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, the importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).

AUGUST

Unit IV: Chemical Kinetics

Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; 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), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation.

Unit X: Haloalkanes and Haloarenes.

Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.

SEPTEMBER

Revision

OCTOBER

Unit XII: Aldehydes, Ketones and Carboxylic Acids

Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.

NOVEMBER

Unit XI: Alcohols, Phenols and 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 XIV: Biomolecules

Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. Proteins -Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure. Vitamins - Classification and functions. Nucleic Acids: DNA and RNA.

DECEMBER

Revision of entire syllabus covered
Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year papers

ACCOUNTANCY

APRIL

Part B: Financial Statement Analysis Unit 3: Analysis of Financial Statements

Chapter 1: Financial statements of a Company:

Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013)

Chapter 2: Financial Statement Analysis

Objectives, importance and limitations.

Chapter 3: Comparative & Commonsize financial statements

Comparative Balance Sheet

Comparative statement of Profit & Loss

Commonsize Balance Sheet

Commonsize statement of Profit & Loss

MAY

Chapter 4: Accounting Ratios

Meaning, Objectives, classification and computation.

Liquidity Ratios: Current ratio and Quick ratio.

Solvency Ratios: Debt to Equity Ratio, Total Asset to Debt Ratio, Proprietary Ratio and Interest Coverage Ratio.

Activity Ratios: Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio and Working Capital Turnover Ratio.

Profitability Ratios: Gross Profit Ratio, Operating Ratio, Operating Profit Ratio, Net Profit Ratio and Return on Investment.

Unit 5: Chapter 5: Cash Flow Statement

Meaning, objectives and preparation (as per AS 3 (Revised) (Indirect Method only)

JUNE

Unit 2. Accounting for Companies

Chapter 7: Accounting for Share Capital

Share and share capital: nature and types.

Accounting for share capital: issue and allotment of equity and preferences shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. Concept of Private Placement and Employee Stock Option Plan (ESOP).

Accounting treatment of forfeiture and re-issue of shares. Disclosure of share capital in the Balance Sheet of a company.

JULY

Unit 2. Accounting for Companies (CONTINUE)

Chapter 7: Accounting for Share Capital

Share and share capital: nature and types.

Accounting for share capital: issue and allotment of equity and preference shares. Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears (excluding interest), issue of shares for consideration other than cash. Concept of Private Placement and Employee Stock Option Plan (ESOP).

Accounting treatment of forfeiture and re-issue of shares. Disclosure of share capital in the Balance Sheet of a company.

AUGUST

Chapter 8: Accounting for Debentures – Issue of Debentures

Debentures: Issue of debentures at par, at a premium and at a discount. Issue of debentures for consideration other than cash; Issue of debentures with terms of redemption; debentures as collateral security-concept, interest on debentures. Writing off discount / loss on issue of debentures.

Unit 1: Accounting for Partnership Firms

Chapter 1: Fundamentals of Partnership

Provisions of the Indian Partnership Act 1932 in the absence of partnership deed. Fixed v/s fluctuating capital accounts. Preparation of Profit and Loss Appropriation account- division of profit among partners, guarantee of profits. Past adjustments.

SEPTEMBER

REVISION

OCTOBER

Chapter 2: Change in the Profit Sharing Ratio

Goodwill: nature, factors affecting and methods of valuation - average profit, super profit and capitalization.

Change in the Profit Sharing Ratio among the existing partners - sacrificing ratio, gaining ratio, accounting for revaluation of assets and reassessment of liabilities and treatment of reserves and accumulated profits. Preparation of Revaluation account and Balance Sheet.

Chapter 3: Admission of a partner

Effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and re-assessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet.

NOVEMBER

Chapter 4: Retirement of a partner

Effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill, treatment for revaluation of assets and reassessment of liabilities, adjustment of accumulated profits and reserves, adjustment of capital accounts and preparation of balance sheet. Preparation of loan account of the retiring partner.

Chapter 5: Death of a partner

Calculation of deceased partner's share of profit till the date of death. Preparation of deceased partner's capital account and his executor's account.

Chapter 6: Dissolution of a partnership firm

Meaning of dissolution of partnership and partnership firm, types of dissolution of a firm. Settlement of accounts - preparation of realization account, and other related accounts: capital accounts of partners and cash/bank a/c (excluding piecemeal distribution, sale to a company and insolvency of partner(s)).

DECEMBER

Revision of entire syllabus covered Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

BUSINESS STUDIES

APRIL

Part A: Principles and Functions of Management

Unit 1: Nature and Significance of Management

Management - concept, objectives, and importance, Management as Science, Art and Profession, Levels of Management, Management functions-planning, organizing, staffing, directing and controlling, Coordination- concept and importance

MAY & JUNE

Unit 2: Principles of Management

Principles of Management- concept and significance, Fayol's principles of management Taylor's Scientific management- principles and techniques

Unit 3: Business Environment

Business Environment- concept and importance
Dimensions of Business Environment- Economic, Social, Technological, Political and Legal Demonetization - concept and features
Impact of Government policy changes on business with special reference to liberalization, privatization and globalization in India

Unit 4: Planning

Concept, importance and limitations, Planning process, Single use and standing plans. Objectives, Strategy, Policy, Procedure, Method, Rule, Budget and Programme

JULY

Unit 5: Organising

Concept and importance, Organising Process, Structure of organization - functional and divisional concept. Formal and informal organization – concept, Delegation: concept, elements and importance Decentralization: concept and importance

AUGUST

Unit 6: Staffing

Concept and importance of staffing, Staffing as a part of Human Resource Management – concept Staffing process, Recruitment process, Selection – process, Training and Development - Concept and importance, Methods of training - on the job and off the job - vestibule training, apprenticeship training and internship training.

Unit 7: Directing

Concept and importance, Elements of Directing, Motivation - concept, Maslow's hierarchy of needs, Financial and non-financial incentives, Leadership - concept, styles - authoritative, democratic and laissez faire, Communication - concept, formal and informal communication; barriers to effective communication, how to overcome the barriers

Unit 8: Controlling

Controlling - Concept and importance
Relationship between planning and
controlling Steps in process of controlling

SEPTEMBER

Revision

OCTOBER

Unit 11: Marketing

Marketing – Concept, functions and
philosophies Marketing Mix – Concept and
elements

Product - branding, labelling and packaging –

Concept Price - Concept, Factors determining price

Physical Distribution – concept, components and channels of distribution

Promotion – Concept and elements; Advertising, Personal Selling, Sales Promotion and Public
Relations

Unit 12: Consumer Protection

Concept and importance of consumer
protection The Consumer Protection Act,
2019:

Meaning of consumer, Rights and responsibilities of consumers Who can file a complaint?

Redressal machinery, Remedies available, Consumer awareness - Role of consumer
organizations and Non-Governmental Organizations (NGOs)

Part B: Business Finance and Marketing

NOVEMBER

Unit 9: Financial Management

Concept, role and objectives of Financial Management

Financial decisions: investment, financing and dividend- Meaning and factors affecting them

Financial Planning - concept and importance

Capital Structure – concept and factors affecting capital structure

Fixed and Working Capital - concept and factors affecting their requirements

Unit 10: Financial Markets

Financial Markets: Concept, Functions and

Types Money market and its instruments

Capital market and its types (primary and secondary), methods of floatation in the primary
market Stock Exchange - Functions and trading procedure

Securities and Exchange Board of India (SEBI) - objectives and functions

DECEMBER

**Revision of entire syllabus covered
Discussion of CBSE-Sample paper**

JANUARY

Revision of Previous year paper

ECONOMICS

APRIL

Part A: Introductory Macroeconomics

Money

M1 measurement of money
Different forms of money
Functions of money

Part A: Introductory Macroeconomics

Banking

Credit/ Money creation by the commercial banking system.
Central bank and its functions (example of the Reserve Bank of India): Bank of issue, Govt. Bank, Banker's Bank, Control of Credit
Measures to Control Credit

Government Budget

Meaning, objectives and components.
Classification of receipts - revenue receipts and capital receipts; classification of expenditure – revenue expenditure and capital expenditure.
Measures of government deficit - revenue deficit, fiscal deficit, primary deficit their meaning.

MAY / JUNE

Government Budget (Cont.)

Part A: Introductory Macroeconomics

Introduction to Macro Economics

Micro and Macro Economics
Scope and Significance of Macro Economics

Some Basic Concepts of Macroeconomics

What is Macroeconomics?
Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation.
Circular flow of income (two sector model)

Part B: Indian Economic Development

Indian Economy on the eve of Independence

-Agriculture, Industry, Trade, Infrastructure

Part B: Indian Economic Development

Five Years Plan
Market /Socialist/ Mixed Economy
Goals of Five Years Plan

Features, Problem and Policies of Agriculture

Reforms in Indian Agriculture, Green Revolution

JULY

Features, Problem and Policies of Agriculture(Cont.)

Part B: Indian Economic Development

Strategy of Industrial growth

Policies – IPR/SSI

India's Foreign Trade

Foreign Trade after Independence-Volume, Value and direction of trade

Inward looking Trade strategy

AUGUST

Part B: Indian Economic Development

Economic Reforms since 1991

Features and appraisals of liberalisation, globalisation and privatisation (LPG policy);

Concepts of demonetization and GST

Part A: Introductory Macroeconomics

Aggregate Demand, Aggregate Supply

Aggregate demand and its components.

Propensity to consume and propensity to save (average and marginal).

Part A: Introductory Macroeconomics

Short run equilibrium

Short-run equilibrium output; investment multiplier and its mechanism.

Meaning of full employment and involuntary unemployment

SEPTEMBER

Part A: Introductory Macroeconomics

Numerical related to Aggregate demand and Supply,

Investment Multiplier

Revision

OCTOBER

Part A: Introductory Macroeconomics

Problem of Deficit and Excess Demand

Excess Demand –Causes and Consequences

Excess Supply- Causes and consequences

Measures to correct Inflationary and deflationary Gap

Foreign Exchange rate

Meaning of fixed and flexible rates and managed floating. Equilibrium exchange rate, sources of demand and supply of foreign currency

Balance of Payments

Balance of payments account - meaning and components

Part B: Indian Economic Development

Human Capital Formation

How people become resource; Role of human capital in economic development
Education sector in India

Rural development

Rural Credit and sources of credit, Agriculture marketing - role of cooperatives;
agricultural diversification, organic farming.

NOVEMBER

Part B: Indian Economic Development

Employment

Growth and changes in work force participation rate in formal and informal sectors; problems and policies

Sustainable Economic Development

Meaning, Effects of Economic Development on
Resources and Environment, including global warming

Development Experience of India

A comparison with neighbours

India and Pakistan

India and China

Issues: economic growth, population, sectoral development and other Human Development Indicators

Part A: Introductory Macroeconomics

National Income

Gross National Product (GNP), Net National Product (NNP), Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost; Real and Nominal GDP. GDP and Welfare

Methods of national Income

Value added method, Expenditure method, Income method

DECEMBER

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

POLITICAL SCIENCE

APRIL

The End of Bipolarity

Sub-Topic: Disintegration of Soviet union, Unipolar World, Middle east crisis, Arab spring.

MAY & JUNE

New Centres of Power

Sub-Topic: Organizations: European Union, ASEAN, SAARC, BRICS. Nations: Russia, China, Israel, India, Japan and South Korea.

Contemporary South Asia

Sub-Topic: Democratisation in Pakistan, Nepal, Sri Lanka, Bangladesh and Maldives.

United Nations and its Organizations

Sub-Topic: Principle organs: UNESCO, UNICEF, WHO, ILO, SC and need of its expansion.

JULY

Security in Contemporary World

Sub-Topics: Security: Meaning and Types; Terrorism.

Environment and Natural Resources

Sub-Topic: Environment movement, Global Warming and Climate Change, Conservation of Natural Resources.

AUGUST

Globalization

Sub-Topic: Meaning, Manifestation and Debates.

Part–B

Challenges of Nation-Building

Sub-Topic: Nehru’s approach to nation-building; Legacy of partition: challenge of ‘refugee’ resettlement, the Kashmir problem. Organization and reorganisation of states; Political conflicts over language.

SEPTEMBER

REVISION

OCTOBER

Planned Development

Sub-Topic: Five-year plans, National Development Council, NITI Ayog.

India’s Foreign Policy

Sub-Topic: India’s relation with US, Russia, Israel, China and neighboring countries.

Parties and Party System in India

Sub-Topic: One Party Dominance, Bi- Party System, Multi party system.

NOVEMBER

Democratic Resurgence

Sub-Topic: Total Revolution, Socialism, National Emergency.

Regional Aspirations

Sub-Topic: Rise of regional parties. Punjab crisis. The Kashmir Issue, Movements for Autonomy.

Indian Politics: Recent Trends and Developments

Sub-Topic: Era of Coalitions, National Front, United Front

NDA (1998-2004)

UPA (2004-2014)

NDS (2014 onwards)

DECEMBER

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

PSYCHOLOGY

APRIL

CHAPTER 1: Variations in Psychological Attributes

Introduction. Individual Differences in Human Functioning. Assessment of Psychological Attributes. Intelligence. Psychometric Theories of Intelligence, Information Processing Theory: Planning, Attention-arousal and Simultaneous successive Model of Intelligence, Triarchic Theory of Intelligence; Theory of Multiple Intelligences. Individual differences in Intelligence. Culture and Intelligence. Emotional Intelligence. Special Abilities: Aptitude- Nature and Measurement. Creativity
PRACTICAL ON INTELLIGENCE

MAY & JUNE

CHAPTER 2: Self and Personality

Introduction, Self and Personality. Concept of Self. Cognitive and Behavioural aspects of Self. Culture and Self. Concept of Personality. Major Approaches to the Study of Personality: Type Approaches, Trait Approaches, Psychodynamic Approach and Post Freudian Approaches, Behavioural Approach, Cultural Approach, & Humanistic Approach. Assessment of Personality: Self-report Measures, Projective Techniques, & Behavioural Analysis.
PRACTICAL ON PERSONALITY

JULY

CHAPTER 3: Meeting Life Challenges

Introduction. Nature, Types and Sources of Stress. Effects of Stress on Psychological Functioning and Health. Stress and Health. General Adaptation Syndrome. Stress and Immune System. Lifestyle. Coping with Stress. Stress Management Techniques. Promoting Positive Health and Well-being, Life Skills, & Positive Health.
PRACTICAL ON SELF-CONCEPT

AUGUST

CHAPTER 4: Psychological Disorders

Introduction. Concepts of Abnormality and Psychological Disorders, Historical Background. Classification of Psychological Disorders. Factors Underlying Abnormal Behaviour. Major Psychological Disorders: Anxiety Disorders, Obsessive-Compulsive and Related Disorders, Trauma- and Stressor-Related Disorders, Somatic Symptom and Related Disorders, Dissociative Disorders, Depressive Disorder, Bipolar and Related Disorders, Schizophrenia Spectrum and Other Psychotic Disorders, Neurodevelopmental Disorders, Disruptive, Impulse-Control and Conduct Disorders, Feeding and Eating Disorders, & Substance Related and Addictive Disorder
PRACTICAL ON ANXIETY.

SEPTEMBER

Revision

OCTOBER

CHAPTER 5: Therapeutic Approaches

Introduction. Nature and Process of psychotherapy: Therapeutic relationship. Types of Therapies: Behaviour Therapy, Cognitive Therapy, Humanistic-Existential Therapy, & Alternative Therapies. Factors contributing to healing in Psychotherapy. Ethics in Psychotherapy. Rehabilitation of the Mentally Ill

NOVEMBER

CHAPTER 6: Attitude and Social Cognition

Introduction. Explaining Social Behaviour, Nature and Components of Attitudes: Attitude Formation and Change: Attitude Formation, Attitude Change, & Attitude-Behaviour Relationship. Prejudice and Discrimination. Strategies for Handling Prejudice.

PRACTICAL ON ATTITUDE

CHAPTER 7: Social Influence and Group Processes

Introduction. Nature and Formation of Groups. Type of Groups. Influence of Group on Individual Behaviour: Social Loafing & Group Polarisation.

DECEMBER

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

COMPUTER SCIENCE

APRIL

CHAPTER : 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)

CHAPTER : Exception Handling in Python

Introduction, handling exceptions using try-except-finally blocks

MAY

CHAPTER : File Handling in Python

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

*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 writer(),writerow(),writerows() and read from a csv file using reader()

*Data Structure: Stack, operations on stack (push & pop), implementation of stack using list.

JUNE

CHAPTER : File Handling in Python

JULY

CHAPTER : File Handling in Python

CHAPTER : 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

CHAPTER : Structured Query Language

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, equi-join and natural join.

SEPTEMBER

Revision

OCTOBER

CHAPTER: Interface of python with an SQL database

Connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using connect(), cursor(), execute(), commit(), fetchone(), fetchall(), rowcount, creating database connectivity applications, use of %s format specifier or format() to perform queries

NOVEMBER

CHAPTER : Introduction to Computer Networks

Introduction to networks, Types of network, Network Devices, Network Topologies, Introduction to Internet, URL, WWW and its applications- Web, email, Chat, VoIP. Website, web server and hosting of a website. Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.

DECEMBER

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

PHYSICAL EDUCATION

APRIL

Unit I Management of Sporting Events

- Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling)
- Various Committees & their Responsibilities (pre; during & post)
- Fixtures and its Procedures – Knock-Out (Bye & Seeding) & League (Staircase & Cyclic)
- Intramural & Extramural tournaments
- Community sports program

MAY

Unit II Children & Women in Sports

- Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures
- Exercise guidelines of WHO for different age groups
- Women's participation in sports
- Special consideration (Menarche & Menstrual Dysfunction)
- Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)

Unit III Yoga as Preventive measure for Lifestyle Disease

- Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama.
- Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana Bhujangasana, Shalabhasana, Dhanurasana, Supta-vajarasana, Paschimottanasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.
- Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasana Matsyaasana, Anuloma- Viloma.
- Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadishodhanapranayam, Sitlipranayam.
- Back Pain and Arthritis: Procedure, benefits & contraindication of Tadasana, Urdhwahastootansana, Ardha chakrasana, Ushtrasana, Vakrasana, Sarala Matsyendrasana, Bhujangasana, Gomukhasana, Bhadrasana, Makarasana, Nadi Shodhana pranayama

JUNE

Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang)

- Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)
- Concept of classification and divisioning in sports.
- Concept of inclusion in sports, its need and implementation.
- Advantages of Physical Activities for children with special needs.
- Strategies to make Physical Activities assessable for children with special needs.

JULY

Unit V Sports & Nutrition

- Concept of balance diet and nutrition
- Macro and Micro Nutrients: Food sources & functions
- Nutritive & Non-Nutritive Components of Diet
- Eating for weight control
- Importance of diet in sports

AUGUST

Unit VI Test & Measurement in Sports

- 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 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified Push-Ups for girls).
Computing Basal Metabolic Rate (BMR)
- Measurement of CardioVascular fitness
- Rikli & Jones - Senior Citizen Fitness Test
 - I. Chair Stand Test for lower body strength
 - II. Arm Curl Test for upper body strength
 - III. Chair Sit & Reach Test for lower body flexibility
 - IV. Back Scratch Test for upper body flexibility
 - V. Eight Foot Up & Go Test for agility
 - VI. Six Minute Walk Test for Aerobic Endurance
- Johnsen-Methney test of Motor Educability.

Unit VII Physiology & Injuries in Sports

- Physiological factors determining components of physical fitness
- Effect of exercise on Muscular System
- 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)

Unit IX Psychology & Sports

- Personality; its definition & types (Jung Classification & Big Five Theory)
 - * Motivation, its types and techniques
 - * Exercise Adherence: Reason, benefits & Strategies for enhancing it.
- Meaning, Concept & Types of Aggressions in Sports
- Psychological Attributes in Sports – Self Esteem, Mental Imagery, Self Talk, Goal Setting

SEPTEMBER

Revision

OCTOBER

Unit VIII Biomechanics & Sports

- Newton's Law of Motion & its application in 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

NOVEMBER

Unit X Training in Sports

- Concept of Talent Identification and Talent Development in Sports
- Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle.
- Types & Method to Develop – Strength, Endurance and Speed
- Types & Method to Develop – Flexibility and Coordinative Ability
- * Circuit Training –Introduction & its Importance

**Revision of entire syllabus covered
Discussion of CBSE-Sample paper**

DECEMBER

Revision of Previous year paper

JANUARY

MUSIC

APRIL

- Definition : Alankar, Gram.
- Write the introduction and notation of Roopak Taal with Ekgun, Dugun, Tigun and Chaugun.
- One Razakhani Gat in Raag Bhairav with elaborations, toras and Jhala.

MAY

- Definition : Murchhana, Alaap.
- One Maseetkhani Gat in Raag Bageshree with elaborations, toras.
- Time Theory of Raagas
- Write the introduction and notation of Jhap Taal with Ekgun, Dugun, Tigun and Chaugun.
- Life Sketch and contribution towards music by Ustad Enayat Khan.

JULY

- Definitions : Taan, Gamak .
- One Razakhani Gat in Raag Bageshree with elaborations, toras and Jhala.
- Detailed study of Sangeet Ratnakar.

AUGUST

- Life Sketch and contribution towards music by Ustad Mushtaq Ali Khan.
- Definitions : Meend, Kan.
- Detailed Study of Sangeet Parijat.
- One Razakhani Gat in Raag Malkauns with elaborations, toras and Jhala.

SEPTEMBER

Revision

OCTOBER

- Definitions : Krintan, Zamzama.
- One composition in Ektaal or in Jhap taal in any one of prescribed raga.
- Life Sketch and contribution towards music by Ustad Allaudin Khan.
- Tuning of Instrument opted for.

NOVEMBER

- Definitions : Ghaseet, Sut
- Recognize the swaras of prescribed raagas.
- Hand beats of Roopak taal and Jhap taal with Ekgun and dugun.

DECEMBER

**Revision of entire syllabus covered
Discussion of CBSE-Sample paper**

JANUARY

Revision of Previous year paper

DANCE

APRIL

Taal:-Dhamaar, Rupak, Jhap

Definition:- Tali, Khali, Sam, Tihaayii

Gharana:- Jaipur, lukhnow

MAY

Taal:- Dadra, Jhap

Practical Tatkaar Dhamaar taal

Dances: Bharatnatyam & Kuchipudi

JULY

Definition:- Vandana, Tihaayii, gatnikas, Gatbahv, Angahara, Bhramari, Sangeet, Taal, laya

AUGUST

Definition:- Uptlavana, lokadharmi, NatyaDharmi, Rasa and Bhava

Practical That, Amad salami, Toda, paran, Tihayii in Dhamaar Taal

Dances: Katahakali, Odissi, Manipuri

SEPTEMBER

Revision

OCTOBER

Basic understanding of the term”Abhinay” and definition of it’s four aspects.

Acquaintance with the traditional costumes and makeup. Revision

of all Taals. Ability to Notate a Paran /Tukraa/Tora.

NOVEMBER

Practical work practice and revision of a Taals.

Rasa definition and explanation of nine rasa

Definition: Lok Dharmi, Natya Dharmi, Rasa and Bhava

DECEMBER

Revision of entire syllabus covered

Discussion of CBSE-Sample paper

JANUARY

Revision of Previous year paper

PAINTING

APRIL

THEORY: (i) THE BENGAL SCHOOL OF PAINTING
(ii) FUNDAMENTALS OF VISUAL ART
(iii) SIX LIMBS OF INDIAN PAINTING

PRACTICAL: (i) ABSTRACT ART
(ii) STILL LIFE

MAY

THEORY: (i) THE MODERN TRENDS IN INDIAN ART: PAINTINGS
(ii) HISTORY OF INDIAN PAINTING
(iii) MINIATURE PAINTING

PRACTICAL: (i) LANDSCAPE
(ii) STILL LIFE

JULY

THEORY: (i) THE MODERN TRENDS IN INDIAN ART: GRAPHIC-PRINTS
(ii) RAJASTHANI SCHOOL OF PAINTING
(iii) THE PAHARI SCHOOL

PRACTICAL: (i) LANDSCAPE
(ii) STILL LIFE

AUGUST

THEORY: (i) THE MODERN TRENDS IN INDIAN ART: SCULPTURES
(ii) THE MUGHAL SCHOOL OF ART
(iii) THE DECCAN SCHOOL OF ART

PRACTICAL: (i) LANDSCAPE
(ii) STILL LIFE

SEPTEMBER

THEORY: (i) THE MODERN TRENDS IN INDIAN ART:
GRAPHIC-PRINTS AND SCULPTURES

PRACTICAL: (ii) REVISION OF COVERED SYLLABUS
(i) ABSTRACT PAINTING

OCTOBER

THEORY: (i) REVISION (FULL SYLLABUS: UNIT-1,2,AND 3))

PRACTICAL: (i) LANDSCAPE
(ii) FOLK ART PAINTING

NOVEMBER

THEORY: (i) REVISION (FULL SYLLABUS: UNIT-1,2,AND 3)

PRACTICAL: (i) LANDSCAPE
(ii) STILL LIFE

NOTE: THE STUDENTS NEED TO REFER TO UNIT-4 AND UNIT-5

ARTIFICIAL INTELLIGENCE

APRIL

Part-B(Subject Specific skills)

Unit-1 Capstone Project

Understanding the problem, Decomposing the problem through DT framework, Analytic Approach, Data Requirements, Data Collection, Modeling approach

How to validate model quality

- By test-train split
- Introduce concept of cross validation Metrics of model quality by simple Maths and examples from small datasets – scaled up to capstone project (Apply)
- RMSE- Root Mean Squared Error
- MSE – Mean Squared Error
- MAPE – Mean Absolute Percent Error

Introduction to commonly used algorithms and the science behind them Showcase through a compelling story

MAY

Unit-2 Model Lifecycle

Different aspects of Model

Train, test, validate, What are hyper parameters, Commonly used platforms to build and run models (Introduction), Recommended tools, Links to different platforms (Watson)

Lifecycle of an AI model (Build, Deploy and Retrain)

JUNE

Part A(EmployabilitySkills)

Unit-1 Communication Skills-IV

Active Listening, Parts of Speech, Writing Sentences

Unit-2 Self-management skills--IV

Motivation and Positive Attitude, Result Orientation, Self-awareness

AUGUST

Artificial Intelligence Logbook and Project book completion.

SEPTEMBER

Part A(EmployabilitySkills)

Unit-4 Entrepreneurial Skills-IV

Entrepreneurship and Entrepreneur, Barriers to Entrepreneurship, Entrepreneurial Attitudes, Entrepreneurial Competencies

Unit-5 Green Skills-IV (December)

Green Jobs, Importance of Green Jobs

OCTOBER

Part-B(Subject Specific skills)

Unit-3 Storytelling through data

The Need for Storytelling o Information processing and recalling stories o Why is storytelling important?(Structure that story!, How to create stories?, Begin with a pen-paper approach, Dig deeper to identify the sole purpose of your story ,Use powerful headings o Design a Road-Map o Conclude with brevity)

Ethics of storytelling

Types of Data and Suitable Charts , Text [Wordclouds] , Mixed [Facet Grids],Numeric [Line Charts/ Bar Charts] , Stocks [Candlestick Charts] , Geographic [Maps], Stories During the Steps of Predictive Modeling, Data Exploration, Feature Visualizing, Model Creation, Model Comparisons. Best Practices of Storytelling.

NOVEMBER

Part A(EmployabilitySkills)

Unit-3 Information and communication technology skills-IV

Getting Started with Spreadsheet, Performing Basic Operations in a Spreadsheet, Working with Data and Formatting Text, Advanced Features in Spreadsheet, Presentation Software Opening, Closing, Saving and Printing a Presentation, Working with Slides and Text in a Presentation, Advanced Features used in Presentation.

DECEMBER

Revision of entire syllabus covered.

JANUARY

**Discussion of CBSE-Sample paper.
Revision of Previous year paper**

ਪੰਜਾਬੀ

ਅਪ੍ਰੈਲ

ਵਿਸ਼ਾ-ਪਾਠ ੧-ਭਾਈ ਵੀਰ ਸਿੰਘ

ਉਪ-ਵਿਸ਼ਾ-ਟੁਕੜੀ ਜੱਗ ਤੋਂ ਨਿਆਰੀ(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ,ਪ੍ਰਸ਼ਨ-ਉੱਤਰ)

ਵਿਸ਼ਾ -ਪਾਠ-੧ ਸਾਂਝ

ਉਪ-ਵਿਸ਼ਾ-ਸਾਰ, ਵਿਸ਼ਾ-ਵਸਤੂ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ

ਵਿਆਕਰਣ

ਵਿਸ਼ਾ-ਵਾਕ-ਵਟਾਂਦਰਾ

ਵਿਸ਼ਾ-ਪਾਠ-੨ ਤਾਜ ਮਹਿਲ

ਉਪ-ਵਿਸ਼ਾ-(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ)

ਵਿਸ਼ਾ-ਪਾਠ ੨ ਨੀਲੀ

ਉਪ-ਵਿਸ਼ਾ-ਸਾਰ, ਵਿਸ਼ਾ ਵਸਤੂ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ

ਮਈ

ਵਿਸ਼ਾ-ਪਾਠ-੩ ਚੁੰਮ-ਚੁੰਮ ਰੱਖੋ

ਉਪ-ਵਿਸ਼ਾ-(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ)

ਵਿਸ਼ਾ-ਪਾਠ-੩ ਮਾੜਾ ਬੰਦਾ

ਉਪ-ਵਿਸ਼ਾ-ਸਾਰ, ਵਿਸ਼ਾ ਵਸਤੂ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ

ਜੂਨ-ਜੁਲਾਈ

ਵਿਸ਼ਾ-ਪਾਠ-੪ ਵਾਰਸ ਸ਼ਾਹ

ਉਪ-ਵਿਸ਼ਾ-(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ)

ਵਿਸ਼ਾ-ਪਾਠ-੪ ਘਰ ਜਾ ਆਪਣੇ

ਉਪ-ਵਿਸ਼ਾ-ਸਾਰ, ਵਿਸ਼ਾ ਵਸਤੂ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ

ਵਿਆਕਰਣ

ਵਿਸ਼ਾ-ਪੱਤਰ

ਅਗਸਤ

ਵਿਸ਼ਾ-ਮੇਰਾ ਬਚਪਨ

ਉਪ-ਵਿਸ਼ਾ- ਉਹ ਦਿਨ(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ)

ਵਿਸ਼ਾ-ਪਾਠ-੫ ਗੀਤ

ਉਪ-ਵਿਸ਼ਾ-(ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ)

ਵਿਆਕਰਣ

ਵਿਸ਼ਾ-ਅਖਾਣ

ਉਪ ਵਿਸ਼ਾ-ਵਰਤ ਕੇ ਸਥਿਤੀ ਸਪੱਸ਼ਟ ਕਰਨਾ

ਸਤੰਬਰ

ਛਿਮਾਹੀ-ਪ੍ਰੀਖਿਆ

ਅਕਤੂਬਰ

ਵਿਸ਼ਾ-ਪਾਠ-੬ ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ

ਉਪ-ਵਿਸ਼ਾ-ਸਾਰ, ਵਿਸ਼ਾ ਵਸਤੂ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ

ਵਿਸ਼ਾ-ਪਾਠ-੬ ਪੰਜਾਬ ਦੀਆਂ ਲੋਕ-ਖੇਡਾਂ

ਉਪ-ਵਿਸ਼ਾ-ਸਾਰ, ਵਿਸ਼ਾ ਵਸਤੂ, ਪ੍ਰਸ਼ਨ-ਉੱਤਰ

ਨਵੰਬਰ

ਵਿਸ਼ਾ-ਪੰਜਾਬ ਦੇ ਲੋਕ-ਨਾਚ, ਪੰਜਾਬ ਦੇ ਰਸਮ ਰਿਵਾਜ

ਦੁਹਰਾਈ -ਪਾਠ-ਪੁਸਤਕ ਅਤੇ ਵਿਆਕਰਣ

ਦਸੰਬਰ

ਪ੍ਰੀ -ਬੋਰਡ -੧

ਜਨਵਰੀ

ਪ੍ਰੀ-ਬੋਰਡ-੨

Note:

Half Yearly Exam: The Entire Syllabus Covered From April to August

Pre-Board-I: The Entire Syllabus Covered From April to November.

Pre-Board-II: The Entire Syllabus Covered From April to November.

**HAPPY
LEARNING !**