

Section - A	
READING SKILLS	22 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.	12 marks
(ii) One unseen case-based passage with verbal/visual inputs like statistical data, charts etc.	10 marks
Note : The combined word limit for both the passages will be 700-750 words.	
Multiple Choice Questions / Objective Type Short Answer type (40-50 words) Questions will be asked.	
Section - B	
Creative Writing Skills	18 marks
The section has short and Long writing tasks.	
(iii) Notice up to 50 words. One out of the two given questions to be answered (4 marks : Format-1, Content : 2, Accuracy of Spelling and Grammar : 1).	
(iv) Formal/Informal Invitation and Reply up to 50 words. One out of the two given questions to be answered (4 marks : Format : 1 / Content : 2, Accuracy of Spelling and Grammar : 1).	
(v) Letters based on verbal / visual input, to be answered in approximately 120-150 words. Letter types include application for a job with bio data 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)	
(vi) 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 answered. (5 marks : Format : 1/ Organisation of Ideas : 1 / Content : 2 / Accuracy of Spelling and Grammar : 1).	
Section - C	
Literature : This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, analysis, interpretation beyond the text.	
	40 marks
Reference to the Context	
(vii) One Poetry extract out of two from the book Flamingo to assess comprehension, interpretation, analysis and appreciation.	6 marks
(viii) One Prose extract out of two from the book Vistas to assess comprehension, interpretation, analysis and appreciation.	4 marks
(ix) One prose extract out of two from the book Flamingo to assess comprehension, interpretation and analysis.	6 marks
(x) Short answer type questions (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.	10 marks
(xi) Short answer type questions, 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.	4 marks

Class - XII

ENGLISH

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

5 marks

(xiii) 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 valuative and analytical responses using incidents, events, themes as reference points. Any 1 out of 2 questions to be done.

5 marks

Prescribed Books

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

(Prose)

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

(Poetry)

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

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

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

INTERNAL ASSESSMENT

Assessment of Listening Skills - 05 marks.

Assessment of Speaking Skills - 05 marks

Project Work - 10 Marks

Class - XII**ENGLISH CORE**

Code No. 301		
Section	Competencies	Total marks
Reading Skills	Conceptual understanding, decoding, analysing, inferring, interpreting, appreciating, literary conventions and vocabulary, summarising and using appropriate formats	20+2=22
Creative Writing Skills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriacy of style and tone, using appropriate format and fluency, inference, analysis, evaluation and creativity.	20-2=18
Literature Text Books and Supplementary Reading Texts	Recalling, reasoning, appreciating a literary conventions, inference, analysis, evaluation, creativity with fluency	40
	Total	80
	Assessment of Listening and Speaking Skills	10
	Internal Assessment	
	Listening	5
	Speaking	5
	Project Work	10
	GRAND TOTAL	100

Class - XII**ENGLISH**

Month	Flamingo	Vistas	Reading and Writing
April	The Last Lesson Lost Spring My Mother at Sixty Six (Poem)	The Third Level	1. Comprehension (Unseen Passage) 2. Notice Writing
May	Revision	The Tiger King	1. Job Application
June	Deep Water	Journey to the End of the Earth	Letter to the Editor
July	The Rattrap Poem : Keeping Quiet	The Enemy	Comprehension based on case study, Invitations and Replies
Aug.	Poem : A Thing of Beauty	Revision	Revision & Practice
Sept.	Revision	Revision	Revision
Oct.	Indigo The Interview Aunt Jennifer's Tigers (Poem)	On the Face of it	Practice of Article and Report Writing
Nov.	Poets and Pancakes The Roadside Stand (Poem) Going Places	Memories of Childhood	Practice of Unseen passages and Revision of Letter to the Editor and Job Application
Dec.	Revision		
Jan.	Revision		
Feb.	Revision		
March	Exams.		

Class - XII

PUNJABI

Month	Unit / Chapter	Unit / Chapter
ngob	eftsktK - @lpeVh i r sAB: koh# (GkUh tho f; x) @ski wj b# (gH wj B f; x) ej kDh - ; MM (fg# ; i k B f; x)	ftnkeoB tke - tNkdok nykD - @T#
wJh	gi kph ; fGnkuko dh i kD-gSkD by - gi kp d/wb/s/fsTj ko (vkl n? , n? H tDi kok pdh)	ftnkeoB nykD @n# dj okUh wJh : fBN bJh
i B	rowhNk dh S\NhnK	
i bkUh	eftsktK - @ulv-ulv oiy# (Bd bkb Bpgbh) @tko; Fkj # (nfwsK glsw) ej kDh - @Bhbh# (eosko f; x dlr b) by - gi kp d/o; w-fotki (r b} ko f; x ; K)	ftnkeoB nDfvM/gb/ gok ouBk, gso - eko-ftj ko
nr ; s	eftsktK - @wbk pugB# (vkl j foGi B f; x) @hs# (fFt elvko pNktbh) ej kDh - @wVk pdk# (gH gpkF) by - gi kp dhNk b'e-y/K (; yd/t wkdgph)	ftnkeoB nDfvM/gb/ gok-ouBk gso - eko ftj ko nykD - @J#, @, #
; spo	dj okUh (gfj bh fSwkj h)	
nespo	ej kDh - @xo i k nkgD# (r b} ko f; x ; K) by - @gi kp d/b'e-Bku# (vkl i r ho f; x Bp)	ftnkeoB nykD @J#, @#, @y#, @r# gso - eko-ftj ko
Btpo	@dj okUh#	ftnkeoB nykD @x# sl@t# sE

Class - XII

PUNJABI

Month	Unit / Chapter	Unit / Chapter
d; po	gfj bk - @gh-pbv#	dj okJh
i Btoh	dj k - @gh-pbv#	
cotoh	; bkBk gohfynktK dh dj kokJh	
wkou	; bkBk gohfynktK	
<p>1) nvtK; gVB eFb (Reading Skills or Reading Section) eþ næ - 23</p> <p>2) gþktFkbh fbyD eFb (Writing Skills or Writing Section) 8</p> <p style="padding-left: 20px;">gþso 8</p> <p style="padding-left: 20px;">gþl ouBk 7</p> <p>3) ftj koe ftnkeoB eþ næ - 14</p> <p style="padding-left: 20px;">(T) tke tNkdok 3 x 1 = 3</p> <p style="padding-left: 20px;">(n) nykD 5 x 2 = 10</p> <p>4) 1) ; kfj s eþ næ - 12</p> <p style="padding-left: 20px;">(T) eftsktK (gq r ftnkfynk) 3 + 5 = 8</p> <p style="padding-left: 20px;">(n) pj ftebgh gFB (uko) 4 x 1 = 4</p> <p style="padding-left: 20px;">2) ej kDhnk eþ næ - 19</p> <p style="padding-left: 40px;">T) ftFk, ufoþo-fusoB, nbuBkswe ; ko ; pXh (125-150 Fpd uD nkXkfos) 6</p> <p style="padding-left: 40px;">n) pj -ftebgh gFB (uko) 5</p> <p style="padding-left: 40px;">J) SN/Tþso tkb/3 gFB (25-30 FpdK ftL) uD nkXkfos 8</p> <p>3) gi kph ; iGnkuko dh i kD-gSkD eþ næ - 13</p> <p style="padding-left: 20px;">T) pj ftebgh 4 gFB 5 x 1 = 5</p> <p style="padding-left: 20px;">n) ; yg Tþso tkb/gFB (70-80 FpdK ftL) uD nkXkfos 2 x 4 = 8</p> <p>gþktFkbh gVB eFb, fbyD eFb ns/ftnkeoB - 36</p> <p>; kfj s - (ej kDhnk, eftsktK ns/gi kph ; iGnkuko dh i kD-gSkD) - 44 eþ næ - 80</p>		

Class - XII**PHYSICS (Code No. 042)**

Course Structure (Theory)		
Time : 3hrs.		Max Marks : 70
Unit	Name of Unit	Mark Distribution
Unit I	Electrostatics	16
Unit II	Current Electricity	
Unit III	Magnetic Effect of Current and Magnetism	17
Unit IV	Electromagnetic Induction and Alternating Current	
Unit V	Electromagnetic Waves	18
Unit VI	Optics	
Unit VII	Dual Nature of Matter	12
Unit VIII	Atoms and Nuclei	
Unit IX	Electronic Devices	7
	Total	70

Practical	
Two experiments one from each section	7+7
Practical Record	5
One Activity from any section	3
Investigatory Project	3
Viva on experiments, activities, Project	5
Total	30

Class - XII

PHYSICS

Months		Experiment
April	Unit - I Electrostatics Ch-1 Electric charges and fields Ch-2 Potential and Capacitance	
May	Ch-3 Current Electricity, Revision and May Unit Test	1. To determine resistivity of two/three wires by plotting graph between V Vs I.
June	Ch-3 To be continued Unit - III Ch-4 Moving charges and Magnetism	2. Using metre bridge to find resistance of wire 3. To verify the laws of series combination of resistors using metre bridge. Investigatory Project file to be submitted.
July	Ch-5 Magnetism and Matter Unit-4 Electromagnetic Induction and Alternating Currents Ch-6 Electromagnetic Induction Ch-7 Alternating Current	4. To find resistance and figure of merit of a galvanometer by half deflection. Activities Act - 1 To assemble the components of given electrical circuit. Act - 2 To draw and to connect the given electrical components in a complete circuit and mark the components not in proper order and correct them.
Aug.	Unit - 5 : EM Waves, Unit - 6 : Optics Ch-8 Electromagnetic waves Ch-9 Ray Optics and Optical Instruments	5. To find F of convex lens by graphs b/w u and v or between $1/u$ and $1/v$. 6. To find angle of minimum deviation of a prism by plotting graph. Act-3 To check continuity of circuit using multimeter and measure resistance voltage AC/DC
Sept.	Ch-10 Wave Optics Unit-7 Dual nature of matter and radiation (Ch-11) Sept. Exam.	7. To find refractive index of slab using travelling microscope. 8. To draw I-V Characteristics of pn junction diode

Class - XII**PHYSICS**

Months		Experiment
Oct.	Unit-8 Atoms and Nuclei Ch-12 Atoms Ch-13 Nuclei Unit - 9 Electronic Devices Ch-14 Semi Conductor electronics, Materials, Devices and simple circuits	Act-4 To identify a diode, an LED, a resistor and a capacitor from mixed combination. Act-5 To study lateral deviation of light using a glass slab.
Nov.		Act-6 To obtain a lens combination by using two lenses. Expt. 9 To find value of V for different values of u in Case of Concave mirror of to find its focal length.
Dec.	Preboard I Exams.	
Jan.	Preboard II Exams.	
Feb.	Practical Exams. conducted by C.B.S.E.	
March	Final Exams. Conducted by C.B.S.E.	

Class - XII**CHEMISTRY**

(Code No. 043)			
Time - 3 hrs.		(Theory)	
		Max. Marks - 70	
S.No.	Title	No. of Periods	Marks
1	Solution	10	7
2	Electrochemistry	12	9
3	Chemical Kinetics	10	7
4	D and f block elements	12	7
5	Co-ordination compounds	12	7
6	Haloalkanes and Haloarenes	10	6
7	Alcohol, Phenol and ether	10	6
8	Aldehydes, Ketone and Carboxylic acid	10	8
9	Amines	10	6
10	Biomolecules	7	7
	Total	70	70

Practical Evaluation Scheme	
Evaluation Scheme for Examination	Marks
Volumetric analysis	08
Salt Analysis	08
Contest Based Experiment	06
Project Work	04
Class record & Viva	04
Total	30

Class - XII**CHEMISTRY**

Months	Unit	Activity / Experiment
April	Ch-1 Solutions Ch-6 Haloalkanes & Haloarenes	--
May	Ch-2 Electrochemistry Revision, May Unit Test	Preparation of standard solution of oxalic acid, Mohr's salt & titration against standard solution of KMnO_4 .
June	Ch-5 Co-ordination Compounds June Summer Vacations	Preparation of Inorganic compound. Potash alum and Mohr's salt.
July	Ch-10 Biomolecules Ch-7 Alcohol, Phenol & Ethers	Test for functional group present in organic compounds.
August	Ch-7 Alcohol, Phenol & Ethers (contd.)	Separation of Pigment from extract of leaves & flower by paper Chromatography.
Sept.	Revision, September Test / Term - I Ch-3 Chemical Kinetics	
Oct.	Ch-8 Aldehydes Ketones & Carboxylic acids Ch-4 d and f block elements	Characteristic test for carbohydrate & protein in given food stuff.
Nov.	Ch-9 Amines	Determination of cation and anion in a given salt.
Dec.	Revision of Syllabus and test / Preboard-I Exam.	
Jan.	Revision of syllabus / Preboard II Exam	Revision of Practicals
Feb.	Practical Exam. conducted by CBSE	
March	Final Exam. conducted by CBSE	

Class - XII**BIOLOGY - Theory (044)**

Month	Unit	Topics
April	Reproduction	Sexual reproduction in flowering plants : structure of flower, pollination, fertilization, development of seeds and fruits, apomixis & polyembryony Human Reproduction : Reproductive system in male and female, menstrual cycle, production of gametes, fertilization, implantation, embryo development, pregnancy, parturition and lactation. Reproductive Health : Problems and strategies, population and birth control, contraception and MTP; sexually transmitted diseases. Infertility.
May	Genetics & Evolution	Mendelian inheritance, chromosomal theory of inheritance, deviations from Mendelian ratio & May Unit Exams.
June	Genetics (contd.)	DNA & RNA, Genetic Material, Replication, Transcription, Genetic Code, Translation, Origin & Evolution of Man & Summer Vacation
July	Biology & Human Welfare	Basic concepts of immunology, vaccines, Pathogens, Parasites, Cancer & AIDS
August	Biology & Human Welfare	Adolescence & Drug / Alcohol abuse, Microbes in household food processing, biocontrol agents and biofertilizers.
Sept.	Biotechnology & Its Application	Principles and processes, Recombinant DNA technology, Application in Health & Agriculture, Genetically modified organisms, Biosafety Issues & September Exams.
Oct.	Ecology & Environment	Organisms and population, population and ecological adaptations, diversity and its conservation for Bio diversity, its importance and conservation, Ecosystem.

Class - XII**BIOLOGY - Practical (044)**

Blue - Print			
S.No.	Experiment	Name/Contents	Weightage
1.	Physiology (one Major)	<ul style="list-style-type: none">Isolate DNA from available plant material such as spinach, green pea seeds, Papaya etc.	5
2.	Ecology (One minor)	<ul style="list-style-type: none">Study the plant population density by quadrat method.Study the plant population frequency by quadrat method	4
3.	Slide Formation	<ul style="list-style-type: none">Prepare a temporary mount to observe pollen germinationPrepare a temporary mount of onion root tip to study mitosis.	5
4.	Spotting	4 Specimens & 3 slides	7
5.	Practical Record & Viva Voce	Class record & Viva based on that.	4
6.	Project Record & Viva Voce	Project & Viva based on that.	5
		Total	30

Class - XII**ECONOMICS (030)**

Part A	Introductory Macroeconomics	Marks
	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
		40
Part B	Indian Economic Development	
	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
		40
Part C	PROJECT WORK	20
		100

Class - XII**ECONOMICS (030)**

Months	Unit / Chapter
April	Unit 1 - National Income and Related Aggregates
May	Unit 8 - Development Experience of India Unit 4 - Government Budget
June	Unit 2 - Money and Banking
July	Unit - 3 Determination of Income and Employment Unit 7 - Human Capital Formation
Aug.	Unit 6 - Development Experience (1947 - 90) and Economic Reforms since 1991 Unit 7 - Rural Development
Sept.	Revision and First Term Examination
Oct.	Unit 7 - Employment and sustainable Economic Development
Nov.	Unit 5 - Balance of Payments and Preparation of Project Revision, Assignments and Self Evaluation Test
Dec.	Unit 3 - Pre-Board - I Examination
Jan.	Revision Assignments and Self Evaluation Test from Extra Books Pre-Board-II Examination
Feb.	Revision and Self Evaluation for Board Exam.
March	Final Examination

Class - XII**PHYSICAL EDUCATION (Code 048)**

Months	Theory
April	Unit - 1 Management of Sporting Events Unit - 10 Training in Sports
May	Unit - 8 Biomechanics and Sports Unit - 6 Test and Measurement in Sports
June	Unit - 3 Yoga as Preventive measure for lifestyle disease
July	Unit - 2 Children and Women in Sports Unit - 7 Physiology and injuries in Sports
Aug.	Unit - 5 Sports and Nutrition
Sept.	Unit - 9 Psychology and Sports
Oct.	Unit - 4 Physical Education and Sports for C.W. S.N.
Nov. & Dec.	Revision of Syllabus and Test

Question Paper Design		Theory 70			
Objective Type / MCQ	1 mark	16	x	1 =	18
Very Short Answer	2 marks	5	x	2 =	10
Short Answer I	3 marks	5	x	3 =	15
Case Study	4 marks	3	x	4 =	12
Long Answer	5 marks	3	x	5 =	15
				Total marks	70 marks

Class - XII**PHYSICAL EDUCATION (Code 048)**

Practical
<ol style="list-style-type: none">1. Physical Fitness Test : SAI Khelo India Test Brock port Physical Fitness Test (BPFT)2. Proficiency in Games and Sports Skill of any one IOA recognized sport / Game of Choice3. Yogic Practices4. Record File5. Viva Voce (Health / Games / Sports / Yoga)
<p>(Record file shall include)</p> <p>Practical :</p> <ol style="list-style-type: none">1. Fitness Test administration (SAI Khelo India Test)2. Procedure of Asanas, Benefits and contraindication for any two Asanas for each lifestyle disease.3. Anyone IOA recognized Sport/Game of choice. Labelled diagram of field and equipment. Also mention its Rules, Terminologies and Skills.

Class - XII**BUSINESS STUDIES (054)**

Months	Unit	Chapter
April	1 2	<ul style="list-style-type: none">• Nature and Significance of Management• Principles of Management
May	3	<ul style="list-style-type: none">• Business Environment• First Unit Test
June	4	<ul style="list-style-type: none">• Planning
July	5 6 7	<ul style="list-style-type: none">• Organising• Staffing• Directing
Aug.	8 9	<ul style="list-style-type: none">• Controlling• Financial Management
Sept.		Revision & 1st Term Exam.
Oct.	10 11 12	<ul style="list-style-type: none">• Financial Market• Marketing Management• Consumer Protection
Nov.		<ul style="list-style-type: none">• Revision• Project Work (as per C.B.S.E. Guidelines)
Dec.		Pre Board
Jan.		Revision
Feb. & March		Revision and Final Examination

Class - XII**BUSINESS STUDIES (054)**

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

Class - XII**ACCOUNTANCY (055)**

	Units	Marks
Part A	Accounting for Partnership firms and companies	
	Unit 1 -Accounting for Partnership firms (Ch.1 to Ch.7)	36
	Unit 2 - Accounting for companies (Ch.8 to Ch.9)	24
		60
Part B	Financial Statement Analysis	
	Unit 3 - Analysis of Financial Statements (Ch.1 to Ch.4)	12
	Unit 4 - Cash flow Statement (Ch. 5)	8
		20
Part C	Project Work Project File 12 Marks Viva Voce 8 Marks	20

Class - XII
ACCOUNTANCY (055)

Month	Chapter		Month	Chapter	
April	1 2	Part - A (Vol I) Accounting for partnership firms • Fundamental to Partnership Firms • Goodwill- Nature and Valuation	Oct.	1 2	Part - B • Financial Statements of a Company • Financial statements Analysis
May	3 4	• Change in Profit sharing Ratio. • Admission of a Partner I Unit Test	Nov.	3 4 5	Comparative & Common size statements Ratio Analysis Cash Flow Statement
June	5 6	• Retirement of a Partner • Death of a Partner	Dec.		Part - C • Project Work (As per CBSE guidelines) • Pre-Board Exam.
July	7	• Dissolution of a Partnership Firm	Jan.	Revision and Exam.	
Aug.	8 9	Part - A (Vol II) • Accounting for Share Capital • Accounting for Debentures	Feb.	Revision and Exam.	
Sept.	Revision and 1st Term Exam.		March	Final Examination (conducted by CBSE)	

Class - XII**MATHS (041)**

Unit	Topics	No. of Periods	Marks
I.	Relations and Functions	30	08
II.	Algebra	50	10
III.	Calculus	80	35
IV.	Vectors and Three - Dimensional Geometry	30	14
V.	Linear Programming	20	05
VI	Probability	30	08
		240	80

Unit I : Relations and Functions**1. Relations and Functions :****15 Periods**

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

2. Inverse Trigonometric Functions:**15 Periods**

Definition, range, domain, principal value branches. Graphs of inverse trigonometric functions.

Unit-II: Algebra**1. Matrices:****25 Periods**

Concept, notation, order, equality, types of matrices, zero matrix, transpose of a matrix, symmetric and skew symmetric. Addition, multiplication and scalar multiplication of matrices, 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 exists; (Here all matrices will have real entries).

2. Determinants:**25 Periods**

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

Unit-III: Calculus**1. Continuity and Differentiability:****20 Periods**

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

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

2. Applications of Derivatives:**10 Periods**

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 :**20 Periods**

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, simple integrals of the following type to be evaluated.

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

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

$$\int \sqrt{ax^2 + bx + c} dx,$$

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

4. Applications of the Integrals :**15 Periods**

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

5. Differential Equations :**15 Periods**

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

$$\frac{dy}{dx} + py = q, \text{ where } p \text{ and } q \text{ are functions of } x \text{ or constants}$$

$$\frac{dx}{dy} + px = q, \text{ where } p \text{ and } q \text{ are functions of } y \text{ or constants}$$

Univ - IV : Vectors and Three-Dimensional Geometry**1. Vectors :****15 Periods**

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 & application of Scalar (dot) product of vectors, Vector (cross) product of vectors.

2. Three - dimensional Geometry :**15 Periods**

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

Unit - V : Linear Programming**1. Linear Programming :****20 Periods**

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

Unit - VI : Probability**1. Probability :****30 Periods**

Conditonal probability, multiplication theorem on probability, independent events, total probability, Baye's theorem, Random variable and its probability distribution, mean of random variable.

Class - XII**MATHS**

Months	Chapter
April	Ch-1 Relation and Function Ch-2 Inverse Trigonometry Ch-3 Matrices Ch-4 Determinant
May	Ch-5 Continuity and Differentiability Ch-6 Application of the Derivative
June	Summer Vacation
July	Ch-6 Application of the Derivative (to be continued) Ch-7 Integration Ch-8 Application of Integrals
Aug.	Ch-9 Differential Equation Ch-10 Vectors
Sept.	Half Yearly Examinations
Oct.	Ch-11 Three dimensional Geometry Ch-12 Linear Programming Ch-13 Probability
Nov.	Revision
Dec.	1st Pre-Board Exam.
Jan.	2nd Pre-Board Exam.
Feb.	Revision
March	Final Examination conducted by CBSE.

Class - XII**MATHS**

1. No chapter wise weightages Care to be taken to cover all the chapters
2. The above template is only a sample. Suitable internal variations may be made for generating similar templates keeping the overall weightage to different form of questions and typology of questions same.

Choice(s) :

There will be no overall choice in the question paper.

However, 33% internal choices will be given.

Internal Assessment	20 Marks
Periodic Tests (Best 2 out of 3 test conducted)	10 Marks
Mathematics Activities	10 Marks

Class - XII**MUSIC VOCAL (Code No. 034)**

Months	Theory	Activity
April	Alankar, Kan, Raag Bhairav, Time Theory of Raag Alankar in Jhap Taal, Rupak Taal	Singing of Aroh, Avroh, Pakad, Raag Bhairav, Drut Khayal
May	Jhap Taal, Ustad Bade Gulam Ali Ji, Tarana in Rag Bhairav	Practice of Jhap Taal singing Aroh Avroh, Pakad of Raag Bhairav.
June	Gamak, Meend, Alap, Sangeet Ratnakar	Singing Raag Bhairav
July	Slow Khayal in Raag Bhairav. Raag Bageshwari	Singing Raag Bhairav
August	Notation of Raag Bageshwari, Rupak Taal, Khatka, Murki, Life Sketch of Fyaz Khan	Swar Practice of Raag Bageshwari, Bhairav
Sept.	Exams.	
Oct.	Gram, Murchna, Taan, Sangeet Parjat, Taal Dhamaar Life Sketch of Pdt. Krishan Rao Ji	Tarana Raag Bhairav, Slow Khayal in Raag Bhairav
Nov.	Raag Malkauns, Drut Khayal in Raag Malkauns, Tuning of Tanpura and its parts	Taal Dhamaar, Raag Malkauns
Dec.	Exam.	Practical
Jan.	Revision	Practical
Feb.	Revision	Practical

Class - XII**POLITICAL SCIENCE**

Months	Unit/Chapter	
	Part A - Contemporary World Politics	
April	1) The End of Bipolarity 2) Contemporary centers of Power 3) Contemporary South Asia	6 6 6
May	Revision & Mid Term Exams.	
June	4) International Organizations Summer Vacations	6
July	5) Security in the Contemporary World 6) Environment and Natural Resources 7) Globalisation	6 6 6
August	Part - B Politics in India since Independence 1) Challenges of Nation - Building 2) Era of one Party Dominance 3) Politics of Planned Development	6 4 2
Sept.	4) India's External Relations 5) Mid Term Examination	6
Oct.	6) Challenges to and Restoration of the Congress System 7) The crisis of Democratic Order	4 4
Nov.	8) Regional Aspiration 9) Recent development in Indian Politics	6 8
Dec.	Revision & Dec. Exams.	
January	Revision & Pre Board	
February	Pre-Board	
March	Board (CBSE)	

Months	Unit/Chapter																						
	<p style="text-align: center;">BLUE PRINT</p> <p>Theory : 80 marks Time : 3 hrs.</p> <table> <tr> <th>Type of questions</th><th>No. of questions</th><th>Marks</th></tr> <tr> <td>Very Short Questions</td><td>20 x 1</td><td>= 20</td></tr> <tr> <td>V, Short type questions</td><td>3 x 2</td><td>= 06</td></tr> <tr> <td>Short Answer I</td><td>4 x 4</td><td>= 16</td></tr> <tr> <td>Long answer (based on passage)</td><td>3 x 5</td><td>= 15</td></tr> <tr> <td>Map Questions or Picture</td><td>1 x 5</td><td>= 05</td></tr> <tr> <td>Long Answer II</td><td>3 x 6</td><td>= 18</td></tr> </table>	Type of questions	No. of questions	Marks	Very Short Questions	20 x 1	= 20	V, Short type questions	3 x 2	= 06	Short Answer I	4 x 4	= 16	Long answer (based on passage)	3 x 5	= 15	Map Questions or Picture	1 x 5	= 05	Long Answer II	3 x 6	= 18	
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Class - XII**COMMERCIAL ART (052)**

Units		Periods	Marks
1	The Rjasthani and Pahari Schools of Miniature Painting	24	10
2	The Mughal and Deccan Schools of Miniature Painting	24	10
3	The Bengal School of Painting and the Modern Trends in Indian Art	24	10
		72	30

Unit 1 : The Rajasthani and Pahari Schools of Miniature Painting
(16th Century A.D. to 19th Century A.D.)

18 Periods

A brief introduction to Indian Miniature Schools : Western-Indian, Pala, Rajasthani, Mughal, Central India, Deccan and Pahari.

(A) The Rajasthani School :

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

Title	Painter	Sub-School
Maru-Ragini	Sahibdin	Mewar
Chaugan Players	Dana	Jodhpur
Krishna on swing	Duruddin	Bikaner
Radha (Bani-Thani)	Nihal Chand	Kishangarh
Bharat Meets Rama at Chitrakuta	Guman	Jaipur

(B) The Pahari School :

Class - XII

COMMERCIAL ART (052)

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

Title	Painter	Sub-School
Krishna with Gopis Nand, Yashoda and Krishna with Kinsmen going to Varindavana	Manaku Nainsukh	Basohli Kangra

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

18 Periods

(A) The Mughal School

- (1) Origin and development
- (2) Main features of the Mughal School
- (3) Study and appreciation of the following Mughal Paintings :

Title	Painter
Krishna Lifting Mount Govardhana	- Miskin
Falcon on a Bird-Rest	- Ustad Mansoor
Kabir and Raidas	- Ustad Faquirullah Khan
Marriage procession of Dara Shikoh	- Haji Madni

(B) The Deccan School

- (1) Origin and development
- (2) Main features of the Deccan School
- (3) Study and appreciation of the following Deccan Paintings :

Title	Painter	Sub-School
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Hazrat Nizamuddin Auliya and Amir Khusro	Unknown	Hyderabad
Chand Bibi playing Polo (Chaugan) Players	Unknown	Golkonda

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

24 Periods

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

- (A) National Flag of India and the Symbolic significance of its forms and the colours.
- (B)
 - (1) Introduction to the Bengal School of Painting
 - (i) Origin and development of the Bengal School of Painting
 - (ii) Main features of the Bengal School of Painting
 - (2) Contribution of Indian artists in the struggle for National Freedom Movement
 - (3) Study and appreciation of the following paintings of the Bengal school :
 - i) Journey's End - Abanindranath Tagore
 - ii) Radhika - M.A.R. Chughtai
 - iii) Meghdoot - Ram Gopal Vijaivargiya
 - iv) Shiva & Sati - Nand Lal Bose
- (C) The Modern Trends in Indian Art
 - Introduction
 - (1) Study and appreciation of the following work of contemporary (Modern) Indian Art
 - (a) Paintings :
 - i) Rama Vanquishing the Pride of the Ocean - Raja Ravi Varma
 - ii) Mother and child - Jamini Roy
 - iii) Haldi Grinders - Amrita Sher Gill
 - iv) Mother Teresa - M.F. Husain
 - (b) Graphic - prints :
 - i) Children - Somnath Hore
 - ii) Devi - Jyoti Bhatt
 - iii) Of Walls - Anupam Sud

- iv) Man, Woman and Tree - K. Laxma Goud
- (c) Sculptures :
 - i) Triumph of Labour - D.P. Raychaudhary
 - ii) Santhal Family - Ramkinker Vaij
 - iii) Cries Un-heard - Amar Nath Sehgal
 - iv) Ganesha - P.V. Janaki Ram

Class - XII

PRACTICAL

70 marks

Time : 6 Hours (3+3)

Unitwise Weightage

Units		Periods	Marks
1	Illustration	50	25
2	Poster	50	25
3	Portfolio Assessment	48	20
		148	70

Unit 1 : Illustration

25 marks 50 periods

Study of techniques of illustration on given subjects and simple situations supported by drawing from life and outdoor sketching in different media suitable for printing.

Unit 2 : Poster

25 marks 50 periods

Making a poster with specified data and slogan on a given subject in two or three colours.

Unit 3 : Port Folio Assessment

20 marks 48 periods

- (a) Record of the entire years performance from sketch to finished product. (10)
- (b) Four selected drawings in any media done during the year including minimum of two illustrations (05)
- (c) Two selected posters in chosen subject. (03)
- (d) Two selected works based on Indian Folk Art (02)

Note : The time table to be so framed as to allow the students to work continuously for minimum of two periods at a stretch.

Guidelines for Evaluation of Practical

Marking Scheme :

Part I : Illustrations

(i)	Composition including quality of drawing	10	
(ii)	Emphasis on the subject with a specific situation	05	20 marks
(iii)	Reproducing quality and overall impression	10	

Part II : Poster

(i)	Layout and Lettering	10	
(ii)	Emphasis on the subject	05	20 marks
(iii)	Proper colour scheme, overall impression and reproducing quality	10	

Part III : Portfolio Assessment

(a)	Record of the entire year's performance from sketch to finished product.	10	
(b)	Five selected drawings in any media including minimum of two illustrations.	05	25 marks
(c)	Two selected posters in chosen subjects.		

1. Format of the questions :

Part I : Illustration

Make an illustration in black and white in any colour media on any one of the following five subjects with a specific situation.

Size of the illustration : 30 cm x 22 cm.

Note : Any five suitable subjects or illustration, decided by the external and internal examiners jointly in accordance with the illustrations are to be mentioned here.

Part II : Poster

Prepare a poster-design with specified data and slogan in English/Hindi/Regional Language, in three flat colours, on any one of the following five subjects. The designing of the poster should have balanced use of typography and illustration. Size of the Poster-design : 1/2 imp size.

3. (A) Instructions to decide the subjects for illustration :

1. The examiners (Internal and External) are to select/decide five suitable subjects.
2. Each subject should be given a specific situation, which is a main characteristic of an illustration.
3. Each subject should be so designed that the candidate may get a clear-cut idea of the subject and they can illustrate a specific situation based on given subject areas.
4. The examiners (Internal and External) are free to decide the subjects but these should be according to the standard of the class XII and environment of the school/candidates.

Some identified areas of the subjects for illustration are given below, in which some more areas may be added if needed.

Subject with a specific situation :

- (i) Family and friends in daily life.
- (ii) Professionals/professions
- (iii) Games and sports
- (iv) Nature
- (v) National events and celebrations
- (vi) Religious events and festivals
- vii) Culture-Dance, Drama, Music and Art.

(B) Instructions to decide the subjects for Poster-design :

1. The examiners (Internal and External) are to select/decide five subjects suitable for poster design.
2. Each subject should be given a specified data and slogan.
3. The data and slogan should be so framed/designed that the candidates may get a clear-cut idea of the subject.
4. The examiners (Internal and External) must give the subjects data and slogan according to the standard of Class XII and environment of the school/candidates.

Some identified areas for poster-design are given below, in which some more areas/subjects may be added.

1. For Advertisement on ;
 - i) Excursion/Tourism

- ii) Cultural activities
 - iii) Community and nature development
 - iv) Ideas-Social, national and International
 - v) Commercial products
2. Instructions to the examiners :
1. Candidates should be given one hour break after first three hours.
 2. Work of the candidates for Parts I, II and III is to be evaluated on the spot by the and internal examiners jointly.
 3. Each work of parts I, II and III, after assessment, is to be marked as examined and signed by the external and internal examiners.

Commercial Art (Code 052)					
Total Marks : 30			Time : 2 hours		
Typology of Questions	Very Short Answer (VSA)	Short Answer (SA)	Long Answer (LA)	Total Marks	% Weightage
Remembering Based	(1) 5		(1) 5	10	35%
Understanding Based			(1) 5	5	20%
Application Based	(1) 5	-		5	15%
High order Thinking Skills Based		(1) 5		5	15%
Evaluation Based		(1) 5		5	15%
Total	10	10	10	30	100%

Class - XII**INFORMATICS PRACTICES (065)**

Unit No.	Unit Name	Marks
1	Data Handling using Pandas and Data Visualization	25
2	Database Query using SQL	25
3	Introduction to Computer Network	10
4	Societal Impacts	10
	Practical	30
	Total	100

Practical Marks Distribution

S.No.	Unit Name	Marks
1	Programs using Pandas and Matplotlib	8
2	SQL Queries	7
3	Practical file (minimum of 15 programs based on Pandas, 4 based on Matplotlib and 15 queries must be included)	5
4	Project work	5
5	Viva-Voice	5
	Total	30

Class - XII**INFORMATICS PRACTICES (065)**

Month	Unit	Topics
April	Unit-1 : Data Handling using Pandas and Data Visualization	<ul style="list-style-type: none">• Introduction to Python libraries - Pandas, Matplotlib• Data structures in Pandas - Series and Data Frames.• Series : Creation of Series from ndarray, dictionary, Scalar value; Mathematical Operations, Head and Tail Functions, Indexing and Slicing.• Data Frame : Creation - from dictionary of series, list of dictionaries, Operations on rows and columns : add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing.
May	Unit-1 : Data Handling using Pandas and Data Visualization	Text/CSV files; display; Iteration; Importing/Exporting Data Between CSV files and DataFrames Data Visualization : Purpose of plotting; drawing and saving following types of plots using Matplotlib-line plot, bar graph, histogram, Customizing plots : adding label, title and legend in plots.
June	Summer Vacations	
July	Unit-2 : Database Query using SQL	Math functions : POWER(), ROUND (), MOD(), Text functions : UCASE() / UPPER(), LCASE() / LOWER(), MID() / SUBSTRING() / SUBSTR(), LENGTH(), LEFT(), RIGHT(), 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 joins
August	Unit-3 : Introduction to Computer Networks	Introduction to networks : Types of network : 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.

Class - XII**INFORMATICS PRACTICES (065)**

Month	Unit	Topics
August		Website : Introduction, difference between a website and webpage, static vs dynamic webpage, web server and hosting of a website. Web Browsers; Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.
Sept.	Term I Examination	
Oct.	Unit-4 : Societal Impacts	Digital footprint, net and communication etiquettes, data protection, intellectual property right (IPR), plagiarism, licensing and copyright, free and open source software (FOSS), cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. E-waste : hazards and management. Awareness about health concern related to the usage of technology.
Nov.	Project work + Revision	
Dec.	Tests and Pre-boards	
Jan.	Pre-boards	
Feb.	Final Practical and Revision	
March	Board Exams.	

Class - XII**APPLIED MATHEMATICS**

Month	Unit	Topics
April	I	Numbers, quantification and numerical applications.
May	II	Algebra
June	Summer Vacation	
July	III	Calculus (Differentiation and its applications, integration and its applications, Differential equations and modeling.
August	V, VIII	Inferential statistics, linear programming.
September	Revision and Exams.	
October	IV	Probability distributions.
November	VI, VII	Index numbers and time based data, Financial mathematics.
December	Revision and Exams.	
January		
February		
March		

Class - XII**PSYCHOLOGY**

Month	Unit	Topics
April	Chapter-1 Variations in Psychological Attributes	<ul style="list-style-type: none">• 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, Iriarchic Theory of Intelligence; Theory of Multiple Intelligence.• Individual Differences in Intelligence• Culture and Intelligence• Emotional Intelligence• Special Abilities : Aptitude :- Nature and Measurement• Creativity
May	Chapter-2 Self and Personality	<ul style="list-style-type: none">• Introduction• Self and Personality• Concept of Self• Cognitive and Behavioural aspect of self• Culture and Self• Concept of personality• Major Approaches to the study of personality• Type Approaches• Trait Approaches• Psychodynamic Approach and post-freudian approaches• Behavioural Approach• Cultural Approach• Humanistic Approach• Assessment of Personality• Self-report Measures• Projective Technique• Behavioural Analysis

Class - XII**PSYCHOLOGY**

Month	Unit	Topics
June	Chapter-3 Meeting Life Challenges	<ul style="list-style-type: none">• Introduction• Nature, Types and sources of stress• Effects of stress on Psychological functioning and health• Stress and Health• General Adoption Syndrome• Stress and Immune System• Lifestyle• Coping with stress• Stress Management Techniques• Promoting positive health and well being• Life Skills• Positive Health
	Chapter-4 Psychological Disorders	<p>Introduction Concept of Abnormality and Psychological Disorder Historical Background Classification of Psychological Disorder Factors underlying Abnormal Behaviour Major Psychological Disorders Anxiety Disorder Obsessive - Compulsive and Related Disorder Trauma - and - stressor - Related disorder. Somatic symptoms and related disorders Dissociative Disorder Depressive Disorder Bipolar and Relative Disorder Schizophrenia Spectrum and other Psychotic Disorders. Neurodevelopmental Disorders Disruptive, Impulse - control and conduct Disorders Feeding and Eating Disorders Substance - Related and Addictive Disorders.</p>

Class - XII**PSYCHOLOGY**

Month	Unit	Topics
July	Chapter-5 Therapeutic Approaches	Nature and Process of Psychotherapy Therapeutic Relationship Types of Therapies Behaviour Therapy Cognitive Therapy Humanistic - Existential Therapy Alternative Therapies Factors contributing to healing in Psychotherapy Ethics in Psychotherapy Rehabilitation of the Mentally ill
August	Chapter-6 Attitude and Social Cognition	Introduction Explaining Social Behaviour Nature and Components of Attitudes Attitude formation and change Attitude Formation Attitude Change Attitude - Behaviour Relationship Prejudice and Discrimination Strategies for Handling Prejudice
September	Revision of Term I Syllabus	
October	Chapter-7 Social Influence and Group Processes	Introduction Nature and formation of groups Type of Groups Influence of group on Individual Behaviour Group Polarisation
Nov.-Dec.		Revision
Jan.- Feb.		Pre-Board I & II

Class - XII

PSYCHOLOGY

Month	Practical
May	Practical 1
June	Practical 2
July	Practical 3
August	Practical 4
October	Practical 5