



Sanskriti School  
Dr S Radhakrishnan Marg  
New Delhi -110021

**GRADE 12 (2022-23)**  
**PRE BOARD EXAMINATION**  
**Syllabus and Blue Print**

**1. English**

**Section A**

**Reading Skills**

Reading Comprehension through Unseen Passage 20 Marks

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

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

*Multiple Choice Questions / Objective Type Questions will be asked.*

**Section B**

III. Creative Writing Skills 20 Marks

*The section has Short and Long writing tasks.*

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

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

iii. Letters based on verbal/visual input, to be answered in approximately 120-150 words. Letter types include application for a job with bio data or resume. Letters to the

editor (giving suggestions or opinion on issues of public interest) . One out of the two given questions to be answered . (5 Marks: Format : 1 / Organisation of Ideas: 1/Content : 2 / Accuracy of Spelling and Grammar :1 ).

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

### Section C

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

#### IV. Reference to the Context 40 Marks

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

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

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

V. Short answer type question (from Prose and Poetry from the book Flamingo), to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking. Five questions out of the six given are to be answered. (5x2=10 Marks)

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

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

VIII. One Long answer type question, based on the chapters from the book Vistas, to be answered in 120-150 words to assess global comprehension and extrapolation beyond the text. Questions to provide evaluative and analytical responses using incidents, events, themes as reference points. Any 1 out of 2 questions to be done. (1x5=5 Marks)

### **Syllabus**

#### 1. Flamingo

(Prose)

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

(Poetry)

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

#### 2. Vistas

	<ul style="list-style-type: none"> <li>• The Third Level</li> <li>• The Tiger King</li> <li>• Journey to the end of the Earth</li> <li>• The Enemy</li> <li>• On the Face of It</li> <li>• Memories of Childhood</li> <li>○ The Cutting of My Long Hair</li> <li>○ We Too are Human Beings</li> </ul>
<p><b>2. Maths</b></p>	<p><b><u>SYLLABUS</u></b></p> <p><b>Unit-I: Relations and Functions</b></p> <p><b>1. Relations and Functions</b> Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions.</p> <p><b>2. Inverse Trigonometric Functions</b> Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.</p> <p><b>Unit-II: Algebra</b></p> <p><b>1. Matrices</b> 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. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).</p> <p><b>2. Determinants</b> 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 systems of linear equations by examples, solving systems of linear equations in two or three variables (having unique solution) using inverse of a matrix.</p>

### Unit-III: Calculus

#### 1. Continuity and Differentiability

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

Concept of exponential and logarithmic functions.

Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.

#### 2. Applications of Derivatives

Applications of derivatives: rate of change of bodies, increasing/decreasing functions, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations).

#### 3. Integrals

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

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

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

#### 4. Applications of the Integrals

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

#### 5. Differential Equations

Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential

equations of first order and first degree. Solutions of linear differential equation of the type:  $dy/dx + py = q$ , where  $p$  and  $q$  are functions of  $x$  or constants.

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

### Unit-IV: Vectors and Three-Dimensional Geometry

#### 1. Vectors

Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position

vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors.

**2. Three - dimensional Geometry**

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

**Unit-V: Linear Programming**

**1. Linear Programming**

Introduction, related terminology such as constraints, objective function, optimization, graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints).

**Unit-VI: Probability**

**1. Probability**

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

**MARKS WEIGHTAGE**

Unit	Title	Marks
I	Relations and Functions	8
II	Algebra	10
III	Calculus	35
IV	Vectors and Three-Dimensional Geometry	14
V	Linear Programming	5
VI	Probability	8
	Total	80

### 3. Biology

#### SYLLABUS

##### Unit-VI Reproduction

Chapter-2: Sexual Reproduction in Flowering Plants Flower structure; development of male and female gametophytes; pollination - types, agencies and examples; out breeding devices; pollen-pistil interaction; double fertilization; post fertilization events - development of endosperm and embryo, development of seed and formation of fruit; special modes- apomixis, parthenocarpy, polyembryony; Significance of seed dispersal and fruit formation.

Chapter-3: Human Reproduction Male and female reproductive systems; microscopic anatomy of testis and ovary; gametogenesis -spermatogenesis and oogenesis; menstrual cycle; fertilisation, embryo development upto blastocyst formation, implantation; pregnancy and placenta formation (elementary idea); parturition (elementary idea); lactation (elementary idea).

Chapter-4: Reproductive Health Need for reproductive health and prevention of Sexually Transmitted Diseases (STDs); birth control - need and methods, contraception and medical termination of pregnancy (MTP); amniocentesis; infertility and assisted reproductive technologies - IVF, ZIFT, GIFT (elementary idea for general awareness).

##### Unit-VII Genetics and Evolution

Chapter-5: Principles of Inheritance and Variation Heredity and variation: Mendelian inheritance; deviations from Mendelism – incomplete dominance, co-dominance, multiple alleles and inheritance of blood groups, pleiotropy; elementary idea of polygenic inheritance; chromosome theory of inheritance; chromosomes and genes; Sex determination - in humans, birds and honey bee; linkage and crossing over; sex linked inheritance - haemophilia, colour blindness; Mendelian disorders in humans - thalassemia; chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

Chapter-6: Molecular Basis of Inheritance Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central Dogma; transcription, genetic code, translation; gene expression and regulation - lac operon; Genome, Human and rice genome projects; DNA fingerprinting.

Chapter-7: Evolution Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution - variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; adaptive radiation; human evolution.

**Unit-VIII Biology and Human Welfare** Chapter-8: Human Health and Diseases Pathogens; parasites causing human diseases (malaria, dengue, chikungunya, filariasis, ascariasis, typhoid, pneumonia, common cold, amoebiasis, ring worm) and their control; Basic concepts of immunology - vaccines; cancer, HIV and AIDS; Adolescence - drug and alcohol abuse.

Chapter-10: Microbes in Human Welfare Microbes in food processing, industrial production, sewage treatment, energy generation and microbes as bio-control agents and bio-fertilizers. Antibiotics; production and judicious use.

**Unit-IX Biotechnology and its Applications**

Chapter-11: Biotechnology - Principles and Processes Genetic Engineering (Recombinant DNA Technology).

Chapter-12: Biotechnology and its Applications Application of biotechnology in health and agriculture: Human insulin and vaccine production, stem cell technology, gene therapy; genetically modified organisms - Bt crops; transgenic animals; biosafety issues, biopiracy and patents.

**Unit-X Ecology and Environment.**

Chapter-13: Organisms and Populations Population interactions - mutualism, competition, predation, parasitism; population attributes - growth, birth rate and death rate, age distribution. (Topics excluded: Organism and its Environment, Major Abiotic Factors, Responses to Abiotic Factors, Adaptations)

Chapter-14: Ecosystem Ecosystems: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy (Topics excluded: Ecological Succession and Nutrient Cycles).

Chapter-15: Biodiversity and its Conservation Biodiversity-Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book, Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.

**MARKS WEIGHTAGE**

Unit	Title	Marks
VI	Reproduction	16



<b>VII</b>	Genetics and Evolution	20
<b>VIII</b>	Biology and Human Welfare	12
<b>IX</b>	Biotechnology and its Applications	12
<b>X</b>	Ecology and Environment	10
	Total	70

#### 4. Biotech

##### SYLLABUS

##### **Unit V Protein and Gene Manipulation**

##### **Unit VI Cell Culture and Genetic Manipulation**

##### Unit-V Protein and Gene Manipulation

Chapter-1: Recombinant DNA Technology Introduction, Tool of Recombinant DNA technology, Making rDNA molecule, Introduction of recombinant DNA into host cells, Identification of recombinants, Polymerase Chain Reaction (PCR), DNA Sequencing.

Chapter-2: Protein Structure and Engineering Introduction to the world of proteins, Structure-function Relationship in proteins, Characterization of proteins, Protein based products, Designing proteins (Protein Engineering)

Chapter-3: Genomics, Proteomics and Bioinformatics Gene prediction and counting, Genome similarity, SNPs and Comparative genomics, Functional genomics, Proteomics, Information sources, Analysis using bioinformatics tools.

##### **Unit-VI Cell Culture and Genetic Manipulation**

Chapter-1: Microbial Cell Culture and its Applications Introduction, Microbial nutrition and culture techniques, Measurement and kinetics of microbial growth, Isolation of microbial products, Strain isolation and improvement, Applications of microbial culture technology.

Chapter -2: Plant Cell Culture and Applications Introduction, Cell and tissue culture techniques, Applications of cell and tissue culture, Transgenic plants with beneficial traits, Biosafety of transgenic plants

Chapter-3: Animal Cell Culture and Applications Introduction, Animal cell culture techniques, Applications of animal cell culture, Stem cell technology.

**MARKS WEIGHTAGE**

<b>Unit</b>	<b>Title</b>	<b>Marks</b>
<b>V</b>	<b>Unit V Protein and Gene Manipulation</b>	40
	Chapter 1: Recombinant DNA technology, Making rDNA molecule, Introduction of recombinant DNA into host cells, Identification of recombinants, Polymerase Chain Reaction (PCR), DNA Sequencing.	15
	Chapter-2: Protein Structure and Engineering	15
	Chapter-3: Genomics, Proteomics and Bioinformatics	10
<b>VI</b>	<b>Unit VI Cell Culture and Genetic Manipulation</b>	30
	Chapter-1: Microbial Cell Culture and Applications	10
	Chapter-2: Plant Cell Culture and Applications	10
	Chapter-3: Animal Cell Culture and Applications	10
	TOTAL	70

## 5. Physics

SYLLABUS

		No. of Periods	Marks
<b>Unit-I</b>	<b>Electrostatics</b>	26	16
	Chapter-1: Electric Charges and Fields		
	Chapter-2: Electrostatic Potential and Capacitance		
<b>Unit-II</b>	<b>Current Electricity</b>	18	
	Chapter-3: Current Electricity		
<b>Unit-III</b>	<b>Magnetic Effects of Current and Magnetism</b>	25	17
	Chapter-4: Moving Charges and Magnetism		
	Chapter-5: Magnetism and Matter		
<b>Unit-IV</b>	<b>Electromagnetic Induction and Alternating Currents</b>	24	
	Chapter-6: Electromagnetic Induction		
	Chapter-7: Alternating Current		
<b>Unit-V</b>	<b>Electromagnetic Waves</b>	04	
	Chapter-8: Electromagnetic Waves		
<b>Unit-VI</b>	<b>Optics</b>	30	18
	Chapter-9: Ray Optics and Optical Instruments		
	Chapter-10: Wave Optics		
<b>Unit-VII</b>	<b>Dual Nature of Radiation and Matter</b>	8	12
	Chapter-11: Dual Nature of Radiation and Matter		
<b>Unit-VIII</b>	<b>Atoms and Nuclei</b>	15	
	Chapter-12: Atoms		
	Chapter-13: Nuclei		
<b>Unit-IX</b>	<b>Electronic Devices</b>	10	7
	Chapter-14: Semiconductor Electronics: Materials, Devices and Simple Circuits		
<b>Total</b>		<b>160</b>	<b>70</b>

**BLUE PRINT****QUESTION WISE BREAK UP**

TYPE OF QUESTION(S)	MARK(S) PER QUESTION	TOTAL NO OF QUESTIONS	TOTAL MARKS
MCQ/ ASSERTION REASONING QUESTIONS	1	18	18
SA-I	2	7	14
SA-II	3	5	15
LA	5	3	15
CASE STUDY BASED QUESTIONS	4	2	8
TOTAL		35	70

**6. Chemistry**

S.No.	Title	Marks
1	Solutions	7
2	Electrochemistry	9
3	Chemical Kinetics	7
4	d -and f -Block Elements	7
5	Coordination Compounds	7
6	Haloalkanes and Haloarenes	6
7	Alcohols, Phenols and Ethers	6
8	Aldehydes, Ketones and Carboxylic Acids	8
9	Amines	6
10	Biomolecules	7
	<b>Total</b>	<b>70</b>

**QUESTION WISE BREAK UP**

TYPE OF QUESTION(S)	MARK(S) PER QUESTION	TOTAL NO OF QUESTIONS	TOTAL MARKS
MCQ/ ASSERTION REASONING QUESTIONS	1	18	18
SA-I	2	7	14
SA-II	3	5	15
LA	5	3	15
CASE STUDY BASED QUESTIONS	4	2	8
<b>TOTAL</b>		<b>35</b>	<b>70</b>

**7. Comp. Sc**

Unit	1 mk	2 mk	3 mk	4 mk	5 mk
Unit I Revision of Python Functions File Handling Data Structures	11	4	3	1	1
Unit II Computer Networks	1	2			1
Unit III Database Concepts Interface Python with SQL database	6	2	3	1	
Marks	18	16	18	8	10
Total :					70

**8. Web Application**

**SYLLABUS**  
Employability Skills:  
 1. Self Management

2. ICT Skills  
 3. Entrepreneurship Skills  
Subject Skills:  
 1. Movie Editing Tools  
 2. Customizing and Embedding Multimedia Components in Web Pages  
 3. JavaScript  
 4. Advanced features in Web Design

**BLUEPRINT**

Max. Time: 3 Hours Max. Marks: 60

**PART A - EMPLOYABILITY SKILLS (10 MARKS):**

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANSWER TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	
1	Self-Management Skills- IV	2	2	4
2	ICT Skills- IV	2	1	3
3	Entrepreneurial Skills- IV	2	2	4
<b>TOTAL QUESTIONS</b>		<b>6</b>	<b>5</b>	<b>11</b>
<b>NO. OF QUESTIONS TO BE ANSWERED</b>		<b>Any 4</b>	<b>Any 3</b>	<b>07</b>
<b>TOTAL MARKS</b>		<b>1 x 4 = 4</b>	<b>2 x 3 = 6</b>	<b>10 MARKS</b>

**PART B - SUBJECT SPECIFIC SKILLS (50 MARKS):**

UNIT NO.	NAME OF THE UNIT	OBJECTIVE TYPE QUESTIONS	SHORT ANS. TYPE QUES.- I	SHORT ANS. TYPE QUES.- II	DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS	TOTAL QUESTIONS
		1 MARK EACH	2 MARKS EACH	3 MARKS EACH	4 MARKS EACH	
1	Movie Editing Tools	6	-	1	1	8
2	Customizing and Embedding Multimedia components in Web Pages:	10	1	-	1	12
3	Web Scripting – JavaScript:	9	3	1	3	16
4	Work Integrated Learning IT – WA-II:	7	1	1	-	9
<b>TOTAL QUESTIONS</b>		<b>32</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>45</b>
<b>NO. OF QUESTIONS TO BE ANSWERED</b>		<b>26</b>	<b>Any 3</b>	<b>Any 2</b>	<b>Any 3</b>	<b>34</b>
<b>TOTAL MARKS</b>		<b>1 x 26= 26</b>	<b>2 x 3 = 6</b>	<b>3 x 2 = 6</b>	<b>4 x 3 = 12</b>	<b>50 MARKS</b>

**9. Economics**

<b>PART A: Macroeconomics</b>		
1.	National income and related aggregates	10
2.	Money and Banking	06
3.	Determination of Income and Employment	12
4.	Government Budget and the Economy	06
5.	Balance of Payments	06
<b>Part A TOTAL</b>		<b>40</b>
<b>PART B: Indian Economic Development</b>		

6.	Development Experience (1947-90) and Economic Reforms since 1991	12
7.	Current Challenges facing Indian Economy	20
8.	Development Experience of India – A Comparison with Neighbours	08
	<b>Part B TOTAL</b>	<b>40</b>
	<b>Project</b>	<b>20</b>
	<b>TOTAL</b>	<b>100</b>

### 10. Psychology

	Topics	Marks
<b>Unit I</b>	<b>Variations in Psychological Attributes</b> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Individual Differences in Human Functioning</li> <li>3. Assessment of Psychological Attributes</li> <li>4. Intelligence</li> <li>5. Theories of Intelligence: Psychometric Theories of Intelligence, Information Processing Theories, Theory of Multiple Intelligences, Triarchic Theory of Intelligence, Planning, Attention-Arousal and Simultaneous Successive Model of Intelligence</li> <li>6. Individual Differences in Intelligence</li> <li>7. Culture and Intelligence</li> <li>8. Emotional Intelligence</li> <li>9. Special Abilities: Aptitude: Nature and Measurement</li> <li>10. Creativity</li> </ol>	<b>12</b>

	<p><b>Unit II</b></p>	<p><b>Self and Personality</b></p> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Self and Personality</li> <li>3. Concept of Self</li> <li>4. Cognitive and Behavioural Aspects of Self</li> <li>5. Culture and Self</li> <li>6. Concept of Personality</li> <li>7. Major Approaches to the Study of Personality</li> </ol> <ul style="list-style-type: none"> <li>• Type Approach</li> <li>• Trait Approach</li> <li>• Psychodynamic Approach</li> <li>• Behavioural Approach</li> <li>• Cultural Approach</li> <li>• Humanistic Approach</li> </ul> <ol style="list-style-type: none"> <li>8. Assessment of Personality</li> </ol> <ul style="list-style-type: none"> <li>• Self-report Measures</li> <li>• Projective Techniques</li> <li>• Behavioural Analysis</li> </ul>	<p><b>13</b></p>
	<p><b>Unit III</b></p>	<p><b>Meeting Life Challenges</b></p> <ol style="list-style-type: none"> <li>1. Introduction</li> <li>2. Nature, Types and Sources of Stress</li> <li>3. Effects of Stress on Psychological Functioning and Health • Stress and Health</li> </ol> <ul style="list-style-type: none"> <li>• General Adaptation Syndrome</li> <li>• Stress and Immune System</li> <li>• Lifestyle</li> </ul> <ol style="list-style-type: none"> <li>4. Coping with Stress</li> </ol> <ul style="list-style-type: none"> <li>• Stress Management Techniques</li> </ul> <ol style="list-style-type: none"> <li>5. Promoting Positive Health and Well-being</li> </ol> <ul style="list-style-type: none"> <li>• Stress Resistant Personality</li> <li>• Life Skills</li> <li>• Positive Health</li> </ul>	<p><b>10</b></p>



	<table border="1"> <tr> <td> <b>Unit IV</b> </td> <td> <b>Psychological Disorders</b>  1. Introduction  2. Concepts of Abnormality and Psychological Disorders •  Historical Background  3. Classification of Psychological Disorders  4. Factors Underlying Abnormal Behaviour  5. Major Psychological Disorders <ul style="list-style-type: none"> <li>• Anxiety Disorders</li> <li>• Obsessive-Compulsive and Related Disorders</li> <li>• Trauma-and Stressor-Related Disorders</li> <li>• Somatic Symptom and Related Disorders</li> <li>• Dissociative Disorders</li> <li>• Depressive Disorder</li> <li>• Bipolar and Related Disorders</li> <li>• Schizophrenia Spectrum and Other Psychotic Disorders</li> <li>• Neurodevelopmental Disorders</li> <li>• Disruptive, Impulse-Control and Conduct Disorders</li> <li>• Feeding and Eating Disorders</li> <li>• Substance Related and Addictive Disorders</li> </ul> </td> <td> <b>13</b> </td> </tr> <tr> <td> <b>Unit V</b> </td> <td> <b>Therapeutic Approaches</b>  1. Nature and Process of Psychotherapy <ul style="list-style-type: none"> <li>• Therapeutic relationship</li> </ul> 2. Types of Therapies <ul style="list-style-type: none"> <li>• Behaviour Therapy</li> <li>• Cognitive Therapy</li> <li>• Humanistic-Existential Therapy</li> <li>• Alternative Therapies</li> </ul> 3. Rehabilitation of the Mentally Ill </td> <td> <b>7</b> </td> </tr> </table>	<b>Unit IV</b>	<b>Psychological Disorders</b> 1. Introduction 2. Concepts of Abnormality and Psychological Disorders • Historical Background 3. Classification of Psychological Disorders 4. Factors Underlying Abnormal Behaviour 5. Major Psychological Disorders <ul style="list-style-type: none"> <li>• Anxiety Disorders</li> <li>• Obsessive-Compulsive and Related Disorders</li> <li>• Trauma-and Stressor-Related Disorders</li> <li>• Somatic Symptom and Related Disorders</li> <li>• Dissociative Disorders</li> <li>• Depressive Disorder</li> <li>• Bipolar and Related Disorders</li> <li>• Schizophrenia Spectrum and Other Psychotic Disorders</li> <li>• Neurodevelopmental Disorders</li> <li>• Disruptive, Impulse-Control and Conduct Disorders</li> <li>• Feeding and Eating Disorders</li> <li>• Substance Related and Addictive Disorders</li> </ul>	<b>13</b>	<b>Unit V</b>	<b>Therapeutic Approaches</b> 1. Nature and Process of Psychotherapy <ul style="list-style-type: none"> <li>• Therapeutic relationship</li> </ul> 2. Types of Therapies <ul style="list-style-type: none"> <li>• Behaviour Therapy</li> <li>• Cognitive Therapy</li> <li>• Humanistic-Existential Therapy</li> <li>• Alternative Therapies</li> </ul> 3. Rehabilitation of the Mentally Ill	<b>7</b>
<b>Unit IV</b>	<b>Psychological Disorders</b> 1. Introduction 2. Concepts of Abnormality and Psychological Disorders • Historical Background 3. Classification of Psychological Disorders 4. Factors Underlying Abnormal Behaviour 5. Major Psychological Disorders <ul style="list-style-type: none"> <li>• Anxiety Disorders</li> <li>• Obsessive-Compulsive and Related Disorders</li> <li>• Trauma-and Stressor-Related Disorders</li> <li>• Somatic Symptom and Related Disorders</li> <li>• Dissociative Disorders</li> <li>• Depressive Disorder</li> <li>• Bipolar and Related Disorders</li> <li>• Schizophrenia Spectrum and Other Psychotic Disorders</li> <li>• Neurodevelopmental Disorders</li> <li>• Disruptive, Impulse-Control and Conduct Disorders</li> <li>• Feeding and Eating Disorders</li> <li>• Substance Related and Addictive Disorders</li> </ul>	<b>13</b>					
<b>Unit V</b>	<b>Therapeutic Approaches</b> 1. Nature and Process of Psychotherapy <ul style="list-style-type: none"> <li>• Therapeutic relationship</li> </ul> 2. Types of Therapies <ul style="list-style-type: none"> <li>• Behaviour Therapy</li> <li>• Cognitive Therapy</li> <li>• Humanistic-Existential Therapy</li> <li>• Alternative Therapies</li> </ul> 3. Rehabilitation of the Mentally Ill	<b>7</b>					

<b>Unit VI</b>	<b>Attitude and Social Cognition</b> 1. Introduction 2. Explaining Social Behaviour 3. Nature and Components of Attitudes 4. Attitude Formation and Change <ul style="list-style-type: none"> <li>● Attitude Formation</li> <li>● Attitude Change</li> <li>● Attitude-Behaviour Relationship</li> </ul> 5. Prejudice and Discrimination 6. Strategies for Handling Prejudice	8
<b>Unit VII</b>	<b>Social Influence and Group Processes</b> 1. Introduction 2. Nature and Formation of Groups 3. Type of Groups 4. Influence of Group on Individual Behaviour <ul style="list-style-type: none"> <li>● Social Loafing</li> <li>● Group Polarisation</li> </ul>	7

**Blueprint of Question Paper: Question-Wise Division of Marks**

Sections	Types of questions	Marks per question	No. of questions	Total marks
<b>A</b>	<b>Learning Checks</b>	1	18	18
<b>B</b>	<b>Short Answer Type - I Questions</b>	2	5	10
<b>C</b>	<b>Short Answer Type - II Questions</b>	3	4	12
<b>D</b>	<b>Long Answer Type - I Questions</b>	4	4	16
<b>E</b>	<b>Long Answer Type - II Questions</b>	6	1	6
<b>F</b>	<b>Case-Based Questions (Two cases)</b>	2	4	8
<b>Total</b>			<b>36</b>	<b>70</b>

**11. Sociology****Indian Society**

Chapter 2-The Demographic Structure of Indian Society

Chapter 3-Social Institutions: Continuity and Change

Chapter 5-Patterns of Social Inequality and Exclusion

Chapter 6-The Challenges of Cultural Diversity

**Social Change and Development in India**

Chapter 1-Structural Change

Chapter 2-Cultural Change

Chapter 4-Change and Development in Rural Society

Chapter 5-Change and Development in Industrial Society

Chapter 8-Social Movements

**Blueprint of Question Paper: Question-Wise Division of Marks**

Sections	Types of questions	Marks per question	No. of questions	Total marks
<b>A</b>	<b>Learning Checks</b>	1	20	20
<b>B</b>	<b>Very Short Answer Type Questions</b>	2	9	18
<b>C</b>	<b>Short Answer Type Questions</b>	4	6	24
<b>D</b>	<b>Long Answer Type Questions</b>	6	3	18
<b>Total</b>			<b>38</b>	<b>80</b>

**12. Legal Studies**

**Unit 1- Judiciary** i. Structure and Hierarchy of Courts and Legal Offices in India ii. Constitution, Roles and Impartiality iii. Appointments, Trainings, Retirement and Removal of Judges iv. Courts and Judicial Review

**Unit 2- Topics of Law** i. Law of Property ii. Law of Contracts iii. Law of Torts iv. Introduction to Criminal Laws in India

**Unit 3- Arbitration, Tribunal Adjudication and Alternative Dispute Resolution** i. Adversarial and Inquisitorial Systems ii. Introduction to Alternative Dispute Resolution iii. Types of ADR- Arbitration, Administrative Tribunals iv. Mediation and Conciliation v. Lok Adalats vi. Ombudsman vii. Lokpal and Lokayukta

**Unit 4- Human Rights in India** i. Constitutional framework and Related laws in India- Human Rights in India; Preamble, Fundamental Rights, Fundamental Duties, Directive Principles of State Policy ii. Complaint mechanism of quasi judicial bodies NHRC, NCM, NCW, NCSC and NCST

**Unit 5- Legal Profession in India** i. The Advocates Act, 1961 ii. The Bar Council of India iii. Lawyers and Professional Ethics Professional duties of an advocate; Advertising by Lawyers iv. Opportunities for Law graduates v. Legal Education in India vi. Liberalization of the Legal Profession vii. Women and Legal Profession in India.

**Unit 6- Legal Services** i. Free Legal Aid under Criminal law, Legal Aid by the State, Legal Aid under the Indian Constitution ii. NALSA Regulations, 2010 iii. Criteria for giving free Legal Services iv. Lok Adalats v. Legal Aid in Context of Social Justice and Human Rights  
**Unit 7- International Context** i. Introduction to International Law ii. Sources of International Law – Treaties, Customs and ICJ Decisions iii. International Institutions iv. International Human Rights v. Customary International Law vi. International law & Municipal Law vii. International Law & India viii. Dispute Resolution – ICJ, ICC and Other Dispute Resolution Mechanisms

Type of questions	Weightage	No. of questions	Total Marks
Objective Type Questions	1	20	20
Very short answer type questions	2	8	16
Short answer type questions	3	8	24
Long answer Type Questions	5	4	20

**13. Fine Arts**

Theory - 30 Marks  
 1) a. Six Limbs of Indian Painting & Fundamentals of Visual Art  
     b. The Rajasthani & Pahari Schools of Miniature Paintings - 10 Marks  
 2) The Mughal & Deccani Schools of Miniature Paintings - 10 Marks  
 3) The Bengal School of Painting & Modern Trends in Indian Art - 10 Marks  
 Practical - 70 Marks  
 Illustration - 25 Marks  
 Poster - 25 Marks  
 Portfolio- 20 Marks

**14. Home Science**

- Work, livelihood and career
- Nutrition, Food Science and Family Studies
- Human development and family studies
- Fabric and apparel
- Resource Management
- Communication and Extension

Type of questions	Weightage	No. of questions	Total marks
<b>Very short answer I</b>	1 mark	18	18
<b>Very short answer II</b>	2 marks	7	14
<b>Short answer</b>	3 marks	4	12
<b>Long answer</b>	4 marks	4	16
<b>Very long answer</b>	5 marks	2	10
<b>Total</b>			70

**15. Fashion Studies**

**PART A - EMPLOYABILITY SKILLS (10 MARKS)**  
 Self-Management Skills  
 Information and Communication Technology Skills  
 Entrepreneurial Skills

**PART B - SUBJECT SPECIFIC SKILLS (50 MARKS)**  
 1. History of Fashion  
 2. Basic Pattern Development  
 3. Elements of Fashion  
 4. Basics of Garment Making

Unit	Chapter	Marks
1.	History of Fashion	10
2.	Basic Pattern Development	15
3.	Elements of Fashion	13
4.	Basics of Garment Making	12
	<b>Total</b>	<b>50</b>

16. Pol. Science

XII (2022-23) Political Science PreBoard Examination		
SYLLABUS		
Book	<b>POLITICS IN INDIA SINCE INDEPENDENCE</b>	1.Challenges 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
Book	<b>CONTEMPORARY WORLD POLITICS</b>	1. The End of Bipolarity
		2.New Centres of Power
		3.Contemporary South Asia
		4.United Nations and its Organizations
		5.Security in Contemporary World
		6.Environment and Natural Resources
		7.Globalization

**IMPORTANT NOTE:** Syllabus includes the above contents covered through all sources in form of textbook, text cartoon/pictures, newly added CBSE material, online presentations shared, Handouts posted in GC and extra questions (relevant) in SmartSkills, information dictated as part of concept understanding.

BLUEPRINT OF XII POLITICAL SCIENCE Pre-Board Exam PAPER 2022-23			
Type of Qs	Mark(s) per Qs	Total# of Qs	Total Marks
VSA	1	12	12
SA-I	2	06	12
SA-II	4	05	20
Cartoon/Map/Passage based	4	03	12
LA-II	6	04	24
<b>TOTAL</b>		<b>30</b>	<b>80</b>
<b>BLUEPRINT IS AS PER THE SQP BY CBSE FOR 2022-23 BOARD EXAMS</b>			

17. Geography

**INDIA PEOPLE AND ECONOMY**  
 Chapter 1- Population Distribution Density & Growth  
 Chapter 4- Human Settlement  
 Chapter 5- Land Resources and Agriculture  
 Chapter 6- Water Resources  
 Chapter 7- Mineral and Energy Resources  
 Chapter 9- Planning and Sustainable Development in India

Chapter 10- Transport and Communication  
 Chapter 11- International Trade  
 Chapter 12- Geographical Perspective on selected Issues

**FUNDAMENTALS OF HUMAN GEOGRAPHY**

Chapter 1- Human Geography Nature and Scope  
 Chapter 2 - World Population, Distribution and Growth  
 Chapter 5 - Primary Activities  
 Chapter 6 - Secondary Activities  
 Chapter 7 - Tertiary & Quaternary Activities  
 Chapter 8 - Transport & Communication  
 Chapter 9 - International Trade

Question Type	No. of Questions	Marks Allotted	Total
V. Short Answer	17	1 mark each	17
Short Answers	06	3 marks each	18
V. Long Answers	05	5 marks each	25
Map	02	5 marks each	10
Total	30	–	70

**18. History**

**Book I**

Chapter 1 -- Bricks, Beads and Bones  
 Chapter 2-- Kings, Farmers and Towns  
 Chapter 3 -- Kinship, Caste and Class  
 Chapter 4 -- Thinkers, Beliefs and Buildings

**Book II**

Chapter 5 -- Through the Eyes of the Travellers  
 Chapter 6 -- Bhakti - Sufi Traditions  
 Chapter 7 -- An Imperial Capital -Vijayanagara  
 Chapter 8 -- Peasants, Zamindars and The State

**Book III**

Chapter 10- Colonialism and the Countryside  
 Chapter 11- Rebels and the Raj  
 Chapter 13-Mahatma Gandhi and the Nationalist Movement  
 Chapter 15-Framing the Constitution

**List of Maps**

Mature Harappan sites :Harappa, Banawali, Kalibangan, Balakot, Rakhigadi, Dholavira,Nageshwar,Lothal,Mohenjodaro,Chanhudaro,KotDiji.

Mahajanapada and cities

Vajji,Magadha,Kosala,Kuru,Panchala,Gandhara,Avanti,Rajgir,Ujjain,Taxila, Varanasi.

Distribution of Ashokan inscriptions : (i) Kushans, Shakas, Satavahana, Vakatakas,

Gupta Cities/towns : Mathura, Kanauj, Puhar,

Brahukachchha,Shrivasti,Rajgir,Vaishali, Varanasi,Vidisha

Pillar inscriptions - Sanchi, Topra, Meerut, Pillar, Kaushambi.

Kingdom of Cholas, Keralaputras and Pandyas.

Major Buddhist Sites :

Nagarjunakonda,Sanchi,Amaravati,Lumbini,Nasik,Bharhut,BodhGaya,

Shravasti, Ajanta

Bidar, Golconda, Bijapur, Vijayanagar, Chandragiri, Kanchipuram, Mysore,

Thanjavur,Kolar,Tiruneveli,Quilon

Territories under Babur, Akbar and Aurangzeb :

Delhi,Agra,Panipat,Amber,Ajmer,Lahore

Punjab, Sindh, Bombay, Madras, Masulipatnam, Bengal, Bihar, Orissa, Awadh, Surat,

Calcutta, Deccan, Patna, Benaras, Allahabad, Lucknow

Centres of the Revolt - Delhi, Meerut, Jhansi, Lucknow, Kanpur, Azamgarh, Calcutta,

Benaras, Gwalior, Jabalpur, Agra, Awadh

National Movement - Champaran, Kheda, Ahmedabad, Amritsar, Chauri Chaura,

Lahore, Bardoli, Dandi, Bombay, Karachi

Type of Question(s)	Mark(s) per Question	Total no of Questions	Total Marks
VSA ( Objective )	01	21	21
SA	03	06	18
LA	08	03	24



Source Based	04	03	12
MAP	06	01	05
TOTAL	--	34	80

**19. Business Studies**

<u>Units</u>	<u>Marks</u>
<b>Part A Principles and Functions of Management</b>	
<b>1. Nature and Significance of Management</b>	<b>16</b>
<b>2. Principles of Management</b>	
<b>3. Business Environment</b>	
<b>4. Planning</b>	<b>14</b>
<b>5. Organising</b>	
<b>6. Staffing</b>	<b>20</b>
<b>7. Directing</b>	
<b>8. Controlling</b>	
<b>Total</b>	<b>50</b>
<b>Part B Business Finance and Marketing</b>	
<b>9. Financial Management</b>	<b>15</b>
<b>10. Financial Markets</b>	
<b>12. Consumer Protection</b>	<b>15</b>
<b>11. Marketing Management</b>	
<b>Total</b>	<b>30</b>

**Syllabus and design of question paper exactly as per CBSE Sample Paper for 2022-23**

**20. Accounts**

Syllabus and design of the paper exactly as per CBSE sample paper for 2022-23  
 Marks  
 Part A Accounting for Partnership Firms and Companies  
 Unit 1. Accounting for Partnership Firms 36

	<p>Unit 2. Accounting for Companies 24</p> <p>Part B Financial Statement Analysis</p> <p>Unit 3. Analysis of Financial Statements 12</p> <p>Unit 4. Cash Flow Statement 8</p>
<p><b>21. Physical Education</b></p>	<p><b>Unit I Management of Sporting Events</b>          Functions of Sports Events Management (Planning, Organising, Staffing, Directing &amp; Controlling)          Various Committees &amp; their Responsibilities (pre; during &amp; post)          Fixtures and its Procedures – Knock-Out (Bye &amp; Seeding) &amp; League (Staircase &amp; Cyclic)</p> <p><b>Unit II Children &amp; Women in Sports</b>          Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures          Special consideration (Menarche &amp; Menstrual Dysfunction)          Female Athletes Triad (Osteoporosis, Amenorrhea, Eating Disorders)</p> <p><b>Unit III Yoga as Preventive measure for Lifestyle Disease</b>          Obesity: Procedure, Benefits &amp; Contraindications for Vajrasana, Hastotanasana, Trikonasana, Ardha - Matsyendrasana          Diabetes: Procedure, Benefits &amp; Contraindications for Bhujangasana, Paschimottanasana, Pavan muktasana, Ardha - Matsyendrasana, Kapalabhati          Asthma: Procedure, Benefits &amp; Contraindications for Sukhasana, Chakrasana, Gomukhasana, Parvatasana, Bhujangasana, Paschimottanasana, Matsyaasana, Anulom-Vilom          Hypertension: Procedure, Benefits &amp; Contraindications for Tadasana, Vajrasana, Pavan          Muktasana, Ardha Chakrasana, Bhujangasana, Shavasana</p> <p><b>Unit IV Physical Education &amp; Sports for CWSN (Children with Special Needs - Divyang)</b>          Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)          Advantages of Physical Activities for children with special needs.          Strategies to make Physical Activities accessible for children with special needs.</p> <p><b>Unit V Sports &amp; Nutrition</b>          Concept of balanced diet and nutrition          Macro and Micro Nutrients: Food sources &amp; functions          Nutritive &amp; Non-Nutritive Components of Diet</p> <p><b>Unit VI Test &amp; Measurement in Sports</b></p>

Fitness Test – SAI Khelo India Fitness Test in school:

o Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test

o Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified Push-Ups for girls).

Computing Basal Metabolic Rate (BMR) Male calculation =  $(10 * \text{Weight(kg.)}) + (6.25 * \text{height(cm)}) - (5 * \text{age}) + 5$

Female calculation =  $(10 * \text{body weight(kg.)}) + (6.25 * \text{height(cm)}) - (5 * \text{age}) - 161$

Rikli & Jones - Senior Citizen Fitness Test

I. Chair Stand Test for lower body strength

II. Arm Curl Test for upper body strength

III. Chair Sit & Reach Test for lower body flexibility

IV. Back Scratch Test for upper body flexibility

V. Eight Foot Up & Go Test for agility

VI. Six Minute Walk Test for Aerobic Endurance

### **Unit VII Physiology & Injuries in Sports**

Physiological factors determining components of physical fitness

Effect of exercise on Muscular System

Effect of exercise on Cardio-Respiratory System

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

### **Unit VIII Biomechanics & Sports**

Newton's Law of Motion & its application in sports

• Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports

Friction & Sports

Projectile in Sports

### **Unit IX Psychology & Sports**

Personality; its definition & types (Jung Classification & Big Five Theory)

Meaning, Concept & Types of Aggressions in Sports

Psychological Attributes in Sports – Self Esteem, Mental Imagery, Self Talk, Goal Setting

### **Unit X Training in Sports**

Concept of Talent Identification and Talent Development in Sports

Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle.

Types & Method to Develop – Strength, Endurance and Speed

Types & Method to Develop – Flexibility and Coordinative Ability

**BLUE PRINT**

	Marks	No of Questions	Total
MCQ's, Objective	1	18	18
VSA	2	5	10
SA	3	5	15
SA(Case Studies)	4	3	12
LA	5	3	15
Total		34	70