

GURU AMAR DASS PUBLIC SCHOOL

CLASS XII SYLLABUS (2022-23)

ENGLISH:

Section A

Reading Skills

Reading Comprehension through Unseen Passage 20 Marks

I. One unseen passage to assess comprehension, interpretation and inference. Vocabulary and inference of meaning will also be assessed. The passage may be factual, descriptive or literary. (10x1=10 Marks)

II. One unseen case-based passage with verbal/visual inputs like statistical data, charts etc. (10x1=10 Marks)

Note: The combined word limit for both the passages will be 700-750 words.

Multiple Choice Questions / Objective Type Questions will be asked.

Section B

III. Creative Writing Skills 20 Marks

The section has Short and Long writing tasks.

i. Notice up to 50 words. One out of the two given questions to be answered.(5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar : 1).

ii. Formal/Informal Invitation and Reply up to 50 words. One out of the two given questions to be answered. (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).

iii. Letters based on verbal/visual input, to be answered in approximately 120-150 words. Letter types include application for a job with bio data or resume. Letters to the editor (giving suggestions or opinion on issues of public interest) . One out of the two given questions to be answered . (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1).

iv. Article/ Report Writing, descriptive and analytical in nature, based on verbal inputs, to be answered in 120-150 words. One out of the two given questions to be . (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1)

Section C
This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, analysis, interpretation and extrapolation beyond the text.

IV. Reference to the Context 40 Marks

i. One Poetry extract out of two from the book Flamingo to assess comprehension, interpretation, analysis and appreciation. (6x1=6 Marks)

ii. One Prose extract out of two from the book Vistas to assess comprehension, interpretation, analysis and appreciation. (4x1=4 Marks)

iii. One prose extract out of two from the book Flamingo to assess comprehension, interpretation and analysis. (6x1=6Marks)

V. Short answer type question (from Prose and Poetry from the book Flamingo), to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking. Five questions out of the six given are to be answered.

(5x2=10 Marks)

VI. Short answer type question, from Prose (Vistas), to be answered in 40- 50 words. Questions should elicit inferential responses through critical thinking. Any 2 out of 3 questions to be done. (2x2=4 Marks)

VII. One Long answer type question, from Prose/Poetry (Flamingo), to be answered in 120-150 words. Questions can be based on incident / theme / passage / extract / event as reference points to assess extrapolation beyond and across the text. The question will elicit analytical and evaluative response from student. Any 1 out of 2 questions to be done. (1x5=5 Marks)

VIII. One Long answer type question, based on the chapters from the book Vistas, to be answered in 120-150 words to assess global comprehension and extrapolation beyond the text.

Questions to provide evaluative and analytical responses using incidents, events, themes as reference points. Any 1 out of 2 questions to be done . (1x5=5 Marks)

Prescribed Books

1. Flamingo: English Reader published by National Council of Education Research and Training, New Delhi

(Prose)

- The Last Lesson
- Lost Spring
- Deep Water
- The Rattrap
- Indigo
- Poets and Pancakes
- The Interview
- Going Places

(Poetry)

- My Mother at Sixty-Six
- Keeping Quiet
- A Thing of Beauty
- A Roadside Stand
- Aunt Jennifer's Tigers

2. Vistas: Supplementary Reader published by National Council of Education Research and Training, New Delhi

- The Third Level
- The Tiger King
- Journey to the end of the Earth
- The Enemy
- On the Face of It
- Memories of Childhood
- The Cutting of My Long Hair
- We Too are Human Beings

INTERNAL ASSESSMENT

Assessment of Listening Skills - 05 marks.

Assessment of Speaking Skills – 05 Marks

Project Work - 10 Marks

ACCOUNTANCY

Theory: 80 Marks Project: 20 Marks

Part A Accounting for Partnership Firms and Companies

Unit 1. Accounting for Partnership Firms

Unit 2. Accounting for Companies

Part B Financial Statement Analysis

Unit 3. Analysis of Financial Statements

Unit 4. Cash Flow Statement

Part C Project Work 20

Project work will include:-

Project File 4 Marks

Written Test 12 Marks

Viva Voce 4 marks

ECONOMICS

Theory: 80 Marks Project: 20 Marks

Part A Introductory Macroeconomics

- *National Income and Related Aggregates
- *Money and Banking
- *Determination of Income and Employment
- *Government Budget and the Economy
- *Balance of Payments

Part B Indian Economic Development

- *Development Experience (1947-90)
- *Economic Reforms since 1991
- *Current Challenges facing Indian Economy
- *Development Experience of India – A Comparison with Neighbours

BUSINESS STUDIES

Theory: 80 Marks Project: 20

Part A Principles and Functions of Management

1. Nature and Significance of Management
- 2 Principles of Management
- 3 Business Environment
- 4 Planning
- 5 Organising
- 6 Staffing
- 7 Directing
- 8 Controlling

Part B Business Finance and Marketing

- 9 Financial Management
- 10 Financial Markets
- 11 Marketing Management
- 12 Consumer Protection

BIOLOGY

Unit-VI Reproduction

Chapter-2: Sexual Reproduction in Flowering Plants

Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding 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.

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 idea 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; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

Chapter-6: Molecular Basis of Inheritance

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

Chapter-7: Evolution

Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic 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; adaptive radiation; 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.

Chapter-10: Microbes in Human Welfare

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

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: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy 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)

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.

PHYSICS

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 polarization, 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).

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, 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

Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.

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. Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.

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 (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.

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.

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.

Unit VIII: Atoms and Nuclei

Chapter–12: Atoms

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

Chapter–13: Nuclei

Composition and size of nucleus, nuclear force 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 semiconductors- p and n type, p-n junction Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode -diode as a rectifier.

CHEMISTRY

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 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 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 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.

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).

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.

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 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.

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.

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 function

HISTORY

Themes in Indian History Part-1,2,3

Theme 1 Bricks, Beads and Bones

Theme 1 Bricks, Beads and Bones

Theme 2 Kings, Farmers and Towns

Theme 3 Kinship, Caste and Class

Theme 4 Thinkers, Beliefs and Buildings

Theme 5 Through the Eyes of Travellers

Theme 6 Bhakti-Sufi Traditions

Theme 7 An Imperial Capital: Vijayanagar

Theme 8-Peasants, Zamindars and the State.

Theme 10 Colonialism and The Countryside

Theme 11 Rebels and the Raj

Theme 13 Mahatma Gandhi and the Nationalist Movement

Theme 15 Framing the Constitution

Including Map Work and project work of The Related Themes

POLITICAL SCIENCE

1.The End Of Bipolarity

2.New Centres Of Power

3.Contemporary South Asia

4.Challenges of Nation Building

5.Planned Development

6.India” Foreign Policy

7.Parties and Party System

8.United Nation and its organisation

9.Security in Contemporary World Politics

10.Environment and Natural resources

11.Globalisation

12.Democratic resurgence

13.Regional aspirations

14.Indian Politics:Trends and developments

MATHEMATICS

Unit-I: Relations and Functions

1. Relations and Functions: Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.

2. Inverse Trigonometric Functions: Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.

Unit-II: Algebra

1. 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. Noncommutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries)

2. Determinants : Determinant of a square matrix (up to 3 x 3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.

Unit-III: Calculus

1. Continuity and Differentiability : Continuity and differentiability, chain rule, derivative of inverse trigonometric functions, like $\sin^{-1} x$, $\cos^{-1} x$ and $\tan^{-1} x$, 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.

2. 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).

3. Integrals: Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types and problems based on them.

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

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

4. Applications of the Integrals : Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only)

5. Differential Equations : Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type

$dx + py = q$, where p and q are functions of x or constants. $dx dy + px = q$, where p and q are functions of y or constants

Unit-IV: Vectors and Three-Dimensional Geometry

1. 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.

2. 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. Angle between two lines.

Unit-V: Linear Programming

1. 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).

Unit-VI: Probability

1. Probability: Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution, mean of random variable

PUNJABI

ਕਵਿਤਾਵਾਂ

1-ਟੁਕੜੀ ਜੱਗ ਤੋਂ ਨਿਆਰੀ ਭਾਈ ਵੀਰ ਸਿੰਘ

2-ਤਾਜ ਮਹਲ ਕਵਿਤਾ ਮੋਹਨ ਸਿੰਘ

3-ਚੁੰਮ ਚੁੰਮ ਰੱਖੋ ਨੰਦ ਲਾਲ ਨੂਰਪੁਰੀ

ਕਹਾਣੀਆਂ

1-ਸਾਂਝ ਸੁਜਾਨ ਸਿੰਘ

2-ਨੀਲੀ ਕਰਤਾਰ ਸਿੰਘ ਦੁੱਗਲ

ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ ਦੀ ਜਾਣ ਪਛਾਣ

1-ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ

2-ਪੰਜਾਬ ਦੇ ਰਸਮ-ਰਿਵਾਜ

ਵਿਆਕਰਣ-ਸੰਖੇਪ ਰਚਨਾ, ਕਾਰ ਵਿਹਾਰ ਦੇ ਪੱਤਰ, ਪੈਰਾ ਰਚਨਾ 150ਸ਼ਬਦ, ਵਾਕ ਵਟਾਂਦਰਾ, ਅਖਾਣਾਂ ਦੇ ਅਰਥ ਅਤੇ ਵਾਕ,

ਕਵਿਤਾਵਾਂ

1- ਵਾਰਸ ਸ਼ਾਹ ਅੰਮ੍ਰਿਤਾ ਪ੍ਰੀਤਮ

2-ਮੇਰਾ ਬਚਪਨ ਹਰਿਭਜਨ ਸਿੰਘ

3-ਗੀਤ ਸ਼ਿਵ ਕੁਮਾਰ ਬਟਾਲਵੀ

ਕਹਾਣੀਆਂ

1-ਮਾੜਾ ਬੰਦਾ ਪ੍ਰੇਮ ਪ੍ਰਕਾਸ਼

2-ਘਰ ਜਾਹ ਆਪਣੇ ਗੁਲਜ਼ਾਰ ਸਿੰਘ ਸੰਧੂ

ਪੰਜਾਬੀ ਸਭਿਆਚਾਰ ਦੀ ਜਾਣ ਪਛਾਣ

1-ਪੰਜਾਬ ਦੀਆਂ ਲੋਕ ਖੇਡਾਂ ਸੁਖਦੇਵ ਮਾਦਪੁਰੀ

2-ਪੰਜਾਬ ਦੇ ਲੋਕ ਨਾਚ ਜਗੀਰ ਸਿੰਘ ਨੂਰ

ਵਿਆਕਰਣ

ਵਾਕ ਵਟਾਂਦਰਾ, ਅਖਾਣਾਂ ਦੇ ਅਰਥ ਅਤੇ ਵਾਕ, ਸੰਖੇਪ ਰਚਨਾ, ਕਾਰ ਵਿਹਾਰ ਦੇ ਪੱਤਰ, ਪੈਰਾ ਰਚਨਾ ਜਾਂ ਲੇਖ ਰਚਨਾ

150ਸ਼ਬਦ

PHYSICAL EDUCATION

Unit 1 Management of Sporting Events

Unit 2 Children and Women in sports

Unit 3 Yoga as preventive measure for lifestyle disease

Unit 4 Physical Education and Sports for CWSN

Unit 5 Sports and Nutrition

Unit 6 Test and Measurement in Sports

Unit 7 Psychology and injuries in Sports

Unit 8 Biomechanics and Sports

Unit 9 Psychology and Sports

Unit 10 Training and doping in Sports

GEOGRAPHY

Fundamentals of Human Geography

Unit-1 Human Geography: Nature and Scope

Unit 2: People

• The World Population- distribution, density and growth

Population change - Components of population change, Demographic Transition

Human development concept, selected indicators, international comparisons

Unit 3 Human Activities

Primary activities concept and changing - trends; gathering, pastoral, mining, subsistence agriculture, modern agriculture; people engaged in agricultural and allied activities examples from selected countries.

■ Secondary activities- concept; manufacturing: types - household, small scale, large scale; agro based and mineral based industries;

■ Tertiary activities - concept; trade, transport and tourism; services; people engaged in tertiary activities

■ Quaternary activities- concept; people engaged in quaternary activities.

Case study from selected countries

Unit 4: Transport, Communication and Trade

Land transport roads, railways; transcontinental railways Water transport- inland waterways; major ocean routes

■ Air transport- Intercontinental air routes Oil and gas pipelines

Satellite communication and cyber space importance and usage for geographical information; use of GPS

■ International trade- bases and changing patterns; ports as gateways of international trade; role of WTO in international trade

Map Work on identification of features based on 1-5 units on the outline Physical/Political map of World.

COMPUTER SCIENCE

- 1 Python Revision Tour
- 2 Python Revision Tour -II
- 3 Working with Functions
- 4 Using Python Libraries
- 5 File Handling
- 6 Recursion
- 7 Idea of Algorithmic Efficiency
- 8 Data Structures – I; Linear Lists
- 9 Data Structures II - Stacks and Queues using List
- 10 Communication and Network Concepts
- 11 Relational Databases
- 12 Simple Queries in SQL
- 13 Table Creation and Data Manipulation Commands
- 14 Grouping Records, Joins in SQL
- 15 Interface Python with MySQL

MUSIC

Unit 1

1. Brief study of Alankar, Varna, Kan, Meend, Khatka, Murki, Gamak.
Gram, Murchhana, Alap, Tana.

Unit 2

1. Historical development of Time Theory of Ragas
2. Detail study of the following:
 - I. Sangeet Parijat

Unit 3

1. Detail study of the following:
 - I. Sangeet Ratnakar
2. Life sketch and contribution of Faiyaz Khan, Bade Ghulam Ali Khan, Krishna Rao Shankar Pandit

Unit 4

1. Description of Prescribed Talas along with Tala Notation with Thah, Dugun, Tigun and Chaugun:

Jhaptala Rupak Dhama

Study of various parts and tuning of Tanpura

Unit 5

1. Critical study of prescribed Ragas along with recognizing Ragas from phrases of swaras and elaborating them.
2. Writing in Notation the Compositions of Prescribed Ragas.
Bhairav
Bageshri
Malkauns

PAINTING

Unit 1

- (a) The Rajasthani School:
 1. Origin and Development
 2. Sub-Schools-Mewar, Bundi, Jodhpur, Bikaner, Kishangarh and Jaipur
 3. Main features of the Rajasthani School
 4. Appreciation of the following Rajasthani paintings

Title

Maru-Ragini
 Chaugan Players
 Krishna on Swing
 Radha (Bani-Thani)
 Bharat Meets Rama at Chitrakuta

Painter

Sahibdin
 Dana
 Nuruddin
 Nihal Chand
 Guhman

(b)The Pahari School:

1. Origin and development
2. Sub-Schools-Basohli, Guler, Kangra, Chamba and Garhwal
3. Main features of the Pahari School
4. Appreciation of the following Pahari paintings:

Title

Krishna with Gopis Nand Yashoda
 Krishna with Kinsmen going to Vrindavana

Painter

Manaku
 Nain Sukh

Unit 2: The Mughal and Deccan Schools of Miniature Painting (16th Century AD to 19th Century A.D.)

(a) The Mughal School

1. Origin and development
2. Main features of the Mughal School
3. Appreciation of the following Mughal Paintings:

Title

Krishna Lifting Mount Govardhana
 Falcon on a Bird-Rest
 Kabir and Raidas
 Marriage Procession of Dara Shukoh

Painter

Miskin
 Ustad Mansoor
 Ustad Faquirullah Khan
 Haji Madni

UNIT 3: The Bengal School of Painting and the Modern trends in Indian Art

A) (About the beginning to mid of the 20th Century)

- (i) National Flag of India and the Symbolic significance of its forms and the colours.
- (ii) Introduction to the Bengal School of Painting
 - (i) Origin and development of the Bengal School of Painting
 - (ii) Main features of the Bengal School of Painting
- (iii) Appreciation of the following paintings of the Bengal school:
 - (i) Journey's End – Abanindranath Tagore
 - (ii) Shiv and Sati- Nandla Bose
 - (iii) Radhika - M.A.R.Chughtai
 - (iv) Meghdoot - Ram Gopal Vijaivargiya Contribution of Indian artists in the struggle for National Freedom Movement.

B) The Modern Trends in Indian Art Appreciation of the following contemporary (Modern) Indian Art

a) Paintings:

- (i) Rama Vanquishing the Pride of the Ocean – Raja Ravi Varma
- (ii) Mother and child – Jamini Roy
- (iii) Haldi Grinders - Amrita Sher Gill
- (iv) Mother Teresa - M.F.Husain

b) Graphic - prints:

- (i) Children – Somnath Hore
- (ii) Devi – Jyoti Bhatt
- (iii) Of Walls - Anupam Sud
- (iv) Man, Woman and Tree - K. Laxma Goud

c) Sculptures:

- (i) Triumph of Labour - D. P. Roychowdhury
- (ii) Santhal Family - RamkinkarVaij
- (iii) Cries Un - heard – Amar Nath Sehgal
- (iv) Ganesha - P.V. Janaki Ram