

# Syllabus

2025 - 2026

CLASS - XII

# **DELHI PUBLIC SCHOOL**

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# DELHI PUBLIC SCHOOL

# CLASS - XII

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**SYLLABUS - 2025-2026** 



**SUBJECT - ENGLISH** 

**Working Days-19** Month-April **Topics** 

FL My Mother At Sixty Six (Poem)

The Last Lesson Lost Spring

Keeping Quiet (Poem)

VS The Third Level **AWS Notice Writing** 

Letter To The Editor

**Working Days-18 Month- May** 

**Topics** 

FL Deep Water **VS** The Tiger King **AWS** Article Writing

**Working Days-16** Month-June

**Topics** 

FL The Rattrap

VS Journey To The End of the Earth

**Working Days-24** Month-July

**Topics** 

FL A Thing of Beauty (Poem)

Indigo

Poets and Pancakes

VS The Enemy **AWS** Job Application



SUBJECT - ENGLISH

Month	- Au	gust	Working Days-21
		Topics	
FL	-	A Roadside Stand (Poem)	
VS	-	On The Face Of It	
AWS	-	Invitations & Replies (Formal & In	iformal)
		Report Writing	
		ASL	
Month	- Se	ptember	Working Days-19
		Topics	
REVIS	ION	FOR HALF YEARLY	
FL	-	Aunt Jennifer's Tigers (Poem)	
Month	- Oc	tober	Working Days-13
		Topics	
FL	-	The Interview	
		Going Places	
AWS	-	REVISION	
Month	- No	vember	Working Days-21
		Topics	
VS	-	Memories Of Childhood	
		REVISION	
		PROJECT & VIVA	
Month	- De	cember	
		Topics	
REVIS	ION	& PRE BOARD	



# SUBJECT – APPLIED MATHEMATICS

Month- April Working Days-16

#### **Topics**

## **UNIT - 8: LINEAR PROGRAMMING**

- 8.1 Introduction and related terminology
- 8.2 Mathematical formulation of Linear Programming Problem
- 8.3 Different types of Linear Programming Problems
- 8.4 Graphical method of solution for problems in two variables
- 8.5 Feasible and infeasible Regions
- 8.6 Feasible and infeasible solutions, optimal feasible solution

# UNIT - 1: NUMBERS, QUANTIFICATION AND NUMERICAL

# **APPLICATIONS**

- 1.1 Modulo Arithmetic
- 1.2 Congruence Modulo
- 1.4 Alligation and Mixture
- 1.5 Numerical Problems

Boats and Streams (upstream and downstream)

Pipes and Cisterns

Races and Games

1.6 Numerical Inequalities

#### **UNIT - 2: ALGEBRA**

- 2.1 Matrices and types of matrices
- 2.2 Equality of matrices, Transpose of a matrix, Symmetric and Skew symmetric matrix
- 2.3 Algebra of Matrices

Month- May

**Working Days-08** 

#### **Topics**

#### **UNIT - 2 : ALGEBRA (CONTINUED)**

- 2.4 Determinants
- 2.5 Inverse of a matrix
- 2.6 Solving system of simultaneous equations using matrix method, Cramer's rule

## **UNIT - 3: CALCULUS**

**Differentiation and its Applications** 

- 3.1 Higher Order Derivatives
- 3.2 Applications of Derivatives

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**SYLLABUS - 2025-2026** 



# SUBJECT – APPLIED MATHEMATICS

Month- June Working Days-16

Topics

Qualifying Examination
UNIT - 3 : CALCULUS (CONTINUED)

3.3 Marginal Cost and Marginal Revenue using derivatives

3.4 Increasing/Decreasing Functions

3.5 Maxima and Minima

Month- July Working Days-24

#### **Topics**

# **UNIT-3: CALCULUS (CONTINUED)**

Integration and its Applications

3.6 Integration

3.7 Indefinite Integrals as family of curves

3.8 Definite Integrals as area under the curve

3.9 Application of Integration

Month- August Working Days-21

# **Topics**

# **Differential Equations and Modeling**

3.10 Differential Equations

3.11 Formulating and Solving Differential Equations

3.12 Application of Differential Equations

#### **UNIT - 4: PROBABILITY DISTRIBUTIONS**

4.1 Probability Distributions

4.2 Mathematical Expectation

4.3 Variance

4.4 Binomial Distribution

4.5 Poison Distribution

4.6 Normal Distribution



# SUBJECT – APPLIED MATHEMATICS

**Working Days-19** Month- September **Topics** Revision for Half yearly Examination **UNIT - 5 :INFERENTIAL STATISTICS** 5.1 Population and Sample 5.2 Parameter and Statistics and Statistical Interferences 5.3 t-test (one sample t-test and two independent groups t-test Working Days-13 **Month-October Topics UNIT - 6: INDEX NUMBERS & TIME BASED DATA** 6.4 Time Series 6.5 Components of Time Series 6.6 Time Series analysis for uni-variate data 6.7 Secular Trend 6.8 Methods of Measuring trend **Working Days-21 Month-November Topics UNIT - 7 : FINANCIAL MATHEMATICS** 7.1 Perpetuity, Sinking Funds 7.3 Calculation of EMI 7.4 Calculation of Returns, Nominal Rate of Return 7.5 Compound Annual Growth Rate 7.7 Linear method of Depreciation Revision Discussion on few sample Papers PB-1. **Working Days-21 Month- December Topics** PB-1 (Continued..) Discussion on common errors. PB-2.

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# SUBJECT – APPLIED MATHEMATICS

Month- January	Working Days-18
Topics	
SSCE Practical Examination - 2026	
Month- February	Working Days-21
Topics	
SSCE Theory Paper Examination - 2026	
Month- March	Working Days-20
Topics	
SSCE Theory Paper Examination - 2026 ( Continued)	

Theory paper : Full Marks : 80 Practical paper : Full Marks : 20

Practical paper comprised of :Record of at least 10 practicals.

- One Mathematics activity to be shown on the day of Mathematics activity.
- One practical to be shown on the day of the exam.
- Viva

Total marks: 100



#### SUBJECT - MATHEMATICS CORE

Month- April Working Days-16

#### **Topics**

# 1. Linear Programming Problems (LPP):

Introduction, related terminologies such as Constraints, Objective functions, 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).

# 2. Probability:

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

## **Activity No. 13**

#### 3. 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 and geometrical interpretation, properties and application of scalar product of vectors, Definition and geometrical interpretation, properties and application of vector product of vectors,

# **Activity No. 12**

#### 4. Three-Dimensional Geometry:

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



#### SUBJECT - MATHEMATICS CORE

Month- May Working Days-08

#### **Topics**

#### 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 & existence of nonzero matrices whose product is the zero matrix (restrict to square matrices of order 2).

#### 5. 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.

Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).

**Activity No. 6** 

Month- June

**Working Days-16** 

# **Topics**

#### **Qualifying Exam**

#### 1. Relations:

Types of relations, reflexive, symmetric transitive and equivalence relations,

Activity No. 1 and 2

## 2. Functions:

One to one and onto functions,

**Activity No. 4** 



# **DELHI PUBLIC SCHOOL**

**CLASS - XII** 

**SUBJECT - MATHEMATICS CORE** 

Month-July

**Working Days-24** 

#### **Topics**

#### 3. Inverse trigonometric functions:

Definition, range, domain, principal value branch. Graphs of Inverse trigonometric functions,

#### **Activity No. 3**

#### 4. Continuity and Differentiability:

Continuity and differentiability, chain rule. derivatives of inverse trigonometric function, derivative of implicit functions. Concept or exponential and logarithmic functions Derivatives of logarithmic and exponential functions.

Logarithmic differentiation, derivative of Functions expressed in parametric forms. Second order derivatives

#### **Activity No.5**

#### 5. Applications of Derivatives:

Rate of change of physical quantities, 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.

Activity No. 7, 8, 9, 10 and 13,

**Month- August** 

**Working Days-21** 

# Topics

#### 6. Integration:

Integration as inverse process of differentiation, Integration of a variety of functions by substitution, Evaluation of simple integrals of the special type of problems based on them by partial fractions.

Integration by parts, special integrals like  $\frac{1}{x^2-a^2}$ ,  $\frac{1}{a^2-x^2}$ ,  $\frac{1}{\sqrt{x^2+a^2}}$ ,  $\frac{1}{\sqrt{a^2-x^2}}$ 

$$\sqrt{a^2-x^2}$$
,  $\sqrt{x^2\pm a^2}$ ,  $(ax+b)\sqrt{x^2\pm a^2}$ ,  $(ax+b)\sqrt{a^2-x^2}$ 

#### 7. Definite integrals

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

**Activity No. 11** 



#### **SUBJECT - MATHEMATICS CORE**

Month- September Working Days-19

Topics

#### Half Yearly Exam,

# 8. Applications of the integrals:

Applications in finding the area under simple curves especially lines, circles, parabolas, ellipses (in Standard form only)

Month- October Working Days-13

#### **Topics**

#### 9. 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,

Month- November Working Days-21

# **Topics**

Solution of linear differential equations of first order and first degree.

Revision

**Discussion on few sample Papers** 

PB-1.

Month- December Working Days-21

# **Topics**

PB-1 (Continued..)

Discussion on common errors.

PB-2.

Month- January Working Days-18

**Topics** 

**SSCE Practical Examination -2026** 



**SUBJECT - MATHEMATICS CORE** 

Month- February Working Days-21

**Topics** 

**SSCE Theory Paper Examination - 2026** 

Month- March Working Days-20

**Topics** 

SSCE Theory Paper Examination - 2026 (Continued...)

Theory paper : Full Marks : 80
Practical paper : Full Marks : 20

Practical paper comprised of :

• Record of at least 10 practicals.

- One Mathematics activity to be shown on the day of Mathematics activity.
- One practical to be shown on the day of the exam.

Viva

Total marks: 100



#### SUBJECT - MATHEMATICS CORE

#### **Lab Activity in Mathematics**

- To make a partition of a set of students of class XII on the basis of a relation defined as R = { (a, b) : a and b both have same birth year/birth day/birth month} and confirm it as an equivalence relation.
- 2. To make a partition of a set  $A \times A$  where  $A = \{x : x \text{ is the number appeared on the top face of a dia.} \} = \{1, 2, 3, 4, 5, 6\}$  based on a relation  $(a,b)R(c,d) \Rightarrow a+d=b+c$  means Sum of exteriors = Sum of interiors.
- 3. To draw the graph of  $Sin^{-1}x$  using the graph of sin x and demonstrate the concept of mirror reflection about the line y = x.
- 4. To sketch the graph if  $2^x$  and  $log_2 x$  and to examine that they are mirror images of each other.
- 5. To establish a relationship between **common logarithm (to the base 10)** and **natural logarithm (to the base e)** of a number n.
- 6. Formation of **code** through **matrix multiplication**.
- 7. To verity for a function f to be continuous at given point  $x=(x_0,y_0)$   $\Delta y = |f(x_0 + \Delta x) f(x_0)|$  is arbitrary small, provided  $\Delta x$  is sufficiently small.
- 8. To understand the concept of decreasing and increasing functions.
- 9. To understand the concepts of local maxima, local minima and point of inflection.
- 10. To understand the concept of **Absolute maxima and absolute minima** of a function in a given closed interval through a graph.
- 11. To evaluate the definite integral  $\int_{0}^{1} \sqrt{1-x^2} dx$  as the limit of the sum and verify it by actual integration.
- 12. To verity geometrically that  $a(\vec{a} + \vec{b}) = \alpha \vec{a} + \alpha \vec{b}$ . and  $(\alpha + \beta)\vec{a} = \alpha \vec{a} + \beta \vec{b}$ .
- 13. To explain the computation of conditional probability of a given event A when event B has already occurred through an example of throwing a pair of dice.
- 14. To find the time when the area of a rectangle of given dimension become maximum, if the length is decreasing and breadth is increasing at a given rate.



SUBJECT - PHYSICS

Month- April Working Days-16

#### **Topics**

#### **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 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).

Month- May Working Days-12

#### **Topics**

# 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.



SUBJECT - PHYSICS

Month-June

**Working Days-16** 

#### **Topics**

#### **QUALIFYING EXAMINATION**

**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.

**Month-July** 

**Working Days-24** 

#### **Topics**

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.



SUBJECT - PHYSICS

Month- August

**Working Days-16** 

#### **Topics**

# **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.

# Month- September

**Working Days-19** 

## **Topics**

# HALF YEARLY EXAMINATION 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).



SUBJECT - PHYSICS

Month- October Working Days-13

#### **Topics**

# 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 nth orbit, hydrogen line spectra (qualitative treatment only).

Month- November		Working Days-17
	Topics	

#### 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.

#### REVISION, PRE-BOARD - I

Month- December	Working Days-19
Topics	
REVISION PRE-BOARD - II	

SUBJECT - PHYSICS

#### <u>Lists of Experiments</u> <u>SECTION-A</u>

# **Experiments**

- 1.To determine the resistivity of two / three wires by plotting a graph for potential difference versus current.
- 2.To find the resistance of a given wire / standard resistor using a meter bridge.
- 3. To verify the laws of combination (series) of resistances using a meter bridge.

#### OR,

To verify the laws of combination (parallel) of resistances using a meter bridge.

4. To determine the resistance of a galvanometer by half-deflection method and to find its figure of merit.

#### **Activities**

- 1. To assemble the components of a given electrical circuit.
- 2.To study the variation in potential drop with the length of a wire for a steady current.
- 3.To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter, and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

#### SECTION-B

#### **Experiments**

- 1. To find the value of v for different values of u in the case of a concave mirror and to find the focal length.
- 2.To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v.
- 3.To determine the angle of minimum deviation for a given prism by plotting a graph between the angle of incidence and the angle of deviation.
- 4.To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.

#### **Activities**

- 1.To identify a diode, an LED, a resistor, and a capacitor from a mixed collection of such items.
- 2.To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
- 3.To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.



SUBJECT - CHEMISTRY

Month- April Working Days-16

#### **Topics**

#### **SOLUTION**

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.

#### **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, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea,) dry cell - electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.

Month- May Working Days-08

#### **Topics**

# **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.



SUBJECT - CHEMISTRY

Month-June

**Working Days-16** 

#### **Topics**

#### **CHEMICAL KINETICS**

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.

**Month-July** 

**Working Days-24** 

#### **Topics**

#### 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

Alcohols, Phenols and Ethers 10 Periods

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, electrophillic substitution reactions, uses of phenols.

Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.

19



#### SUBJECT - CHEMISTRY

**Month- August** 

Working Days-21

#### **Topics**

Aldehydes, Ketones and Carboxylic Acids 10 Periods

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.

#### **Month-September**

**Working Days-19** 

#### **Topics**

#### **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.

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<sub>2</sub> Cr<sub>2</sub> O<sub>7</sub> and KMnO4.

Lanthanoids - Electronic configuration, oxidation states, chemical reactivity and lanthanoid

contraction and its consequences.

Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids.



#### SUBJECT - CHEMISTRY

**Month-October** 

**Working Days-13** 

#### **Topics**

**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, importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).

**Month-November** 

Working Days-21

#### **Topics**

#### **FULL SYLLABUS REVISION**

#### **PRACTICALS**

#### **Evaluation Scheme for Examination Marks**

Volumetric Analysis 08
Salt Analysis 08
Content Based Experiment 06
Project Work 04
Class record and viva 04

Total 30

## PRACTICAL SYLLABUS

Micro-chemical methods are available for several of the practical experiments. Wherever possible, such techniques should be used.

#### A. Surface Chemistry

(a) Preparation of one lyophilic and one lyophobic sol

Lyophilic sol - starch, egg albumin and gum

Lyophobic sol - aluminium hydroxide, ferric hydroxide, arsenous sulphide.

- (b) Dialysis of sol-prepared in (a) above.
- (c) Study of the role of emulsifying agents in stabilizing the emulsion of different oils.



#### SUBJECT - CHEMISTRY

#### **B. Chemical Kinetics**

(a) Effect of concentration and temperature on the rate of reaction between Sodium Thiosulphate and  $\,$ 

Hydrochloric acid.

- (b) Study of reaction rates of any one of the following:
- (i) Reaction of Iodide ion with Hydrogen Peroxide at room temperature using different

concentration of lodide ions.

(ii) Reaction between Potassium Iodate, (KIO3) and Sodium Sulphite: (Na2SO3) using starch solution as indicator (clock reaction).

#### C. Thermochemistry

Any one of the following experiments

- i) Enthalpy of dissolution of Copper Sulphate or Potassium Nitrate.
- ii) Enthalpy of neutralization of strong acid (HCI) and strong base (NaOH).
- iii) Determination of enthaply change during interaction (Hydrogen bond formation) between Acetone and Chloroform.

#### D. Electrochemistry

Variation of cell potential in Zn/Zn2+|| Cu2+/Cu with change in concentration of electrolytes (CuSO4 or

ZnSO4) at room temperature.

#### E. Chromatography

i) Separation of pigments from extracts of leaves and flowers by paper chromatography and

determination of Rf values.

ii) Separation of constituents present in an inorganic mixture containing two cations only (constituents

having large difference in Rf values to be provided).

# F. Preparation of Inorganic Compounds

Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum. Preparation

of Potassium Ferric Oxalate.

#### G. Preparation of Organic Compounds

Preparation of any one of the following compounds

i) Acetanilide ii) Di –benzal Acetone iii) p-Nitroacetanilide iv) Aniline yellow or 2 - Naphthol Anilinedye.

#### H. Tests for the functional groups present in organic compounds:

Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.



SUBJECT - CHEMISTRY

- I. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.
- J. Determination of concentration/ molarity of KMnO4 solution by titrating it against a standard solution of:
- i) Oxalic acid,
- ii) Ferrous Ammonium Sulphate

(Students will be required to prepare standard solutions by weighing themselves).

#### K.Qualitative analysis

Determination of one cation and one anion in a given salt.

**Cation :** Pb2+, Cu2+ As3+, Al3+, Fe3+, Mn2+, Zn2+, Cu2+, Ni2+, Ca2+, Sr2+, Ba2+, Mg2+, NH4+

**Anions:**  $CO_3^{2}$ ,  $S^2$ ,  $SO_3^{2}$ ,  $NO_2$ ,  $SO_4^{2}$ ,  $C\ell$ , Br, I,  $PO_4^{3}$ ,  $C_2O_4^{2}$ ,  $CH_3COO$ ,  $NO_3$ 

(Note: Insoluble salts excluded)

#### **PROJECT**

Scientific investigations involving laboratory testing and collecting information from other sources A few suggested Projects.

Study of the presence of oxalate ions in guava fruit at different stages of ripening.

Study of quantity of casein present in different samples of milk.

Preparation of soybean milk and its comparison with the natural milk with respect to curd formation,

effect of temperature, etc.

Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature,

concentration, time, etc.)

Study of digestion of starch by salivary amylase and effect of pH and temperature on it.

Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, potato

juice, carrot juice, etc.

Extraction of essential oils present in Saunf (aniseed), Ajwain (carum), Illaichi (cardamom).

Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.

**Note:** Any other investigatory project, which involves about 10 periods of work, can be chosen with the approval of the teacher.

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SUBJECT - BIOLOGY

Month- April	Working Days-16
To	pics

#### Unit-6

#### **REPRODUCTION**

#### Ch.1. Sexual reproduction in flowering plants

Flower structure, development of male and female gametophyte, pollination – types, agencies and examples, outbreeding devices, pollen-pistil interaction, double fertilization, post fertilization development – endosperm and embryo, development of seed and formation of fruit, special modes – apomixes, pathernocarpy, polyembryony, significance of seed and fruit formation.

#### Ch. 2. Human reproduction

Male and female reproductive system, Microscopic anatomy of testis and ovary, gametogenesis-spermatogenesis and oogenesis, menstrual cycle, fertilization, embryo development upto blastocyst formation, implantation, pregnancy and placenta formation (Elementary idea), parturition (Elementary idea), lactation (Elementary idea).

Month- May		Working Days-08
	Topics	

#### Unit - 6 & 7

#### Ch. 3. Reproductive health

Need for reproductive health, prevention of sexually transmitted diseases, birth control – need and methods, contraception and MTP, Amniocentesis, Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT (Elementary idea for general awareness).

# **GENETICS & EVOLUTION**

#### Ch. 4. Principles of inheritance and variation

Mendelian inheritance, deviations from mendelism – Incomplete dominance, Co-dominance, Multiple allelism and inheritance of blood group, Pleiotrophy, Elementary idea of Polygenic inheritance, Chromosomal theory of inheritance, Chromosomes and genes, Sex determination – In humans, birds, 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 syndrome and Klinefilter's syndrome.



SUBJECT - BIOLOGY

Month- June Working Days-16

#### **Topics**

#### Unit-7

#### Ch. 5. 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, Human genome project, Rice genome project, DNA fingerprinting.

#### **QUALIFYING EXAMINATION**

Month-July

**Working Days-24** 

#### **Topics**

#### Unit - 7 & 9

#### Ch.6. 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; 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.

# **BIOTECHNOLOGY & ITS APPLICATION**

#### Ch. 9. Biotechnology - Principles & processes

Genetic engineering (Recombinant DNA technology).

#### Ch. 10. Biotechnology and its Application

Application of biotechnology in health and agriculture, Human insulin and vaccine production, Gene therapy, GMO – Bt crops, Transgenic animals, Biosafety issues, Biopiracy, Patents.

Month- August

**Working Days-21** 

#### **Topics**

# Unit-8

#### **BIOLOGY & HUMAN WELFARE**

# Ch. 7. Human Health & Diseases

Pathogens, parasites, causing human diseases (Malaria, dengue, chikungunya, Filaria, Ascariasis, Typhoid, Pneumonia, Common cold, Amoebiasis, Ringworm) and their control, basic concepts of immunology - vaccine, Cancer, HIV, AIDS; Adolescence - drug and alcohol abuse.

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**SYLLABUS - 2025-2026** 



SUBJECT - BIOLOGY

#### Ch. 8. Microbes in Human Welfare

Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as biocontrol agents and biofertilisers. Antibiotics; production and judicious use.

Month- September	Working Days-19
Topics	
REVISION & HALF YEARLY EXAMINATION	
Month- October	Working Days-13
Topics	

#### **Unit-10**

#### **ECOLOGY AND ENVIRONMENT**

## Ch.11. Organisms and Populations

Population interactions- mutualism, competition, predation, parasitism; Population attributes – growth, birth and death rate, age distribution.

#### Ch.12. Ecosystem

Ecosystem: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy.

Month- November	Working Days-21
	opics

# Ch.13. 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.

#### PRE-BOARD-I

Month- December	Working Days-24
Topics	;
PRE- BOARD – II	



#### SUBJECT - COMPUTER SCIENCE

Month- April		Working Days-16
	Tonico	

#### **Topics**

#### Revision of Python topics covered in Class XI.

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)

# Month- May Working Days-13

#### **Topics**

Exception Handling: Introduction, handling exceptions using tryexcept-finally blocks

Month- June Working Days-16

# **Topics**

## **QUALIFYING EXAMINATION**

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



#### SUBJECT - COMPUTER SCIENCE

Month-July

**Working Days-24** 

#### **Topics**

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.

# **Month- August**

**Working Days-21** 

#### **Topics**

**Database Management** 

Database concepts: introduction to database concepts and its need Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys

(candidate key, primary key, alternate key, foreign key)

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,

# **Month- September**

**Working Days-19** 

#### **Topics**

**REVISION & HALF YEARLY EXAMINATION** 

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**SYLLABUS - 2025-2026** 



#### SUBJECT - COMPUTER SCIENCE

#### **Month-October**

**Working Days-13** 

#### **Topics**

Database Management (Continued.....)

insert, delete, select,

operators (mathematical, relational and logical), aliasing, distinct clause, where

clause, in, between, order by, meaning of null, is null, is not null, like, update

command, delete command, aggregate functions (max, min, avg, sum, count),

group by, having clause, joins: cartesian product on two tables, equijoin and natural join

#### **Month-November**

**Working Days-21** 

#### **Topics**

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

Evolution of networking: introduction to computer networks, evolution of networking

(ARPANET, NSFNET, INTERNET)

Data communication terminologies: concept of communication, components of

data communication (sender,receiver, message, communication media,

protocols), measuring capacity of communication media (bandwidth, data

transfer rate), IP address, switching techniques (Circuit switching, Packet

switching)



#### SUBJECT - COMPUTER SCIENCE

Transmission media: Wired communication media (Twisted pair cable, Co-axial

cable, Fiber-optic cable), Wireless media (Radio waves, Micro waves, Infrared

waves)

Network devices (Modem, Ethernet card, RJ45, Repeater, Hub, Switch, Router,

Gateway, WIFI card)

Network topologies and Network types: types of networks (PAN, LAN, MAN,

WAN), networking topologies (Bus, Star, Tree)

Network protocol: HTTP, FTP, PPP, SMTP, TCP/IP, POP3, HTTPS, TELNET,

VoIP

Introduction to web services: WWW, Hyper Text Markup Language (HTML),

Extensible Markup Language (XML), domain names, URL, website, web

browser, web servers, web hosting

PRE-BOARD- I

Month- December		Working Days-21
	Topics	
PRE- BOARD- II		



CLASS - XII SUBJECT – I.P.

Month- April Working Days-16

Topics

Revision of Class XI: Programming Concept, List, Dictionary, NumPy

Month- May Working Days-08

#### **Topics**

#### UNIT - I: Data Handling with Pandas (DH1)

<u>Series</u>: Creation of Series from – ND-Array, Dictionary, Scalar value; Mathematical operations; Head and Tail functions; Selection, Indexing, and Slicing.

Month- June Working Days-16

#### **Topics**

<u>DataFrames</u>: Creationfrom–DictionaryofSeries, ListofDictionaries, Text /CSV files; Display; Iteration; Operations on rows and columns: Add, Select, Delete, Rename; Head and Tail functions; Indexing using Labels, Boolean Indexing;

Month- July Working Days-24

#### **Topics**

#### **Data Visualization:**

Purpose of plotting; Drawing and saving the following types of plots using MatPlotLib – Line plot, Bar graph, Histogram

Customizing plots: Adding Label, Title, and Legending plots.

**FileHandling:**Importing/ExportingDatabetweenCSVfilesandDataFra mes.

Month- August Working Days-21

# **Topics**

#### Unit2: Data base Query using SQL

**Revision of SQL of class XI:** Uses of Create, Constraint, Select, Where, Like, In, Between, Is, Not,

**SQL Queries:** Select, Update, Alter, etc. **Math functions**: POWER(),ROUND(),MOD().

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**SYLLABUS - 2025-2026** 



CLASS - XII SUBJECT – I.P.

<u>Text functions</u>: UCASE()/UPPER(), LCASE()/LOWER(), MID(),SUBSTRING()/SUBSTR(),LENGTH(),LEFT(),RIG

HT(),INSTR(),LTRIM(), RTRIM(),TRIM().

Date Functions: NOW(), DATE(), MONTH(),

MONTHNAME(), YEAR(), DAY(), DAYNAME()

**Aggregate Functions:** 

MAX(),MIN(),AVG(),SUM(),COUNT(); using COUNT(\*). Querying and manipulating data using **Group By**, **Having**,

Order By.

Working with two tables using **Equi-Join**.

#### **Month-September**

**Working Days-19** 

#### **Topics**

**Unit3: Introduction to Computer Networks** 

Introduction to networks, Types of networks: LAN, MAN, WAN. Network Devices: modem, hub, switch, repeater, router, gateway Network Topologies: Star, Bus, Tree, Mesh.

**Introduction to Internet:** URL, WWW, and its applications- Web, email, Chat, VoIP.

**Website:** Introduction, Difference between a website and webpage, Static v/s dynamic web page, web server and hosting of a website.

**Web Browsers:** Introduction, Common browsers, Browser settings, Add-ons and Plug-ins, Cookies.

#### **Month-October**

**Working Days-13** 

#### **Topics**

## **Unit4: Societal Impacts**

Digital footprint, Net and communication, Etiquettes, Data protection, Intellectual property rights (IPR), Plagiarism, Licensing and copyright, Free and open-source software (FOSS), Cybercrime and Cyber laws, Hacking, Phishing, Cyber-bullying, Overview of Indian ITAct.

**E-waste:** Hazards and Management.

Awareness about the health concerns related to the usage of technology.



CLASS - XII SUBJECT - I.P.

Month- November	Working Days-21
Topics	

# **Project Work:**

The class projectaims to create tangible and usefull Tapplications. The lear nermay identify a real-world problem by exploring the environment.

Month- December	Working Days-21
Topic	s

# **Project Execution/Case Studies:**

Students may visit shops/business places, communities, or other organizations in their localities and enquire about the functioning of the organization, and how data are generated, stored, and managed.

Month- January	Working Days-18
Тор	pics
PB Exam	
Month- February	Working Days-21
Тор	pics
Exams	
Month- March	Working Days-20
Тор	pics
Exams	



SUBJECT - ACCOUNTANCY

Month- April

**Working Days-19** 

#### **Topics**

Part A: Accounting for Partnership Firms and Companies

Unit 1: Accounting for Partnership Firms

Partnership: features, partnership deed. Provisions of the Indian Partnership Act 1932 in 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 (relating to interest on capital, interest on drawings, salary and profit sharing ratio). Goodwill: nature, factors affecting and methods of valuation – average profit, super profit and capitalization.

Accounting for Partnership firms – Reconstitution and Dissolution.

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.

Month- May

**Working Days-13** 

#### **Topics**

<u>Admission of a partner</u>: effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill (as per AS 26), treatment for revaluation of assets and reassessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet.

**Month-June** 

Working Days-16

#### **Topics**

#### **QUALIFYING EXAMINATION**

Retirement and Death of a partner:

Effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill (as per AS 26), 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

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**SYLLABUS - 2025-2026** 



SUBJECT - ACCOUNTANCY

Month- April

Working Days-19

#### **Topics**

Part A: Accounting for Partnership Firms and Companies

Unit 1: Accounting for Partnership Firms

Partnership: features, partnership deed. Provisions of the Indian Partnership Act 1932 in 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 (relating to interest on capital, interest on drawings, salary and profit sharing ratio). Goodwill: nature, factors affecting and methods of valuation – average profit, super profit and capitalization.

Accounting for Partnership firms – Reconstitution and Dissolution.

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.

Month- May

**Working Days-13** 

#### **Topics**

<u>Admission of a partner</u>: effect of admission of a partner on change in the profit sharing ratio, treatment of goodwill (as per AS 26), treatment for revaluation of assets and reassessment of liabilities, treatment of reserves and accumulated profits, adjustment of capital accounts and preparation of balance sheet.

Month-June

**Working Days-16** 

#### **Topics**

#### **QUALIFYING EXAMINATION**

Retirement and Death of a partner:

Effect of retirement / death of a partner on change in profit sharing ratio, treatment of goodwill (as per AS 26), 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

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SUBJECT - ACCOUNTANCY

Month-July

Working Days-24

#### **Topics**

(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/her Executor's Account.

Dissolution of 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)]

Note:

- If the realized value of tangible assets is not given, it should be considered as realized at book value itself.
- (ii) If the realized value of intangible assets is not given, it should be considered as nil (zero value).
- (iii) In case, the realization expenses are borne by a partner, clear indication should be given regarding the payment thereof. PART –B: ANALYSIS OF FINANCIAL STATEMENTS

**UNIT 3: Analysis of Financial Statements** 

Financial Statements of a Company: Statement of Profit &Loss and Balance Sheet in the prescribed form with major headings and sub headings (as per Schedule III of the Companies Act 2013).

Note: Exceptional Items, Extraordinary Items and Profit (Loss) from discontinued operations are excluded.

## **Month- August**

Working Days-21

#### **Topics**

## **UNIT 2. ACCOUNTING FOR COMPANIES**

Accounting for Share Capital

Share and Share Capital: nature and types.

Accounting for share capital: Issue and allotment of equity shares, Public subscription of shares - over subscription and under subscription of shares; issue at par and at premium, calls in advance and arrears, 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.



#### SUBJECT - ACCOUNTANCY

[Part B: Unit 3 - Continuation] Financial Statement Analysis:

Objectives, Importance and Limitations.

Tools for Financial Statement Analysis: Comparative Statements, Common Size Statements, Cash flow analysis, Ratio analysis.

#### Month- September

**Working Days-19** 

#### **Topics**

## **HALF YEARLY EXAMINATIONS**

[PART: B Unit 3 - Continuation]

Accounting Ratios: Meaning, Objectives, Advantages, Classification and Computation.

Liquidity Ratios: Current Ratio and Quick Ratio.

Solvency Ratios: Debt to Equity Ratio, Total Assets to Debt Ratio, Proprietary Ratio and Interest Coverage Ratio, Debt to Capital Employed Ratio.

Activity Ratios: Inventory Turnover Ratio, Trade Receivables Turnover Ratio, Trade Payables Turnover Ratio, Fixed Assets Turnover ratio, Net assets turnover Ratio and Working Capital Turnover Ratio.

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

Note: Net Profit ratio is to be calculated on the basis of Profit before and after tax.

## **Month-October**

**Working Days-13** 

#### **Topics**

## PROJECT WORK: SPECIFIC PROJECT

(To be submitted after Pooja Vacation)

- 1. Comparative and Common Size Financial Statements
- 2. Accounting Ratios

## [PARTA: UNIT 2 - CONTINUATION]

#### Accounting for 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.

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## SUBJECT - ACCOUNTANCY

**Month-November** 

Working Days-21

## **Topics**

PART: B:

**UNIT 4: CASH FLOW STATEMENT** 

Meaning, Objectives, Benefits, Cash and Cash Equivalents, Classification of Activities and Preparation ( as per AS 3 (Revised) (Indirect Method only)

Note:

- (i) Adjustments relating to depreciation and amortization, profit or loss on sale of assets including investments, dividend (both final and interim) and tax.
- (ii) Bank overdraft and cash credit to be treated as short term borrowings.
- (iii) Current Investments to be taken as Marketable Securities unless otherwise specified.

## PRE-BOARD I EXAMINATIONS

Month- December	Working Days-21
Topics	
REVISION &	
PRE-BOARD II EXAMINATIONS	

Month- January Working Days-18

Topics

#### **BOARD PRACTICAL EXAMINATIONS**

Note: Previous year's Proposed Dividend to be given effect, as prescribed in AS-4, Events occurring after the Balance Sheet date. Current Year's Proposed Dividend will be accounted for in the next year after it is declared by the Shareholders.



CLASS - XII SUBJECT – BST

Month- April Working Days-19

#### **Topics**

# 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, Organising, Staffing, Directing and Controlling. Coordination-concept and importance and characteristics of coordination.

#### **Unit-3 Business Environment**

Concept and Importance, Dimensions of Business Environment: Economic, Social, Technological, Political and Legal. Demonetization-Concepts and Features.

#### **Unit-4 Marketing**

Marketing – Concept, Features of Marketing, Marketing functions, and philosophies;

Marketing Mix - Concept and Elements;

Month- May Working Days-08

#### **Topics**

Product - Concept, Branding, Labeling, and Packaging;

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.

Month- June Working Days-16

#### **Topics**

## **QUALIFYING EXAMINATIONUnit-4 Planning**

Planning: Concept, importance, and limitation;

Planning process;

Single-use and Standing Plans. Objectives, Strategy, Policy, Procedure, Method, Rule, Budget and Programme.

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SUBJECT - BST

## **Unit-5 Organising**

Organising: Concept and importance;

Organising Process;

Structure of organisation-functional and divisional concept.

#### Month-July

**Working Days-24** 

#### **Topics**

Formal and informal organization - Advantages and

Disadvantages, Concept;

Delegation: concept, elements, and importance;

Decentralization: concept and importance.

Difference between Delegation and Decentralisation.

## Unit 6: Staffing

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

#### **Month- August**

**Working Days-21** 

#### **Topics**

## **Unit 7: Directing**

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 laissezfaire:

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 control;

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CLASS - XII SUBJECT – BST

Month- September Working Days-19

**Topics** 

Revision, Half Yearly Examination POOJA VACATION BEGINS

Month- October Working Days-13

**Topics** 

Part B: Business Finance and Marketing

**Unit 9: Financial Management** 

Financial Management: Concept, role and objectives;

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

Financial Planning - concept and importance;

## POOJA VACATION PROJECT WORK AND ASSIGNMENT

Capital Structure - concept and factors affecting capital structure;

Fixed and Working Capital - Concept and factors affecting their requirements.

Month- November Working Days-21

## Topics

#### **Unit 10: Financial Markets**

Financial Markets: Concept; Money Market: Concept;

Capital market and its types (primary and secondary);

Stock Exchange - Functions and trading procedure;

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

#### **Unit 12: Consumer Protection**

Consumer Protection: Concept and importance;

The Consumer Protection Act, 2019;

Meaning of Consumer;

Rights and Responsibilities of Consumers. Who can file a complaint? Redressal.

Machinery and remedies available.

Consumer awareness - Role of consumer organizations and Non-Governmental Organizations (NGOs).

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SUBJECT - BST

Month- Dec & Jan Working Days-.....

Topics

Unit 13: Project Work Revision and Pre-Board Examination



SUBJECT - ECONOMICS

Month- April Working Days-16

Topics

#### **MACRO**

**Topic:** meaning, basic concepts of consumption goods, capital goods, intermediate goods, stocks flows, gross investment depreciation **UNIT-1:** National income and Related aggregates (conted..)

**Topic:** Circular flow of income

Topic: aggregate relatives, GNP, GDP, NNP & NDP both in market

price and factor cost

UNIT-1: National income and Related aggregates (conted..)

**Topics**: Methods of calculating national income

Topics: Income Method, Expenditure Method & Value Added Method

GDP and welfare, nominal and real GDP

#### **INDIAN ECONOMICS**

**UNIT-1: DEVELOPMENT EXPERIENCE(1947-90)** 

**Topic:** Indian economy on the eve of Independence: National income, Agriculture sector, Industrial sector, Trade, Demography, Infrastructure

Month- May Working Days-08

#### **Topics**

## **INDIAN ECONOMICS**

UNIT-1: DEVELOPMENT EXPERIENCE(1947-90) (CONTED...)

**Topic:** Indian economy between 1950-1990: goals of planning, Agriculture sector reform, Green revolution, Industrial sector IPR 1956, Trade, Conclusion

## **QUALIFYING EXAM**

Month- June Working Days-16

## **Topics**

## **MACRO**

UNIT-2: Money and banking: Meaning and Supply of money

Topic: Commercial bank and Credit creation



SUBJECT - ECONOMICS

Month- July

**Working Days-24** 

#### **Topics**

#### **MACRO**

Topic: Central bank, functions, Credit control measures

**Topic:** Income determination: Aggregate demand and its components, Consumption function, Saving function MPC, MPS, APC, APS, Investment, Equilibrium

**Month- August** 

**Working Days-21** 

## **Topics**

## **INDIAN ECONOMICS**

**Topic :** Economic reform since 1991:- Need for reform, Liberalisation measures, Privatisation measures, Globalization, WTO, critical appraisals concept of demonetization and GST

**UNIT 2: CURRENT CHALLENGES FACING INDIAN ECONOMY** 

**HUMAN CAPITAL FORMATION:** Sources, Human capital and Human development, Education and health sector in India

**MACRO:** INCOME DETERMINATION CONTED...: Multiplier, working of multiplier, Inflationary and deflationary gap, measures to control it **INDIAN ECONOMICS** 

**RURAL DEVELOPMENT**: key Issues, Rural credit, Agriculture marketing, Agriculture diversification, Organic farming

**Employment**: Types of employment, formal and informal, casualisation and in formalisation of workforce, recent trends of unemployment, problem and policy measures. HALF YEARLY EXAM

**Month-September** 

**Working Days-19** 

## **Topics**

**GOVERNMENT BUDGET AND THE ECONOMY**: Meaning and objectives, Component of revenue and capital budget,



## **SUBJECT - ECONOMICS**

Month- October	Working Days-13
Topics	

## **MACRO ECONOMICS**

Exchange rate Systems: Fixed, Flexible and Managed floating rate system, functions of exchange market, balance of payment: components, sides and items in BOP.

**Month-November Working Days-21** 

## **Topics**

INDIAN ECONOMICS: ENVIRONMENT AND SUSTAINABLE **DEVELOPMENT:** MEANING, resources, effects and measures INDIA, PAKISTAN, & CHINA: Issues growth, population, sectoral development, other development indicators Pre-Board 1

Working Days-24 **Month- December Topics** Pre-Board 2 **Month-January Working Days-15 Topics** 



Month- April

SUBJECT - HISTORY

Working Days-16

Topics	
<ul> <li>Mahatma Gandhi and the National Movem Civil Disobedience and Beyond.</li> <li>Bricks, Beads and Bones: The Harappa Ci</li> <li>Kings, Farmers and Towns Early States and Economies (c.600 BCE600)</li> <li>[Kingship, Caste and class Early Societies (c. 600 BCE600 CE]</li> </ul>	vilisation
Month- May	Working Days-13
Topics	
Thinkers, Beliefs, and Buildings [Cultural Developments (c. 600 BCE600 CE]	
Month- June	Working Days-16
Topics	
QUALIFYING EXAMINATIONS	
Month- July	Working Days-24
Topics	
<ul> <li>Through the Eyes of Travellers Perceptions of Society (c. tenth to seventee</li> <li>Bhakti-Sufi Traditions: Changes in Religious Devotional Texts (c. eighth to eighteenth ce</li> </ul>	s Beliefs and nturies)

• An Imperial Capital – Vijayanagar (c. fourteenth to sixteenth

centuries)



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Month- August

SUBJECT - HISTORY

**SYLLABUS - 2025-2026** 

Working Days-21

Topics	
<ul> <li>Peasants, zamindars and the States Agrari Mughal Empire (c. sixteenth - seventeenth centuries)</li> <li>Colonialism and The Countryside Exploring Official Archives</li> </ul>	an Society and the
Month- September	Working Days-19
Topics	
<ul><li>Half yearly</li><li>Rebels and Raj</li><li>1857 Revolt and its Representations</li></ul>	
Month- October	Working Days-13
Topics	
<ul> <li>Framing of the Constitution The Beginning of a New Era,</li> <li>Map Practice</li> </ul>	
Month- November	Working Days-21
Topics	
• PROJECT WORK • PB-1	
Month- December	Working Days-24
Topics	
PB-1 Revision	
Month- January	Working Days-15
Topics	
Revision	



SUBJECT - POL. SCIENCE

UNIT PART-A: CONTEMPORARY WORLD POLITICS  1. The End of Bipolarity 2. New Centers of Power 3. Contemporary South Asia 4. United Nations and it's organization 5. Security in the Contemporary World 6. Environment and Natural Resources 7. Globalization	8 6 6 5 5 5 40
PART-B: POLITICS IN INDIA SINCE INDEPENDE  1. Challenge of Nation Building 2. Planned Development 3. India's Foreign Policy 4. Parties and Party System in India 5. Democratic Resurgence 6. Regional Aspirations 7. Indian Politics- Recent Trends and Development TOTAL	4 8 8 6 6 6 40

Month- April		Working Days-16
	Topics	

## **Challenges of Nation Building**

The starting and backdrop with some context of the Cold War.

## **Challenges of Nation-Building**

Nehru's approach to nation-building; Legacy of partition: challenge of 'refugee' resettlement, the Kashmir problem.

## The End of Bipolarity

New entities in world politics: Russia, Balkan states and Central Asian states. Introduction of democratic politics and capitalism in post-communist regimes. India's relations with Russia and other post-communist countries.



SUBJECT - POL. SCIENCE

Month- May

**Working Days-08** 

## **Topics**

**Planned Development** Changing nature of India's Economic Development Planning Commission and Five Year Plans, National Development Council, NITIAayog.

Month-June

**Working Days-16** 

#### **Topics**

**New Centres of Power Organizations**: European Union, ASEAN, SAARC, BRICS. Nations: Russia, China, Israel, India, Japan and South Korea.

Discussion about Project work and synopsis making

**Month-July** 

**Working Days-16** 

## **Topics**

**India's Foreign Policy** Principles of Foreign Policy; India's Changing Relations with Other Nations: US, Russia, China, Israel; India's Relations with its Neighbours: Pakistan, Bangladesh, Bhutan, Nepal, Sri Lanka and Myanmar; India's Nuclear Programme.

**Contemporary South Asia** Conflicts and efforts for Peace Democratization in South Asia: Pakistan, Nepal, Bangladesh, Sri Lanka, Maldives.

**Month- August** 

**Working Days-21** 

#### **Topics**

**United Nations and its Organizations** Principal Organs, Key Agencies: UNESCO, UNICEF, WHO, ILO, Security Council and the Need for its Expansion.

**Security in Contemporary World** Security: Meaning and Type; New forms of threat to Security etc.



SUBJECT - POL. SCIENCE

Month-September

**Working Days-19** 

#### **Topics**

**Parties and Party System in India** One Party Dominance, Bi-Party System, Multi-Party Coalition System.

**Half Yearly Examination** 

Month- October

**Working Days-13** 

#### **Topics**

**Democratic Resurgence** Jaya Prakash Narayan and Total Revolution, Ram Manohar Lohia and Socialism, Pandit Deendayal Upadhyaya and Integral Humanism, National Emergency, Democratic Upsurges – Participation of the Adults, Backwards and Youth.

**Environment and Natural Resources** Environmental Movements, Global Warming and Climate Change, Conservation of Natural Resources.

Globalization: Meaning, Manifestation and Debates.

Month- November

**Working Days-21** 

#### **Topics**

**Regional Aspirations Rise of regional parties**. Punjab Crisis. The Kashmir Issue, Movements for Autonomy.

Indian Politics: Recent Trends and Development Era of Coalitions, National Front, United Front, United Progressive Alliance (UPA) – I & II, National Democratic Alliance (NDA) I, II, III & IV, Issues of Development and Governance.

**Month-December** 

**Working Days-21** 

## **Topics**

## Pre-Board

2) Project Work: 20 Marks

Note: Topics from the pdf extra topics to be covered with the syllabus side by side.

New edition NCERT for Political Science Books to be purchased.



**Month-April** 

SUBJECT - SOCIOLOGY

**Working Days-19** 

**Working Days-16** 

Topics	
1. Introducing Indian Society (Non evaluative)     Colonialism     Nationalism     Class and Community     2. Demographic Structure and Indian Society     Theories and conception demography     Rural - Urban Linkages and divisions     3. Social institutions: Continuity and change     Family and kinship     The Caste System     Tribal Society	
Month- May	Working Days-13
Topics	
<ul> <li>5. Pattern of Social Inequality and Exclusion</li> <li>Caste, Prejudice, Scheduled castes and other Ba</li> </ul>	ackward Classes

## The struggle of the Differently Abled.

## **Topics**

## 6. Challenges of Cultural Diversity

Marginalisation of Tribal CommunitiesThe struggle for women's equality

- Cultural Communities and the Nation State
- Problems of communalism, Regionalism and casteism
- The Nation State, religion related issues, and identities
- Communalism, Secularism and the Nation State.
- State and Civil Society
- 7. Suggestions for Project Work (Non Evaluative)

Month-June



SUBJECT - SOCIOLOGY

Month- July

**Working Days-24** 

## **Topics**

## **Changes and Development in Indian Society**

## 8. Structural Change

- Colonialism
- Industrialisation
- Urbanisation

## 9. Cultural Change

- Modernisation
- Westernisation
- Sanskritisation
- Secularisation
- · Social Reform Movements and Laws

## **Month- August**

Working Days-21

## **Topics**

## 11. Changes and Development in Rural Indian Society

- Land Reforms, Green Revolution and Emerging Agrarian Society
- · Agrarian Structure: Caste and Class in Rural India
- Land Reforms
- Green Revolution and its social consequences
- Transformation in Rural Society.
- · Globalisation, Liberalisation and Rural Society

## Month- September

**Working Days-19** 

## **Topics**

## 12. Changes and Development in Industrial Society

- From planned Industrialization to Liberalization.
- Getting a job
- Work Processes



SUBJECT - SOCIOLOGY

Month- October	Working Days-1	13
	Topics	

#### ТОР

- 15. Social MovementsClassification of Social Movements
- Class based movements: workers and peasants.
- Caste based movements : Dalit movements Backward caste movement
- Castes, Trends in Upper Caste Reformers
- Women's Movement in Independent India
- Tribal Movements
- Environmental Movements

Month- November	Working Days-21
Topics	
Revision/Pre-Board- 1	



SUBJECT - GEOGRAPHY

Month- April

Topics

B1 Human Geography: Nature and Scope

• Nature of Human Geography

• Fields and Sub-fields of Human Geography
B1 The World Population: Distribution, Density and Growth

• Patterns of population distribution in the world

• Density of population

• Factors influencing the distribution of population

- Population growth
- Demographic transition
- Population control measures

## B2 Population: Distribution, Density, Growth and Composition

- Distribution of population
- · Density of population
- · Growth of population
- · Regional variation population growth
- Population composition

#### **B2 Human Settlements**

- Types of rural settlement
- Urban settlements
- Urbanisation in India

#### **B3** Data – Its Source and Compilation

- · What is data
- Need of data
- · Presentation of Data
- · Sources of data
- · Tabulation and classification of data
- · Data compilation and presentation
- · Processing of data
- · Grouping of data
- Process of classification

Month- May	Working Days-13
Topics	
B2 Land Resources and Agriculture	
Land use categories	

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#### **CLASS - XII**

#### SUBJECT - GEOGRAPHY

- · Land-use changes in India
- Common property resources
- · Agricultural land use in India
- · Cropping seasons in India
- Types of farming
- Foodgrains
- Oilseeds
- Fibre crops
- · Other crops
- · Agricultural development in India
- · Problems of Indian agriculture

## **B2 Water Resources**

- Water resources of India
- Deterioration of water quality
- Watershed management
- Rainwater harvesting

#### Month-June

**Working Days-16** 

#### **Topics**

# Qualifying Examination B1 Human Development

- Growth and development
- The four pillars of human development
- Approaches to human development
- Measuring human development
- International comparisons

## **Month-July**

**Working Days-24** 

## **Topics**

## **B1 Primary Activities**

- · Hunting and gathering
- Pastoralism
- Agriculture
- Mining

## **B1 Secondary Activities**

- Manufacturing
- Classification of manufacturing industries
- · Concept of high technology industry

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#### **CLASS - XII**

#### SUBJECT - GEOGRAPHY

## **B2 Mineral and Energy Resources**

- Types of mineral resources
- · Distribution of minerals in India
- Ferrous minerals
- Non-ferrous minerals
- · Non-metallic minerals
- · Energy resources
- Conservation of Mineral resources

## **B3 DataProcessing**

- Measures of central tendency
- · Comparison of Mean, Median and Mode

## **Month- August**

**Working Days-21** 

#### **Topics**

## **B1 Tertiary and Quaternary Activities**

- Types of tertiary activities
- · People engaged in tertiary activities
- Some selected examples
- Quaternary activities
- Quinary activities
- The digital divide

## **B2 Planning and Sustainable Development in Indian Context**

- Target Area Planning
- Hill Area Development Programme
- Drought Prone Area Programme
- Sustainable Development

## **B2** Transport and Communication

- Land transport
- Water transport
- Air transportation
- Oil and gas pipelines
- Communication networks

## **B3 Graphical Representation of Data**

- · Representation of data
- · General rules for drawing graphs, diagrams and maps
- Construction of diagrams
- Classification of thematic maps based on method of construction



SUBJECT - GEOGRAPHY

**Month-September** 

**Working Days-19** 

#### **Topics**

## Revision & Half Yearly Examination B1 Transport and Communication

- Transport
- Modes of transportation
- Communications

Month-October

**Working Days-13** 

#### **Topics**

#### **B1** International trade

- · History of international trade
- Gateways of international trade

#### **B3 Spatial Information Technology**

- What is Spatial Information Technology
- · What is GIS
- · Advantages of GIS over manual methods
- Components of GIS
- · Spatial data formats
- Sequence of GIS activities

## **Month- November**

**Working Days-21** 

#### **Topics**

## **B2** International trade

- · Changing pattern of the composition of India's exports
- Changing pattern of the composition of India's import
- Direction of trade
- · Sea ports as gateways of international trade
- Airports

## **B2** Geographical Perspective on Selected Issues and Problems

- Environmental pollution
- Urban waste disposal
- Rural-urban migration
- Problems of slums
- Land degradation

#### Revision &

#### Pre Board- I

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SUBJECT - GEOGRAPHY

Month- December/January

Working Days-24+15

## **Topics**

Pre Board - I Pre Board - II& Revision

**B1 – Fundamentals of Human Geography - NCERT** 

B2 – India - People and Economy - NCERT

**B3** – Practical Work in Geography Part II – NCERT



SUBJECT - PSYCHOLOGY

Month- April Working Days-16

#### **Topics**

## **Variations in Psychological Attributes**

The topics in this unit are:

- 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 1- Ravens' standard progressive matrices / emotional stability test

#### **Self and Personality**

The topics in this unit are:

- Introduction
- Self and Personality
- · Concept of Self
- · Cognitive and Behavioural aspects of Self
- Culture and Self

Month- May

**Working Days-13** 

## **Topics**

## **Meeting Life Challenges**

The topics in this unit are:

- Introduction
- Nature, Types and Sources of Stress
- Effects of Stress on Psychological Functioning and Health
  - Stress and Health
  - General Adaptation Syndrome

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## **CLASS - XII**

#### SUBJECT - PSYCHOLOGY

- Stress and Immune System
- Lifestyle
- Coping with Stress
  - Stress Management Techniques
- Promoting Positive Health and Well-being
  - Life Skills
  - Positive Health

## Practical 2- Comprehensive anxiety scale

## Month- June

**Working Days-16** 

## **Topics**

# Qualifying Examination Self and Personality (Cont.)

- 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 3- Maudsley Personality inventory (MPI)**

## Month-July

Working Days-24

## **Topics**

#### **Psychological Disorders**

The topics in this unit are:

- Introduction
- · Concepts of Abnormality and Psychological Disorders
  - Historical Background
- · Classification of Psychological Disorders
- Factors Underlying Abnormal Behaviour
- Major Psychological Disorders

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#### **CLASS - XII**

#### SUBJECT - PSYCHOLOGY

- 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 Disorders

#### Practical 4 - SCAT

## **Month- August**

Working Days-21

#### **Topics**

## **Therapeutic Approaches**

The topics in this unit are:

- 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 III

## **Attitude and Social Cognition**

The topics in this unit are:

- 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

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SUBJECT - PSYCHOLOGY

Month- September

**Working Days-19** 

**Topics** 

# HALF YEARLY EXAMINATION Case Study Introduction

**Month-October** 

Working Days-13

## **Topics**

## **Social Influence and Group Processes**

The topics in this unit are:

- Introduction
- Nature and Formation of Groups
- Type of Groups
- Influence of Group on Individual Behaviour
  - Social Loafing
  - Group Polarisation

## **Practical 5- AISS**

Month- November	Working Days-21	
Topics		
Case Study on one psychological disorder. Revision		
Month- December	Working Days-24	
Topics		
Revision Pre boards		



SUBJECT - PHE

## Month-April

**Working Days-16** 

#### **Topics**

## Unit - 1: MANAGEMENT OF SPORTING EVENT

- 1. Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling)
- 2. Various Committees & their Responsibilities (pre; during & post)
- 3. Fixtures and their Procedures Knock-Out (Bye & Seeding) & League (Staircase, Cyclic, Tabular method) and Combination tournaments.
- 4. Intramural & Extramural tournaments Meaning, Objectives & Its Significance
- 5. Community sports program (Sports Day, Health Run, Run for Fun, Run for Specific Cause & Run for Unity)

#### Unit - 2: CHILDREN AND WOMEN IN SPORTS

- 1. Exercise guidelines of WHO for different age groups.
- 2. Common postural deformities-knock knees, flat foot, round shoulders, Lordosis, Kyphosis, Scoliosis, and bow legs and their respective corrective measures.
- 3. Women's participation in Sports Physical, Psychological, and social benefits.
- 4. Special consideration (menarche and menstrual dysfunction)
- 5. Female athlete triad (osteoporosis, amenorrhea, eating disorders.

## Month- May

Working Days-13

#### **Topics**

## Unit - 5: SPORTS AND NUTRITION

- 1. Concept of balanced diet and nutrition
- 2. Macro and Micro Nutrients: Food sources & functions
- 3. Nutritive & Non-Nutritive Components of Diet
- 4. Eating for Weight control—A Healthy Weight, The Pitfalls of Dieting, Food Intolerance, and Food Myths
- 5. Importance of Diet in Sports-Pre, During and Post competition Requirements



SUBJECT - PHE

Month-June

**Working Days-16** 

#### **Topics**

## Unit-6: TEST AND MEASUREMENT IN SPORTS

Fitness Test – SAI Khelo India Fitness Test in school: Age group 5-8 years/ 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 (Partial Abdominal Curl Up, PushUps for boys, Modified Push-Ups for girls)

- 2. Measurement of CardioVascular Fitness Harvard Step Test Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1-1.5 Min after Exercise.
- 3. Computing Basal Metabolic Rate (BMR)
- 4. Rikli& Jones Senior Citizen Fitness Test
- Chair Stand Test for lower body strength
- Arm Curl Test for upper body strength
- Chair Sit & Reach Test for lower body flexibility
- Back Scratch Test for upper body flexibility
- · Eight Foot Up & Go Test for agility
- Six-Minute Walk Test for Aerobic Endurance
- 5. Johnsen Methney Test of Motor Educability (Front Roll, Roll, JumpingHalf-Turn, Jumping fullturn.

Month-July

**Working Days-24** 

## **Topics**

## Unit - 8: BIOMECHANICS AND SPORTS

- 1. Newton's Law of Motion & its application in sports
- 2. Types of Levers and their application in Sports.
- 3. Equilibrium Dynamic & Static and Centre of Gravity and its application in sports
- 4. Friction & Sports
- 5. Projectile in Sports

# Unit - 3 : YOGA AS PREVENTIVE MEASURE FOR LIFESTYLE DISEASE

1. Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasana, Halasana, Pachimottansana, Ardha — Matsyendrasana, Dhanurasana, Ushtrasana, Suryabedhan pranayama.

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SUBJECT - PHE

- 2. Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana, Bhujang asana, Shalabhasana, Dhanurasana, Suptavajarasana, Paschimottanasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati.
- 3. Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasan -a, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalbhati, GomukhasanaMatsyaasana, Anuloma-Viloma.
- 4. Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakransan, Uttanpadasana, ArdhaHalasana, Sarala Matyasana, Gomukhasana, UttanMandukasan-a, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadishodhanapranayam, Sitlipranayam.
- 5. Back Pain and Arthritis: Procedure, Benefits & Contraindications of Tadasan, Urdhawahastootansana, Ardh-Chakrasana, Ushtrasana, Vakrasana, Sarala Maysyendrsana, Bhujandgasana, Gomukhasana, Bhadrasana, Makarasana, NadiShodhana pranayama.

**Month- August** 

Working Days-21

#### **Topics**

# Unit - 4 : PHYSICAL EDUCATION AND SPORTS FOR CWSN (CHILDREN WITH SPECIAL NEEDS)

- 1. Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)
- 2. Concept of Classification and Divisioning in Sports.
- 3. Concept of Inclusion in sports, its need, and Implementation;
- 4. Advantages of Physical Activities for children with special needs.
- 5. Strategies to make Physical Activities assessable for children with special needs.

Month- September

**Working Days-10** 

## **Topics**

## Unit - 7: PHYSIOLOGY AND INJURIES IN SPORTS

- 1. Physiological factors determining components of physical fitness
- 2. Effect of exercise on the Muscular System
- 3. Effect of exercise on the Cardio-Respiratory System
- 4. Physiological changes due to aging

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SUBJECT - PHE

5. Sports injuries: Classification (Soft Tissue Injuries -Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted)

Month- October

**Working Days-13** 

#### **Topics**

#### Unit - 9: PSYCHOLOGY AND SPORTS

- 1. Personality; its definition & types (Jung Classification & Big Five Theory)
- 2. Motivation, its type & techniques.
- 3. Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it
- 4. Meaning, Concept & Types of Aggressions in Sports
- 5. Psychological Attributes in Sports Self-Esteem, Mental Imagery, Self Talk, Goal Setting

#### **Month-November**

**Working Days-21** 

## **Topics**

#### **Unit-10: TRAINING IN SPORTS**

- 1. Concept of Talent Identification and Talent Development in Sports
- 2. Introduction to Sports Training Cycle Micro, Meso, Macro Cycle.
- 3. Types & Methods to Develop Strength, Endurance, and Speed.
- 4. Types & Methods to Develop Flexibility and Coordinative Ability.
- 5. Circuit Training Introduction & its importance



SUBJECT - FINE ART- GRAPHICS

Month- April Working Days-19

#### **Topics**

#### THEORY:

Six Limbs of Indian Painting & Fundamentals of Visual Arts (Elements & Principles).

Abrief introduction to Indian Miniature Painting and Schools:-

Pal, Jain & Central Indian paintings. Development of Indian Art.

The Rajasthani School of Miniature Painting: -

- (1) Origin and Development,
- (2) Main features of the Rajasthani School.
- (3) Sub-Schools- Mewar, Bundi, Jodhpur, Bikaner, Kishangarh and Jaipur.
- (4) Study of different Rajasthani Paintings:-
- (a) Maru-Ragini by Sahibdin of Mewar,
- (b) Chaugan Players by Dana of Jodhpur,
- (c) Krishna on swing by Nuruddin of Bikaner,
- (d) Radha (Bani-Thani) by Nihal Chand of Kishangarh,
- (e) Bharat Meets Rama at Chitrakut by Guman of Jaipur

#### **PRACTICAL:**

Introduction of different Graphics medium and Serigraphy / Etching:- History, Method materials quality and safety. Relation between water and oil mediums. How Graphics (Printmaking) is different from other mediums. Why it is called Industrial art? How did it developed with Industrial growth?

Object and Human figure Drawings. Creating layouts for Graphics using different lines, dots, circles, geometrical patterns and textures....

Serigraphy:- The history of stencils and silk screen, Methods and materials. The use and maintenance of the squeeze. Sealing registration for colour work and preparation for printing. Use of water and oil mediums in printing technology. Oils & Solvents for cleaning, use and characteristics of printing inks.

Print quality- no spot anywhere even backside of print, never retouch brush in print, print should be neat and clean.

Writing Artists' Proof (A/P), medium, subject & name in print. Finishing mounting and the print.



#### **CLASS - XII**

#### **SUBJECT - FINE ART- GRAPHICS**

Subjects of composition:- Black & White imaginative composition using different textures. Use of different types of textures in composition, Decorative design, Pattern Making; Flower vase; Affairs of family, friends and Daily life; Affairs of family professionals. And submit Theory Assignment Practical Progress Report.

#### Month- May+June

**Working Days-24** 

#### **Topics**

## THEORY:

#### The Pahari School of Miniature Painting: -

- (1) Origin and development, (2) Main features of the Pahari School,
- (3) Sub-Schools-Basohli, Guler, Kangra, Chamba and Garhwal,
- (4) Study of different Pahari Paintings:-
- (a) Krishna with Gopies by Manaku from Basohli,
- (b) Nand Yashoda and Krishna with Kinsmen going to Vrindavana by Nainsukh from Kangra

## **PRACTICAL:**

Sketching, Shading, Colouring with oil Pastel and Water colour, Composition, Still life study in pencil shading, Craft making, Presentation of Holiday works.

**Subjects of composition**:- Games & Sports Activities; Composition with Nature; Landscape with human figure; Object study; Indian folk art/traditional art.

**Month-July** 

Working Days-24

#### **Topics**

#### **THEORY:**

## The Mughal School of Miniature Painting:

- (1) Origin and development, (2) Main features of the Mughal School,
- (3) Study of different Mughal Paintings:-
- (a) Krishna lifting Mount Goverdhana by Miskin of Akbar period,
- (b) Falcon on a Bird-Rest by Ustad Mansoor of Jahangir period,
- (c) Kabir and Raidas by Ustad Faquirullah Khan of Shahjahan period.
- (d) Marriage procession of Dara Shikoh by Haji Madni of Provincial Mughal (Avadh) period.



#### **CLASS - XII**

#### SUBJECT - FINE ART- GRAPHICS

## **PRACTICAL:**

Printing using any two mediums like- Serigraphy, Linocut, Wood cut, Colography, MDF, Paper-cardboard and Stencil works in monochrome. Pay special attention to print quality and neatness (no extra spot or impression) even border side & back side of the print & surrounding areas. All prints should be neat and clean always.

**Subjects of composition:** Fantasy; National religions and cultural events and celebrations; Historical and social events and celebrations; Composition with birds and insects; Composition with animals;

**Month-August** 

**Working Days-21** 

#### **Topics**

#### THEORY:

The Deccan School of Miniature Painting:-

- (1) Origin and development, (2) Main features of the Deccan School
- (3) Study of different Deccan Paintings:-
- (a) Hazrat Nizamuddin Auliya and Amir Khusro of Hyderabad,
- (b) Chand Bibi Playing Polo (Chaugan) of Gol Konda.

New Era in Indian Art. Contribution of Indian artists in the struggle for the National Freedom Movement.

National Flag of India and Symbolic significance of its forms and the colour.

## **PRACTICAL:**

Practical Project Report writing, Serigraphy in two Colours using colour mixing system. Make use of line, tone and texture, exploiting the medium fully to realize composition. Size 30x20 cm.

**Subjects of composition:** - Madhubani and other folk arts, Historical monuments; Folk and classical dances / theaters; Jharkhand folk art painting (Khobar & Sohrai), Patachitra of Bengal etc.;

Month-September

Working Days-19

#### **Topics**

#### THEORY:

Introduction to the Bengal School of Painting

- (1) Origin and development, (2) Main features of the Bengal School,
- (3) Study of different paintings of the Bengal school:-
- (a) Journey's End by Abanindranath Tagore,
- (b) Shiv and Sati by Nandlal Bose,
- (c) Radhika by M.A.R. Chughtai,
- (d) Meghdoot by Ram Gopal Vijaivargiya

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#### **CLASS - XII**

#### **SUBJECT - FINE ART- GRAPHICS**

## **PRACTICAL:**

Serigraphy / Etching printing using multicolour and Black & White. Serigraphy by cool colours using Poster / Fabric colours.

**Subjects of composition**:- Traditional / ancient sculpture and painting; Relevant social issues; Daily life; Village life; Urban life; Copy of any Graphic Artists' work.

#### **Month-October**

**Working Days-13** 

#### **Topics**

## **THEORY:**

The Modern Trends in different Contemporary (Modern) Art development.

## Study of different Contemporary (Modern) Indian Paintings:-

- (a) Rama vanguishing the pride of the ocean by Raja Ravi Varma
- (b) Mother and child by Jamini Roy
- (c) Haldi Grinders by Amrita Sher-Gil
- (d) Mother Teresa by M.F. Husain

## **PRACTICAL:**

Serigraphy by warm colours using Poster / Fabric colours. Commercial use of Graphics. Serigraphy / Etching printing on T-Shirts and other products.

**Subjects of composition**: Cartoon characters; Compositions with any two elements. Fantasy: Creative design and pattern making; Portrait.

## **Month-November**

**Working Days-21** 

#### **Topics**

#### THEORY:

Study of different Contemporary (Modern) Indian Graphics:-

- (a) Children by Somnath Hore,
- (b) Devi by Jyoti Bhatt,
- (c) Of Walls by Anupam Sud,
- (d) Man. Woman and Tree by K. Laxma Goud

## Study of different Contemporary (Modern) Indian Sculptures:-

- (a) Triumph of Labour by Devi Prasad Roy Chowdhury
- (b) Santhal Family by Ramkinker Baij
- (c) Cries Unheard by Amarnath Sehgal
- (d) Ganesha by P.V. Janakiram

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#### **CLASS - XII**

#### **SUBJECT - FINE ART- GRAPHICS**

## **PRACTICAL:**

Serigraphy / Etching printing using multicolour and Black & White. Serigraphy by cool colours using Poster / Fabric colours.

**Subjects of composition**:-Traditional / ancient sculpture and painting; Relevant social issues; Daily life; Village life; Urban life; Copy of any Graphic Artists' work.

#### **Month-October**

**Working Days-13** 

## **Topics**

## **THEORY:**

The Modern Trends in different Contemporary (Modern) Art development.

## Study of different Contemporary (Modern) Indian Paintings:-

- (a) Rama vanguishing the pride of the ocean by Raja Ravi Varma
- (b) Mother and child by Jamini Roy
- (c) Haldi Grinders by Amrita Sher-Gil
- (d) Mother Teresa by M.F. Husain

## **PRACTICAL:**

Serigraphy by warm colours using Poster / Fabric colours. Commercial use of Graphics. Serigraphy / Etching printing on T-Shirts and other products.

**Subjects of composition**: Cartoon characters; Compositions with any two elements. Fantasy: Creative design and pattern making; Portrait.

## **Month-November**

**Working Days-21** 

#### **Topics**

#### THEORY:

Study of different Contemporary (Modern) Indian Graphics:-

- (a) Children by Somnath Hore,
- (b) Devi by Jyoti Bhatt,
- (c) Of Walls by Anupam Sud,
- (d) Man. Woman and Tree by K. Laxma Goud

## Study of different Contemporary (Modern) Indian Sculptures:-

- (a) Triumph of Labour by Devi Prasad Roy Chowdhury
- (b) Santhal Family by Ramkinker Baij
- (c) Cries Unheard by Amarnath Sehgal
- (d) Ganesha by P.V. Janakiram

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#### **CLASS - XII**

#### **SUBJECT - FINE ART- GRAPHICS**

## **PRACTICAL:**

Human figure (Colour and Black & white) compositions. Serigraphy using Primary and Secondary colours. Print your composition in one or two colours.

Presentation of Graphics (Print Making). Technique of writing Artist's Proof (A/P), no. of prints (1/6), Medium, Subject, Name Class Sec. in prints.

#### **Month-December**

Working Days-24

#### **Topics**

#### **THEORY:**

Revision of Theory and Previous Question Papers.

#### **PRACTICAL:**

**Portfolio making** with 10 best selected Graphics work- Finishing, mounting and file preparation, with record of the entire year's performance from sketch to finished Art work. Selected prints (either from Linocuts/ Woodcuts/ Paper-cardboard/ MDF/ Colography/ Serigraphy prints) for Portfolio.

**Practical Project Report** Preparation on method, material, art works of the entire year. (Digital two copies).

## Month- January + February

**Working Days-36** 

#### **Topics**

#### THEORY:

Revision work and Theory Question Papers

## **PRACTICAL:**

Practical Exams, Submission of Portfolio with selected 10 best prints, 2 Practical Project Reports (Digital copies).

## **Materials Required for Practical**

Silk screens of 12X15 or 15x20 inches (Approx), MDF Board (8x10inches), Small poster colour set of 6 colours, Few Brushes, Pencil, Small steel bowl-2, Small plastic bottle-2, Cello tape-1 inch, Big Paper knife cutter, Scissor,{Tarpine, Reducer / Nytero / Benzyl Acetate-½ L (keep at home)}, Waste Cloths, Old News Papers, Apron, in a big Carry bag, Chart papers (A/2 size or ½ Chart paper unrolled), File boards for Portfolio of dark Colour etc.

Please submit Theory Assignment and Practical Progress Report

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**CLASS - XII** 

## **SUBJECT - FINE ART- GRAPHICS**

**Practical Exam** 

<u>Practical Paper-I:-</u> Layout making with black and white poster colour on given subject (original composition). Transforming layout on silk screen.

<u>Practical Paper-II</u>: Print Making process. Prints should be identical. All prints should be of good quality, neat and clean. In Practical Exam submit two identical prints along with layout on given topic. For extra prints use your own papers.

<u>Practical (Paper-III)-</u> Portfolio with selected 10 Prints, 2 Practical Project Reports (Digital copies) and

Viva / Oral on Method material, Fundamentals of art, History of Art.



**SUBJECT - FINE ART- PAINTING** 

Month- April Working Days-19

#### **Topics**

#### THEORY:

Six Limbs of Indian Painting & Fundamentals of Visual Arts (Elements & Principles).

Abrief introduction to Indian Miniature Painting and Schools:-

Pal, Jain & Central Indian paintings. Development of Indian Art.

The Rajasthani School of Miniature Painting: -

- (1) Origin and Development,
- (2) Main features of the Rajasthani School.
- (3) Sub-Schools- Mewar, Bundi, Jodhpur, Bikaner, Kishangarh and Jaipur.
- (4) Study of different Rajasthani Paintings:-
- (a) Maru-Ragini by Sahibdin of Mewar,
- (b) Chaugan Players by Dana of Jodhpur,
- (c) Krishna on swing by Nuruddin of Bikaner,
- (d) Radha (Bani-Thani) by Nihal Chand of Kishangarh,
- (e) Bharat Meets Rama at Chitrakut by Guman of Jaipur.

## **PRACTICAL:**

**Method and material of Painting.** Drawing & Painting tools and materials.

Introduction about Nature study-Foliage and flower.

Rendering painting, Still life with different draperies of different colours for background and foreground.

Subjects of composition:- Still life in pencil shading and colour with light and shade from a fixed point of view, Decorative design, Pattern Making Water colour painting (transparent & opaque), Pencil shading & pen ink. **Subjects of composition**:-Flower study and still life in pencil shading and colour, landscape painting, composition with human figure – study room, social event.



**SUBJECT – FINE ART- PAINTING** 

Month- May + June

Working Days-24

#### **Topics**

#### THEORY:

The Pahari School of Miniature Painting: -

- (1) Origin and development, (2) Main features of the Pahari School,
- (3) Sub-Schools- Basohli, Guler, Kangra, Chamba and Garhwal,
- (4) Study of different Pahari Paintings:-
- (a) Krishna with Gopies by Manaku from Basohli,
- (b) NandYashoda and Krishna with Kinsmen going to Vrindavana by Nainsukh from Kangra

#### PRACTICAL:

Portrait study and Life study with pencil shading, sketching &colouring-composition with human figure; Storyboard painting and illustration, **Subjects of composition:-Paper collage.** Daily life, village life, one imaginative painting, animal figure, bird &flower(use pencil and pen). Presentation of Holiday works.

Month- July Working Days-24

## **Topics**

## **THEORY:**

## The Mughal School of Miniature Painting:

- (1) Origin and development,
- (2) Main features of the Mughal School,
- (3) Study of different Mughal Paintings:-
- (a) Krishna lifting Mount Goverdhana by Miskin of Akbar period,
- (b) Falcon on a Bird-Rest by UstadMansoor of Jahangir period,
- (c) Kabir and Raidas by UstadFaguirullah Khan of Shahjahan period.
- (d) Marriage procession of Dara Shikoh by Haji Madni of Provincial Mughal (Avadh) period.

## PRACTICAL:

Drawing method, Elements of Art, Design through modern concept, abstract painting, texture painting and Op art.

**Subjects of composition:-Painting,** Affairs of family, friends and daily life; Affairs of family professionals; Bird and animal composition; Landscape painting with human figures.



**SUBJECT - FINE ART- PAINTING** 

**Month-August** 

Working Days-21

#### **Topics**

#### THEORY:

The Deccan School of Miniature Painting:-

- (1) Origin and development, (2) Main features of the Deccan School
- (3) Study of different Deccan Paintings:-
- (a) HazratNizamuddinAuliya and Amir Khusro of Hyderabad,
- (b) Chand Bibi Playing Polo (Chaugan) of GolKonda.

**New Era in Indian Art.** Contribution of Indian artists in the struggle for the National Freedom Movement.

National Flag of India and Symbolic significance of its forms and the colour.

#### PRACTICAL:

Project report writing. Painting in different medium, Mixed medium, Wax resistance technique. White on white technique, Monochrome painting, Typography painting, Poster painting.

**Subjects of composition**:-Folk art of Jharkhand (Khobar&Sohrai), Madhubani, Patachitra of Bengal etc.; **Fresco/ Mural or Tempera/ any traditional process**. Copy of any miniature painting with watercolour, Landscape with watercolour, Human figure composition- Rainy Day, Park, Cultural event.

**Month-September** 

Working Days-19

#### **Topics**

#### THEORY:

Introduction to the Bengal School of Painting

- (1) Origin and development, (2) Main features of the Bengal School,
- (3) Study of different paintings of the Bengal school:-
- (a) Journey's End by Abanindranath Tagore,
- (b) Shiv and Sati by Nandlal Bose,
- (c) Radhika by M.A.R. Chughtai,
- (d) Meghdoot by Ram Gopal Vijaivargiya

#### PRACTICAL:

Concept of modern art, Modern Art painting (acrylic colour or water colour or poster colour), Canvas or Canvas board painting. **Batik Tie and Dye**, Rangooli, Mandala, Alpana.

**Subjects of painting composition**:-Any festival, Colourful composition, Flowers with flower pot, Imaginative composition.

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**SUBJECT - FINE ART- PAINTING** 

**Month-October** 

**Working Days-13** 

#### **Topics**

## THEORY:

The Modern Trends in different Contemporary (Modern) Art development.

Study of different Contemporary (Modern) Indian Paintings:-

- (a) Rama vanquishing the pride of the ocean by Raja Ravi Varma(b) Mother and child by Jamini Roy
- (c) Haldi Grinders by Amrita Sher-Gil (d) Mother Teresa by M.F. Husain **PRACTICAL**:

Abstract art painting, Modern art, Collage art, Poster Making, Mixed Media, Cartoon and Caricature.

**Subjects of painting composition**:-Mother and child, Cityscape, Copy of any Modern Art.

**Month-November** 

**Working Days-21** 

#### **Topics**

## **THEORY:**

Study of different Contemporary (Modern) Indian Graphics:-

- (a) Children by SomnathHore, (b) Devi by Jyoti Bhatt,
- (c) Of Walls by AnupamSud, (d) Man, Woman and Tree by K. LaxmaGoud

Study of different Contemporary (Modern) Indian Sculptures:-

- (a) Triumph of Labour by Devi Prasad Roy Chowdhury (b) Santhal Family by RamkinkerBaij
- (c) Cries Unheard by AmarnathSehgal(d) Ganesha by P.V. Janakiram **PRACTICAL**:

Colour composition in Acrylic and Water colour. Portfolio making technique.

**Subjects of painting composition**:- Fantasy & dream, Any imaginative composition, Any games or Sports composition (indoor & outdoor).



**SUBJECT - FINE ART- PAINTING** 

**Month-December** 

**Working Days-24** 

#### **Topics**

#### THEORY:

Revision of Theory and Previous Question Papers.

#### PRACTICAL:

**Portfolio making** – Portfolio presentation of painting with record of the entire year's performance from sketch to finished Art work, Pencil shading, pen & ink work, Landscape paintings, Human figure composition, Still life painting, Human figure drawing & sketch, Portrait painting, Modern art painting, Abstract art, Imaginative painting, Canvas or Canvas board painting. Total selected 20 works (Class XI & XII) to be presented with proper mounting in A/2 or A/3 size portfolio.

**Practical project report** (digital two copies) for Practical exam with Portfolio.

Month- January + February

**Working Days-36** 

#### **Topics**

## **THEORY:**

Revision work and Theory Question Papers

## **PRACTICAL:**

Practical Exams, Submission of complete Portfolio with selected 20 works, 2 Practical Project Reports (Digital copies).

#### Materials and topics required Practical

Materials required-Pencil, eraser, shading pencil set, marker (thin and bold), artist oil pastel, artist water colour cakes (18 or 24), artist acrylic colour, big bowl, big colour palate, rough cloth, news paper, paper clip, hard board or file board, A/3 size drawing copy, A/3 size chart paper (unrolled), artist brush pen set (camel), Little artist brush pen (AddGel), different good quality brushes / 66 Series brush set, 1 Canvas board, File boards for Portfolio of dark Colour, Portfolio with selected 20 paintings, project report-2.

Please submit Theory Assignment and Practical Progress Report



**CLASS - XII** 

## **SUBJECT - FINE ART- PAINTING**

**Practical Exam** 

**Practical Topics (Paper-I)-** Pencil shading- Still life study, Nature study, Foliage study, Object study.(Drawing, composition, treatment of media/colour,overall impression.)

**Practical Topics (Paper-II)-**Colourful composition with human figure, daily life, village life, urban life, drawing room, rainy day, festival, market, city life, games & sports, fantasy & dream, cultural & social events, bird and animal with human figure. (Composition, subject, treatment of media/colour, originality, creativity, overall impression.)

Practical (Paper-III)- Record of the entire year's performance from sketch to finish art works. Portfolio with selected 20 paintings, 2 Practical Project Reports(Digital copies) Painting Practical Exam (MCQ) and Viva / Oral on Method material, Fundamentals of art, History of Art. & Six limbs of Indian Art(shadangas)



SUBJECT - HINDUSTANI MUSIC VOCAL

Month- April Working Days-19

**Topics** 

Period - 04

**Practical** 

Raag Bhairav (Drut khyal)

Taan of Raag Bhairav Vilambit khyal in Raga Bhairav (Astayi)

Theory

Brief study of the following:-Alankar. Alap, Tana, Meend, Gamak

Historical development of Time Theory of Ragas

Month- May Working Days-.....

**Topics** 

Period - 02

**Practical** 

Vilambit khyal in Raag Bhairav (Antara)

**Theory** 

Description of prescribed talas along with tala notation with thah, dugun and chaugun -Jhaptala, Rupak

Month- June Working Days-.....

**Topics** 

Period - 03

Practical

Raag Bageshri (Drut khyal)

Theory

Critical study and writing notation of Raga Bageshri

Description of Dhamar talawith tala notation

Month- July Working Days-.....

**Topics** 

Period - 04

Practical

Taan of Raag Bageshri Taan in Vilambit khyal

Theory

Details study of Sangeet Ratnakar

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SUBJECT - HINDUSTANI MUSIC VOCAL

**Month- August** 

Working Days-....

**Topics** 

Period - 04

**Practical** 

Raag Malkouns (Drut khyal)

Theory

Brief study of the following:-Gram, Murchhana, Kan, Khatka, Murki

**Month-September** 

Working Days-.....

**Topics** 

Period - 02

**Practical** 

Taan in Raga Malkouns Tarana in Raga Malkouns

Theory

Details study of Sangeet Parijat Knowledge of tuning of the Tanpura

**Month-October** 

Working Days-.....

**Topics** 

Period - 02

**Practical** 

Dhamar in Raag Malkouns (asthai)

Theory

Life sketch and contribution to music of - Faiyaz kha, Bade Gulam Ali Kha, Krishna Rao Shankar Pandit

**Month-November** 

Working Days-.....

**Topics** 

Period - 03

**Practical** 

Dhamar in Raag Malkouns (antara)

**Theory** 

 $\label{eq:Description} Description of Dhamar Tala\,with\, Tala\,notation.$ 



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## SUBJECT - HINDUSTANI MUSIC VOCAL

	Working Days
Topics	
	Working Days
Topics	
	Working Days

**Topics** 

Period - 02

**Practical** 

Practical exams

Theory

Practical exams

SUBJECT - DANCE

Month- April	Working Days-19

#### **Topics**

## Period - 04

Learning and practice of one Pallavi. Recitation of the Ukutas of the item with hands. Definition of the term Pallavi and Demonstration of the item

Elementary knowledge about the three styles of chhau :Mayurbhanj, Seraikella and Purulla.

## Month- May+June

Working Days-.....

#### **Topics**

#### Period - 02

Brief notes on the lives and contribution of the three Gurus : Guru PankajCharan Das, Guru KelucharanMohapatra and Guru Deba Prasad Das.

Name the folk dance of Odisha.

Elementary introduction to the texts: NatyaShastra, AbhinayaDarpana and AbhinayaChandrika -a) Identification of the author (approximate date) (b) Basic overview of the broad areas covered in the context of each text. (c) Myths regarding the origin of dance according to each text.

Month- July	Working Days

## **Topics**

## Period - 03

(a) Basic understanding of the term ABHINAYA and definition of its four aspects: Angika, Vachika, Aharya and Sattvik

(b) Rasa; Definition and short explanation of the nine rasas.

Ability to show different Paadbhedas and bramaris.



SUBJECT - DANCE

Month- August Working Days-......

## **Topics**

## Period - 04

Practice of patak hasta mudra viniyogacc to AbhinayaDarpan. Short notes on: (a) The Aharya of Odissi (b) The music accompaniment of Odissi (c) Past and present exponents of Odissi their short biography and contribution. And brief explanation of the following terms: (a) Nritta, Nritya, and Natya (b) Matra, Laya, Taal, Avartan, Vibhaga (c) Tandav and Lasya (d) Natyadharmi and Lokadharmi.

Month-September

Working Days-.....

#### **Topics**

#### Period - 02

Ability to demonstrate the following Bhangis: Samabhanga, Abhanga, Tribhaanga, Alasaa, Darpani, Abhimama, Mardala, ParshvaMardala, and Biraja, Akuchana, Kumbhaka, Architkar or Nibedana, Daalmalika. Ability to write the notation of the learnt items of Sthayi and Moksha. Ability to show different paadbhedas and bramaris. Definition and short explanation of nineRasa. And folk dance of Odisha.

Month- October

Working Days-.....

## **Topics**

#### Period - 02

Revision of the Pallavi.

Revision of Patak Hasta Mudra Viniyog.

Identification of the Raga, Taal and Choreographer of the Pallavi. Identification of the Hastas and the Bhangis used in the Items. Oriya song: (a) Demonstration of the item (b) Name of the poet (c) Naming of the Raga and Taal of the item (d) Meaning of the verses used (e) Identification of the hastas used.



CLASS - XII	SUBJECT - DANCE			
Month- November	Working Days			
Topics				
Period - 03 Revision work and Theory exams. Revision of Bhangis.				
Month- December	Working Days			
Topics				
Period - 03 Practical Exams. Submission of Practical Project.				
Month- January	Working Days			
Topics				
Period - 02 Revision work for Term – II Exams.				