Class - XI

ENGLISH (301)

Unit-wise Weightage

Section	Area of Learning	Marks
A	Reading Skills	26
B	Writing Skills and Grammar	23
C	Literature & Long Reading Text	31
D	English Projects + ALS	10+5+5=20

Section A: Reading Comprehension

- Very short answer and MCQ types questions:
- Two unseen passages (including poems) with a variety of questions including 4 marks for vocabulary such as word formation and inferring meaning. The total range of the 2 passages including a poem or a stanza, will be around 900-1000 words.
- 550-600 words in length (for note-making and summarising)
- An unseen poem of about 28-35 lines
- The passages could be of any one of the following types:
- Factual passages, e.g., illustrations, description, reports
- Discursive passages involving opinion, e.g., argumentative, persuasive
- Literary passages e.g. extracts from fiction, biography, autobiography, travelogue, etc. In the case of a poem, the text may be shorter than the prescribed word limit.

SECTION B: Writing Skills and Grammar

Writing

Short Answer Questions: Based on notice/ poster/ advertisement

Long Answer Questions: Letters based on verbal/visual input. It would cover all types of letters.

Very Long Answer Question: Composition in the form of debate and speech.

Grammar

Different grammatical structures in meaningful contexts will be tested. Item types will include gap filling, sentence re-ordering, dialogue completion and sentence transformation. The grammar syllabus will include determiners, tenses, clauses, modals and Change of Voice. These grammar areas will be tested using the following short answer type and MCQ type questions:

- Error Correction, editing tasks
- Re-ordering of Sentences
- Transformation of sentences

Class - XI ENGLISH

Month	Hornbill Book	Snapshots	Reading	Writing
April	The Portrait of a Lady	The Summer of the Beautiful White House	Comprehension Present and Past Indefinite Tense	Poster Making
May	A Photograph, We're not afraid to Die... if we can be together		Comprehension Future Indefinite Tense	Poster Making Practice
June	Discovering Tut : The Saga Continues	The Address	Revision of Indefinite Tense	
July	The Laburnum Top The Voice of the Rain		Note Making, Continuous Tense (Present, Past and Future)	Advertisement situation vacant, situation wanted, For sale Speech Writing
August	The Adventure	Revision	Practice of Indefinite and Continuous tense	Practice of Poster Making and advertisement writing speech writing.
September	**Revision Term I Examination**			
October	Childhood	Mother's Day	Tenses (Perfect, Perfect Continuous) Comprehension	Advertisements Missing, Lost & Found Tour & Travels, Debate Writing
November	Silk Road	Birth	Clauses Simple Sentences Compound Sentences	Advertisements Educational
December	Father to Son		Complex Sentences Transformation of sentences	Debate Writing Practices
January	Revision	The Tale of Melon City	Revision	Practice of Writing Section
February	**Revision and Final Examination**			
March	**Final Examination**			

Class - XI

PUNJABI (104)

fbysh gohfynk bJh ;wK 3 xN

fbysh gohfynk - 80 ne
nKsfoe wbKeD - 20 ne
eb - 100 ne

Month	Unit / Chapter
ngb	**berhs - ;jkr, pbhnK**
wJh	**ds eEktK - goB Grs, jho oKMk, pe, obt, phwk ; tktK Bkb ;pfXs tke (1-5 jo ; tk ftu)** **d\soh Fpdktbh,** (A, B, C) **wjkto 1-20**
iB	**rowh dhnK SNhnK**
ibkJh	**berhs - xVhnK, f;mDhnK** **ds eEktK - okiko;kb, dbk GNh, d\soh Fpdktbh** (D-G)
nr;s	**ty-ty ftfFnK Bkb ;pXs Fpdktbh** (A, B, C) **wjkto - 21-40, by, gso**
;spo	**djokJh** (Term - I Examination)
nespo	**berhs - Ngk, pMkosK** **vke ; tktK Bkb ;pfXs tke (tke 6-10)** **ty-ty ftfFnK Bkb ;pfXs Fpdktbh** (D-I) **d\soh Fpdktbh** (H-M)
Btpo	**ghs eEktK - fwoik ;kfjpK** **efgTNo Bkb ;pfXs tke (6-10)** **fJFfsjko, phwk ; tktK Bkb ;pfXs tke (6-10)**

Class - XI **PUNJABI (104)**

Month	Unit / Chapter
d;po	;dk gso, obt ;tktK Bkb ;pfXs tke (6-15) d\soh Fpdktbh (N-S) ty-ty ftfynK Bkb ;pfXs Fpdktbh (J-Q) pe Bkb ;pfXs tke (6-15)
iBtoh	berhs - Ybk, wkjhnk by, gso (;gkdeh) d\soh Fpdktbh (T-Z) ty-ty ftfFnK Bkb ;pfXs Fpdktbh (R-Z)
cotoh	djokJh
wkou	;bkBk gohfynk

Class - XI **PUNJABI (104)**

fbysh gohfynk - 80 ne
nksfoe wbkeD - 20 ne
eb - 100 ne

1) **nvtk; gVB eFb** **(23) ne**

ikDekoh Gogo fJe nDfvmk gok s T; ~ ;pfXs 8 gFB **(**1 x 8 = 8**)**

2) **gGktFkbh fbyD eFb**

1) **n]pkok d ;gkde ~ gso (uD nkXkfos)** **7**

2) **;wkfie, ;fGnkukoe ns wBoiB ftF ;pXh 200-250 Fpdk ftu by** **8**

3) **nroih s gikph ftu nBtkd (bk}wh gikph gkm-gse d nkXko s)** **(28) ne**

1H **d\soh Fpdktbh (nfs SN Tsok tkb gFB) (uD nXkfos)** **5 x 1=5**

2H **ty-ty ftfFnk Bkb ;pfXs Fpdktbh (nfs SN Tsok tkb gFB) uD nkXkfos** **5 x 1=5**

3H **pe, obt, vke, phwk-; tktk s efgTNo Bkb ;pfXs tke (SN Tsok tkb gFB) (uD nkXfkos)** **4 x 2=8**

4) **wjkto (noE ;gFN eod jJ tke pDkTDk) uD nkXkfos** **1 x 5=5**

5) **fJFfsjko$;dk gso (uD nkXkfos) (50 Fpdk ftu)** **5**

gikph be-;kfjs (bk}wh gikph 11 gkm g;se s nkXkfos) **(29) ne**

1) **be rhsk (;jkr, xVhnk, f;mDhnk, Ngk) ftu pjftebgh gFB** **6 x 1=6**

2) **be rhsk (pbhnk, Ybk, wkjhnk, pMkosk) ftu pjftebgh gFB** **6 x 1=6**

3) **be rhsk #s 40-50 Fpdk ftu ;yg Tso tkb gFB (uD nkXkfos)** **3 x 3=9**

4) **ds eEktk ns ghs eEktk #s 25-30 Fpdk ftu SN Tsok tkb gFB (uD nkXkfos)** **4 x 2=8**

Class - XI **PHYSICS (042)**

Months	Unit / Chapter	Experiment / Activity No.
April	**Unit - I** Ch-2 Units and Measurements	
May	**Unit - II Kinematics** Ch-3 Motion in a straight line May Test Ch-4 Motion in a Plane	1. To measure diameter and volume of small spherical body using vernier callipers 2. To measure diameter of wire using screw guage
June	**Unit - III Laws of motion** Ch-5 Laws of motion	
July	Ch-5 Contd. **Unit - IV Work, Energy and Power** Ch-6 Work, Energy and Power	3. To determine radius of curvature of spherical surface by spherometer 4. To study relation between force of limiting friction and normal reaction.
Aug.	**Unit-V Motion of system of particles and Rigid body** Ch-7 System of particles and Rotational Motion	
Sept.	Revision of first terminal exams.	
Oct.	**Unit VI Gravitation** Ch-8 Gravitation **Unit VII Properties of Bulk Matter** Ch-9 Mechanical Properties of solids Ch-10 Mechanical Properties of fluids Ch-11 Thermal properties of matter	5. To determine Young's modulus of a given wire. 6. To find force constant of a helical spring by plotting graph. 7. To study relation between frequency and length of a given wire under constant tension using sonometer

Class - XI PHYSICS

Months	Unit / Chapter	Experiment / Activity No.
Nov.	**Unit VIII Thermodynamics** Ch-12 Thermodynamics **Unit IX** Behaviour of perfect gases and kinetic theory of gases Ch-13 Kinetic Theory	8. To study the relation between length of wire and tension for constant frequency using sonometer.
Dec.	Revision and IInd terminal exams.	1. To make paper scale 2. To plot graph using given values
Jan.	Unit X Oscillations and waves Ch-14 & Ch-15	
Feb.	Revision and Final Exams.	

Class - XI PHYSICS (Code No. 042)

Course Structure
(Theory)

Time : 3hrs. **Max Marks : 70**

Unit	Name of Unit	Mark Distribution
Unit I	Physical world and Measurement	23
Unit II	Kinematics	
Unit III	Laws of Motion	
Unit IV	Work, energy and Power	17
Unit V	Motion of System of Particles	
Unit VI	Gravitation	
Unit VII	Properties of Bulk Matter	20
Unit VIII	Thermodynamics	
Unit IX	Behaviour of Perfect gases and Kinetic theory of gases	
Unit X	Oscillations & Waves	10
	Total	**70**

Class - XI **PHYSICS**

Practical	
1. Two experiments one from each section	7+7
2. Practical Record	5
3. One Activity	3
4. Investigatory Project	3
5. Viva	5
Total	**30**

Class - XI CHEMISTRY (043)

Months	Chapter	Experiments
April	Unit 1 - Some basic concept of chemistry Unit 2 - Structure of Atom	
May	Unit 3 - Classification of Elements and periodicity in properties. Revision and May Test	
June	Unit 4 - Chemical bonding and structure	
July	Unit 4 - Chemical bonding and structure continue Unit 8 - Organic Chemistry : Some basic concept principles and techniques	Crystallisation of $CuSO_4$ from given Impure sample of blue vitriol Preparation of standard solution of oxalic and preparation of standard solution of Na_2CO_3
August	Unit 8 - Organic Chemistry : Some basic concept principles and techniques (continue...) Unit 9 - Hydrocarbon - Alkane, Alkene, Alkynes	
Sept.	Revision and I Terminal Exam.	
Oct.	Unit 9 - Hydrocarbon - Arenes Unit 7 - Redox Reactions Unit 5 - Thermodynamics	Determine the strength of given solution of NaOH by titrating it against standard solution of $C_2H_2O_4$ solution. Titration of *HCl* Vs Na_2CO_3 Salt Analysis
Nov.	Unit 5 - Thermodynamics Contd. Unit 6 - Equilibrium	
Dec.	Revision of Syllabus, IInd Terminal Exam.	
Jan.	Revision of Syllabus	
Feb.	**Final Exam of Final Practical**	

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 - XI **CHEMISTRY**

Time - 3 hrs.	(Code No. 043) (Theory)	Max. Marks - 70
S.No.	**Unit**	**Marks Distribution**
1	Unit-1 Some basic concept of Chemistry	7
2	Unit-2 Structure of atom	9
3	Unit-3 Classification of Element and Periodicity in properties	6
4	Unit-4 Chemical Bonding and Molecular structure	7
5	Unit-5 Chemical Thermodynamics	9
6	Unit-6 Equilibrium	7
7	Unit-7 Redox Reaction	4
8	Unit-8 Organic Chemistry some basis principle and techniques	11
9	Unit-9 Hydrocarbon	10

Class - XI BIOLOGY (044)

Months	Unit	Topics
April	Human Physiology	• Breathing & Respiration : Respiratory system in humans, Disorders related to respiration.
May	Human Physiology (Contd.)	• Body fluids & circulation - structure and functions of Human heart. • Excretory products and their elimination : Human excretory system and related disorders
June	Human Physiology (Contd.)	• Locomotion & Movement : Skeletal system and Muscular system, joints • Neural control & Hormonal control : Human Nervous & Endocine system & disorders
July	Plant Physiology	• Photosynthesis
Aug.	Plant Physiology (Contd.)	• Respiration in plants - Exchange of Gases, cellular, respiration TCA Cycle, Glycolysis, ETC Chain. • Plant Growth & Development - Seed germination, phases of plant growth, differentiation, dedifferentations Growth regulators; Auxins, Gibberellin, Cytokinin, Ethylene, ABA.
Sept.	Revision Cell Structure & Function	September Exams. Cell theory as the basic unit of Life; Structure of prokaryotic and Eukaryotic cell : Plant cell and Animal Cell; Structure and function of cell organelles.
Oct.	Cell Structure & Function (contd.)	• Chemical constitutions of living cells; Biomolecules - structure and function of proteins, Carbohydrates, lipids, DNA. • Cell cycle, Cell Division, Mitosis, Meiosis & their significance.
Nov.	Structural Organisation in Animals & Plants	• Morphology and Anatomy of flowering plants.
Dec.	Structural Organisation in Animals & Plants (contd.)	Animal tissues morphology, anatomy and functions of different systems of frog

Class - XI BIOLOGY

Months	Unit	Topics
Jan.	Diversity in Living Organisms	• Need for classification, Binomial Nomenclature • Five Kingdoms of classification, Lichens, Viruses, Viroids • Salient features of Plant Kingdom (Algae, Bryophyta, Pteridophyta, Gymnospermae) • Salient features of Animal Kingdom (non chordates up to phyla & chordates upto class)
Feb.	Revision	Final Exams.

Class - XI BIOLOGY PRACTICAL

Months	Topics
May	• Test for presence of urea in urine. • Test for presence of sugar in urine. • Test for presence of albumin in urine. • Test for presence of bile salts in urine. **Spotting** • Human Skeleton and different types of joints with the help of virtual images/models only
June	• Parts of compound imcroscope.
July	• Separation of plant pigments through chromatography
Aug.	• Study of rate of respiration of leaves • Study of the rate of respiration in flower buds / leaf tissue and germinating seeds.
Sept.	• Study of osmosis by potato osmometer • Study of plasmolysis in epidermal peels (eg. Rhoeo/ lily leaves or flashy scale leaves of onion bulb)
Oct.	• Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials. **Spotting -** • Mitosis in onion root tip cells and animal cells (grasshopper) from permanent slides.
Nov.	• Preparation and study of T.S of dicot and monocot roots and stems (primary) • Study of distribution of stomata on the upper and lower surfaces of leaves. **Spotting -** • Different types of inflorescence (cymose and racemose)
Dec.	• Spotting - • Specimens / slides/ modes and identification with reasons - Bacteria, Oscillatoria, spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant and one lichen. • Virtual specimens / slides and models - identifying features of - Amoeba, Hydra, liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honeybee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.

Class - XI BIOLOGY PRACTICAL

Months	Topics
Jan.	Revision
Feb.	Revision & Final Practicals

Experiment	Name of the Experiment	Weightage
Physiology (one major)	To study osmosis through potato osmometer. Study of floral parts, Separation of plant pigments by paper chromatography. Test of presence of sugar, starch & fats in proteins plants and animals.	5
Physiology (one minor)	Test of presence of urea, sugar, albumin, bile salts in urine, Rate of respiration in upper & lower leaves, in flower buds/germinating seeds.	4
Slide formation	Preparation and study of T.S Dicot root and stem alongwith T.S Monocot root and stem. Study of Plasmolysis in epidermal peels or Study of distribution of stomata in upper and lower epidermis.	5
Spotting	4 specimens and 3 slides	7
Practical Record & Viva Voce	Class record and viva based on that	4
Project Record and Viva Voce	Project & Viva based on that	5
	Total	**30**

Class - XI **ECONOMICS (030)**

Months	Book	Chapter	Chapter Name
April	Stats Micro Micro	Ch-1 Ch-1 Ch-2	Concept of Economics and Significance of stats in Economics Economics and Economy Central Problems of an Economy
May	Stats	Ch-9 Ch-10	Measures of Central Tendency - Artihmetic Mean Measures of Central Tendency - Median
June	Stats	Ch-10	Measures of Central Tendency - Mode
July	Micro	Ch-3 Ch-4 Ch-5 Ch-6	Consumer's Equilibrium - Utility Analysis Consumer's Equilibrium - Indifference curve analysis Theory of Demand Price Elasticity of Demand
August	Stats	Ch-11 Ch-2 Ch-3 Ch-4	Correlation Collection of Data Census and Sample Methods of Collection of Data Organisation of Data
Sept.	Revision and First Term Examination		
Oct.	Stats Micro	Ch-5 Ch-6 Ch-7 Ch-8 Ch-7 Ch-8	Presentation of Data - Textual & Tabular Presentation Diagrammatic Presentation of Data-Bar diagrams and Pic Diagrams Frequency Diagrams - Histogram, Polygon & Ogive Arithmetic line-graphs or Time Series Graphs Production function & Returns to a factor Concepts of Cost
Nov.	Micro	Ch-9 Ch-10 Ch-11 Ch-12	Concept of Revenue Producer's Equilibrium Theory of Supply Forms of Market
Dec.	Stats	Ch-12	Index Numbers + December Exams

Class - XI ECONOMICS (030)

Months	Book	Chapter	Chapter Name
Jan.	Micro	Ch-13	Market equilibrium under perfect Competition
Feb. & March	Revision and Final Examination		

Blue Print of Class XI - Commerce		
Unit	Marks	
Part A	**Statistics for Economics**	
	1. Introduction	
	2. Collection, Organisation and Presentation of Data	15
	3. Statistical Tools and Interpretation	25
		40
Part B	**Introductory Microeconomics**	
	1. Introduction	04
	2. Consumer's Equilibrium and Demand	14
	3. Producer Behaviour and Supply	14
	4. Forms of Market and Price Determination under perfect competition with simple applications	08
		40
	Project Work	20
	Total	**100**

Class - XI POLITICAL SCIENCE (028)

Months	Chapter	Marks Allowed
	Part - A (Indian Constitution at Work)	
April	1. Constitution why and How 2. Rights in the Indian Constitution	8
May	3. Election and Representation 4. Executive 5. Legislature 6. Judiciary	6 12
June	7. Federalism (Summer Vacation)	6
July	8. Local Governments 9. Constitution as a living document 10. The Philosophy of the constitution	4 4
	Part - B (Political Theory)	
August	1. Political theory : An Introduction 2. Freedom 3. Equality	4 12
Sept.	4. Social Justice Mid Term Examination	6
Oct.	5. Rights 6. Citizenship 7. Nationalism	8
Nov.	Secularism	6
Dec.	Revision of Examination	
Jan.	Revision	
Feb.	Examination	

Class - XI POLITICAL SCIENCE

Question Paper Design (030)	**Theory 80** **Time : 3 Hours**			
Type of Questions	**No. of Questions**		**Marks**	**Total**
Very Short Question	**20**	**x**	**1 =**	**20**
Very Short type question	**3**	**x**	**2 =**	**06**
Short Answer	**4**	**x**	**4 =**	**16**
Long Answer (based in Passage)	**3**	**x**	**5 =**	**15**
Map's Question or Picture	**1**	**x**	**5 =**	**5**
Long Answer	**3**	**x**	**6 =**	**18**
			Total marks	**80**

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

Months	Units / Chapter
	Part - A Foundations of Business
April	• Nature and Purpose of business • Form of business organizations (Topics - Solo proprietorship, Hindu, undivided family, Partnership)
May	• Forms of business organisation (Topics - Cooperative societies, Company, Formation of company, Choice of form of business organisation)
June	• Public, Private and Global Enterprises • Project Work
July	• Business Services • Emerging Modes of Business
August	• Social Responsibility of Business and Business ethics. • Revision
Sept.	Revision and Exam (September Test)
	Part - B (Finance and Trade)
Oct.	• Source of Business Finance • Internal Trade
Nov.	• Small business and Enterprises • International Trade - 1
Dec.	Revision and Exam. (Second Unit Test)
Jan.	• International Trade - 2 Revision
Feb.	Revision and Exam. (Final Exam.)

Class - XI **BUSINESS STUDIES**

Blue Print of Class XI - Commerce B. Studies (054)		
Units		
Part A	Foundation of Business	
	1. Nature and Purpose of Business 2. Forms of Business Organisation	16
	3. Public, Private and Global Enterprises 4. Business Services	14
	5. Emerging Modes of Business 6. Social Responsibility of Business & Business Ethics	10
		40
Part B	Finance and Trade	
	7. Sources of Business Finance 8. Small Business	20
	9. Internal Trade 10. International Business	20
		40
	11. Project Work	20
	Total	**100**
	Case Studies	

Class - XI PHYSICAL EDUCATION (048)

Months	Theory
May & June	Unit - 1 Changing Trends & Carrier in Physical Education Unit - 5 Physical Fitness Health and Welness
July	Unit - 3 Yoga Unit - 6 Test, Measurement and Evaluation
August	Unit - 2 Olympic Value Education Unit - 10 Training and Doping in Sports
Sept.	Unit - 7 Fundamentals of Anatomy, Physiology in Sports Unit - 8 Fundamentals of Kinsiclogy and biomechnics in sports
Oct.	Unit - 9 Psychology and Sports Unit - 4 Physical Education and Sports for CWSN
Nov. - Dec.	Revision Onwards

Q. Paper

Objective type	1 Mark	18 x 1 = 18
Very Short Answer	2 Marks	5 x 10 = 10
Short Ans. Type	3 Marks	5 x 3 = 15
Case Study	4 Marks	4 x 3 = 12
Long Ans.	5 Marks	5 x 3 = 15

Practical

1. Physical Fitness Test : SA1 Khelo India Test
2. Proficiency in Game and Sport (Skill of any one IOA recognized. Game/Sport)
3. Yogic Practices
4. Record File
5. Viva Voce (Health / Game of Sports / Yoga)

Record File shall include

Practical 1. Fitness Test administration

Practical 2. Procedure for Asanas, Benefits of contradication

Practical 3. Any one IOA recognized sport/Game of choice

Labelled diagram of field and equipment. Also mention its Rules, Terminologies & skills.

Class - XI ACCOUNTANCY (Academic Plan) (code 055)

Month	Chapters	Topics
April	Ch - 2 Ch - 5	Basic accounting terms Accounting equations
May	Ch - 1 Ch - 4 Ch - 3	Introduction to accounting Bases of accounting Theory base of accounting
June	Ch-6 Ch-8	Accounting Procedures - Rules of Dr. & Cr. Journal
July	Ch-7 Ch-12 Ch-9	Vouchers - Origin of transactions GST Ledger
August	Ch-10 Ch-11 Ch-14	Cash book Other books Trial Balance
September		Revision and 1st Term Exams.
October	Ch-13 Ch-17 Ch-16	BRS Rectification of errors Provisions and Reserves
November	Ch-15 Ch-18 Ch-19	Depreciation Financial Statements of sole proprietorship Adjustments in preparation of financial statements
December		Revision and Exams, Project Work
January	Ch-20	Accounts from incomplete Records
February & March		Revision and Final Exams.

Class - XI **ACCOUNTANCY (055)**

Course Structure		
	Units	
Part A	Financial Accounting - I Unit 1 - Theoretical frame work (Ch 1 to Ch. 2) Unit 2 - Accounting Process (Ch.3 to Ch.17)	Marks 12 44 **56**
Part B	Financial Accounting - II Unit 3 - Financial statement of sole proprietorship (Ch.18 to Ch. 20)	 24 **80**
Part C	Project Work	20 **100**

Class - XI **COMMERCIAL ART (052)**

Units		Periods	Marks
1	Pre-Historic Rock-Paintings and Art of Indus Valley	12	10
2	Buddhist, Jain and Hindu Art	24	10
3	Temple Sculpture Bronze and Artistic aspects of Indo-Islamic Architecture	36	10
		72	30

Note : The syllabus of Applied Art-Commercial Art (Theory) for Class XI is the same as that of Painting (Theory) for Class XI given earlier.

Unit 1 : Pre-historic Rock Paintings and Art of Indus Valley (2500 B.C. to 1500 B.C) **24 Periods**

1. A. Pre-Historic Rock-Paintings
   Introduction
   1) Period and Location
   2) Study and appreciation of following Pre-historic paintings :
      (i) Wizard's Dance, Bhimbethaka

   B. Introduction
   i) Period and Location
   ii) Extension : In about 1500 miles
      a) Harappa & Mohenjo-daro (Now in Pakistan)
      b) Ropar, Lothal, Rangpur, Alamgirpur, Kali Bangan, Banawali and Dholavira (in India)

2. Study and appreciation of following : Sculptures and Terracottas :
   (i) Dancing girl (Mohenjo-daro)
   Bronze, 10.5 x 5 x 2.5cm.
   Circa 2500 B.C.
   (Collection : National Museum, New Delhi).
   (ii) Male Torso (Harappa)
   Red lime Stone, 9.2 x 5.8 x 3 cms.
   Circa 2500 B.C.
   (Collection : National Museum, New Delhi)
   (iii) Mother Goddess (Mohenjo-daro) terracotta, 22 x 8 x 5c
   Circa 2500 B.C. (Collection : National Museum, New Delhi).

3. Study and appreciation of following Seal :
   (i) Bull (Mohenjo-daro)
   Stone (Steatite), 2.5 x 2.5 x 1.4 cm.
   Circa 2500 B.C. (Collection : National Museum, New Delhi)
   Decoration on earthen wares :
   Painted earthen-ware (Jar) Mohenjo-daro

Unit 2 : Buddhist, Jain and Hindu Art
(3rd Century B.C. to 8th century A.D.)

1) General Introduction to Art during Mauryan, Shunga, Kushana (Gandhara and Mathura Styles) and Gupta period :
2) Study and appreciation of following Sculptures :
   i) Lion Capital from Sarnath (Mauryan period)
   Polished Sandstone, Circa 3rd Century B.C.
   (Collection : Sarnath Museum, U.P.)
   ii) Chauri Bearer from Didar Ganj (Yakshi) (Mayryan period)
   Polished sandstone Circa 3rd century B.C.
   (Collection : Patna Museum, Bihar)

(iii) Bodhisattva head from Kalra Maund Mathura (Kushan period-Gandhara style)
Stone, 27.5 x 20 x 15 c.m. Circa 2nd Century A.D.
(Collection : National Museum, New Delhi)

(iv) Seated Buddha from Sarnath (Gupta period)
Stone
Circa 5th century AD
(Collection : Sarnath Museum U.P.)

(v) Jain Tirathankara (Gupta period)
Stone
Circa 5th Century A.D.
(Collection : State Museum, Lucknow U.P.)

3. Introduction to Ajanta Location,
period, No. of caves, Chaitya and Vihara, paintings and sculptures, subject matter and technique etc.

4. Study and appreciation of Following Painting and Sculpture :

Unit 3 : Temple Sculptures, Bronzes and artistic aspects of Indo-Islamic Architectures **24 periods**

A) Artistic aspects of Indian Temple sculpture
(6th Century A.D. to 13th Century A.D.)
(1) Introduction to Temple Sculpture
(6th Century A.D. to 13th Century A.D.)
(2) Study and appreciation of following Temple-Sculptures :
i) Descent of Ganga (Pallava period, Mahabalipuram, Tamil Nadu), granite rock
Circa 7th Century A.D.

ii) Trimurti (Elephanta, Maharashtra)
Stone
Circa 9th Century A.D.

iii) Lakshmi Narayan (Kandariya Mahadev Temple) (Chandela period, Khajuraho, Madhya Pradesh)
Stone
Circa 10th Century A.D.

iv) Cymbal Player, Sun Temple (Ganga Dynasty, Konark, Orissa)
Stone
Circa 13th Century A.D.

v) Mother and Child (Vimal-Shah Temple, Solanki Dynasty, Dilwara, Mount Abu, Rajasthan) White marble.
Circa 13th Century A.D.

(B) Bronzes :

1) Introduction to Indian Bronzes
2) Method of casting (solid and hollow)
3) Study and appreciation of following south Indian Bronze :
   i) Nataraj (Chola period Thanjavur Distt., Tamil Nadu)
   12th Century A.D.
   (Collection : National Museum, New Delhi.)

(C) Artistic aspects of the Indo-Islamic architecture :

1) Introducton
2) Study and appreciaton of following architectures :
   i) Qutab Minar, Delhi
   ii) Gol Gumbaj of Bijapur

Class - XI **PRACTICAL**

70 marks **Time : 6 Hours (3+3)**

Unitwise Weightage

Units		Periods	Marks
1	Drawing	50	25
2	Lettering and Layout	50	25
3	Portfolio Assessment	48	20
		148	70

Unit 1 : Drawing **25 marks 50 periods**

Drawing from Still-Life and Nature, medium-pencil monochrome/colour.

Unit 2 : (a) Lettering **25 marks 50 periods**

(i) Study of lettering of Roman and Devnagri Scripts

(ii) Identification of some type-faces and their sizes

(b) Layout

Making a simple layout with lettering as the main component.

Unit 3 : Port Folio Assessment **20 marks 48 periods**

(a) Record of the entire years performance from sketch to finished product. (10)

(b) Five selected drawings in any media done during the year including minimum of two illustrations (05)

(c) Two selected posters in chosen subject. (05)

Note : 1. The candidate should be given one hour break after first three hours.

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

Class - XI **PSYCHOLOGY (037)**

Months	Unit	Topics
April	Chapter - 1 What is Psychology?	Introduction, Psychology as a Discipline, Natural Science, Social Science, Understanding mind and behaviour, Popular Notion about the discipline, Evolution of Psychology, Development of Psychology, Branches of Psychology. Psychology and other discipline, Psychology in Everyday life.
May	Chapter - 4 Human Development	• Introduction • Meaning of development • Life span perspective on Development • Factor influencing development • Context of Development • Overview of Developmental Stages - Prenatal Stage - Infancy - Childhood - Challenges & Adolescent

Class - XI **PSYCHOLOGY (031)**

Months	Unit	Topics
	Chapter - 9 Motivation and Emotion	Adulthood and Old age • Introduction • Nature of Motivation • Types of Motive - Biological Motive - Psychosocial Motive • Maslaw's Hierarchy of Needs • Nature of Emotions • Expression of Emotion - Culture and Emotional Expression - Culture and Emotional Labelling • Managing Negative Emotion • Enhancing Positive Emotion
June	Chapter - 2 Methods of Enquiry in Psychology	• Introduction • Goals of Psychological Enquiry Steps in conducting scientific Research Alternative paradigms of Research • Nature of Psychological Data • Some Important Methods in Psychology Observation Method Experimental Method Correlational Research Survey Research Psychological Testing Case Study • Analysis & Data Quantitative Data Qualitative Data • Limitations & Psychological Data • Ethical Issues

Class - XI **PSYCHOLOGY (031)**

Months	Unit	Topics
July	Chapter - 7 Human Memory	Introduction, Nature, Information Processing Approach, Memory System, Level of processing, Types & Long term memory • Declarative and procedural • Episodic & semantic • Nature and causes of memory • Enhancing Memory
August	Chapter - 8 Thinking	• Nature of Thinking • Processes of Thinking • Problem solving, Reasoning, Decision making • Nature and process of creative thinking • Development of creative thinking • Thought and Language • Development & Creative Thinking
September	Revision for Final Exam.	
October	Chapter - 6 Learning	• Introduction • Nature • Paradigms & learning • Classical Conditioning • Operant / Instrumental Conditioning • Observational Learning • Cognitive Learning • Verbal learning • Skill Learning • Factors • Learning Disabilities

Months	Unit	Topics
November	Unit - 5 Sensory, Attentional and perceptual processes	• Introduction • Knowing the World • Nature and varieties of stimulus • Seme Modalities • Attention Processes • Perceptual processes the perceiver • Principles of perceptual organisation • Perception of space, depth and distance • Perceptual constancies • Ilhusion • Socio-cultural Influences on perception
December	Revision & Exams.	
January	Unit - 6	Introduction • Nature • Paradigms of Learning • Classical Conditioning • Operant / Instrumental condilosing • Observational Learning • Cognitive Learning • Verbal Learning • Skill Learning • Factors • Learning disabilities Revision
February	Revision & Exam.	

Class - XI **MUSIC VOCAL (034)**

Months	Theory	Practical
May	Definition of the following : Nada, Shruti, Swar, Saptak, Thaat Raag Bihag (Description and Notation) Taal - Teental (Description, Thak, Dugun, Tigun, Chaugun)	Singing of Alankar Singing of Aroh-Avroh, Devotional Song, Drut Khayal Notation
June	Ektal, Chautaal Life Sketch Tansen, History of Tanpura Brief history of Khyal, Margi, Desi Sangeet	Notation of Raag Bihaag, hand beats of Teentaal, Folk Song
July	Life Sketch - V.N. Bhatkhande Raag Jaunpuri Description Definition of Jaati	Raag Bhimplasi and Practice of Choice Raag
August	Brief history of Dhrupad, Gharana. Description of Raag Bhairvi. Notation of Raag	Raag Bairavi (Notation and Tanas)
Oct.	Brief study of Natya Shastra and Brihadeshi, Define - Swarmalika Tarana, Nibadha and Anibadhgana. Notation of Slow Khyal, Notation of Raag Bhimplasi	Singing of slow Khyal. Hand beats of Ektaal, Chautaal
Nov.	Revision	Revision
Dec.	Revision	Revision
Jan.	Revision	Revision

Class - XI **MUSIC VOCAL**

Blue Print	
1. Definition	Sangeet, Dhawani, nada, Shruti, Swar, Saptak, Thaat, Jati, Raag, Swarmalika, Tarana, Nibadha and anibadhagana. 3 out of 4 6 marks
2. Description	Raag Bihaag, (2 out of 3) 6 marks Raag Bhairvi, Bhimpalasi
3. Life Sketch	Tansen, V.N Bhatkhande (6 marks) V.D Pluskar
4. Writing notation of Any Raag - 6 marks	
5. Writing notation of Taal - Teen Tal, Ektaal, Kehrwa, Dadra, (2 out of 3) - 6 marks Chartaal, Sultaal	
6. Brief history of Khayal, Dhrupad, Gharana - 6 marks	
7. Natya Shastra - 6 marks	

Class - XI **MATHS (041)**

No.	**Units**	**No. of Periods**	Marks
1.	Sets and Functions	60	23
2.	Algebra	50	25
3.	Coordinate Geometry	50	12
4.	Calculus	40	08
5.	Statistics and Probability	40	12
	Total	240	80
	Internal Assessment		20

Class - XI **MATHS**

*No chapter/unit-wise weightage. Care to be taken to cover all the chapters.

Unit I : Sets and Functions

1. Sets : Sets and their representations. Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.

2. Relations & Functions : Ordered pairs, Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R) Definition of relation, pictorial diagrams, do main, co-domain, and range of a relation. Function as a special kind of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.

3. Trigonometric Functions: Positive and negative angles. Measuring angles in radians and and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity sin2x + cos2x=1, for all x, Signs of trigonometric functions. Domain and range of trignometric functions and their graphs. Expressing sin (x±y) and cos (x±y) in terms of sinx, siny, cosx & cosy. Deducing the identities like the following:

$$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$$

$$\sin\alpha \pm \sin\beta = 2\sin\frac{1}{2}(\alpha \pm \beta)\cos\frac{1}{2}(\alpha \mp \beta)$$

$$\cos\alpha + \cos\beta = 2\cos\frac{1}{2}(\alpha + \beta)\cos\frac{1}{2}(\alpha - \beta)$$

$$cos\alpha - cos\beta = -2sin\frac{1}{2}(\alpha + \beta)sin\frac{1}{2}(\alpha - \beta)$$

Identities related to sin 2x, cos 2x, tan 2x, sin 3x, cos3x and tan3x.

Unit-II: Algebra

1. Complex Numbers and Quadratic Equations:

Need for complex numbers, especially $\sqrt{-1}$ to be motivated by inability to solve some of the quardratic equations. Algebraic properties of complex numbers. Argand plane

2. Linear Inequalities:

Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.

3. Permutations and Combinations:

Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of formulae ${}^{n}P_{r}$ and ${}^{n}C_{r}$ and their connections, simple applications.

4. Binomial Theorem:

History perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.

5. Sequence and Series:

Sequence and Series. Arithmetic Mean (A.M) Geometric, Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.

Unit-III: Coordinate Geometry

1. Straight Lines:

Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line.

2. Conic Sections:

Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

3. Introduction to Three-dimensional Geometry

Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.

Unit-IV: Calculus **1. Limits and Derivatives:** Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trignometric functions.
Unit-V: Statistics and Probability **1. Statistics:** Measures of Dispersion; Range, Mean deviation, variance and standard deviation of ungrouped/ grouped data. **2. Probability:** Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.

Class - XI MATHS

Question Paper Design		
Typology of Questions	**Total Marks**	**% weightage**
Remembering - Exhibit memory of previously learned material by recalling facts, terms, basic concepts and answers. **Understanding -** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas	44	55
Applying : Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	20	25
Analysing : Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. **Evaluating :** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating :** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	16	20
Total	**80**	**100**

1. No chapter wise weightage. Care to be taken to cover all the chapters
2. Suitable internal variations may be made for generating various 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 in all the sections.

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

Class - XI **MATHS**

Months	Theory
April	Ch-1 Sets Ch-2 Relations and Functions Ch-3 Trigonometric Functions
May	Ch-3 Trigonometric Functions (to be continued) Ch-5 Complex Number Ch-6 Linear Inequalities
June	Summer Vacation
July	Ch-7 Permutation and Combinations Ch-8 Binomial theorem Ch-9 Sequence and Series
August	Ch-9 Sequence and Series (to be contd.) Ch-10 Straight lines
Sept.	Half yearly Exams
Oct.	Ch-11 Conic Sections Ch-13 Limits and Derivative
Nov.	Ch-12 Introduction to 3D Geometry Ch-15 Statistics Ch-16 Probability
Dec.	Revision and Unit Test
Jan. & Feb.	Revision and Tests
March	Final Exams.

Class - XI

INFORMATICS PRACTICES

Code No. 065

1. Prerequisite. None

2. Learning Outcomes

At the end of this course, students will be able to :

- Identify the components of computer system.
- Create Python programs using different data types, lists and dictionaries.
- Understand database concepts and Relational Database Management Systems.
- Retrieve and manipulate data in RDBMS using Structured Query Language.
- Identify the Emerging trends in the fields of Information Technology.

3. Distribution of Marks and Periods

Unit No.	Unit Name	Marks	Periods Theory	Periods Practical	Total Period
1.	Introduction to computer system	10	10	-	10
2.	Introduction to Python	25	35	28	63
3.	Database concepts and the Structured Query Language	30	23	17	40
4.	Introduction to Emerging Trends	5	7	-	7
	Practical	30	-	-	-
	Total	100	75	45	120

4. Unit Wise Syllabus

Unit 1 : Introduction to Computer System (May - June)

Introduction to computer and computing : evolution of computing devices, components of a computer system and their interconnections, Input/output devices.

Computer Memory : Units of memory, types of memory - primary and secondary, data deletion, its recovery and related security concerns.

Software : purpose and types - system and application software, generic and specific purpose software.

Class - XI INFORMATICS PRACTICES

Unit 2 : Introduction to Python (July - August)

Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, debugging.

Control Statements : if-else, for

loop

Lists : List operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions. - line(), list(), append(), insert(), count(), index(), remove(), pop(), reverse(), sort(), max(), min().

Dictionary : Concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions. - dict (), len (), Keys(), Values(), Items(), update(), del(), clear()

Mid Term Exam - (September)

Unit 3 : Database concepts and the Structured Query Language (October - November)

Database Concepts : Introduction to database concepts and its need, Database Management System.

Relational data model : Concept of domain, tuple, relation, candidate key, primary key, alternate key

Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, Introduction of MySQL, creating a database using MySQL, Data types

Data Definition : CREATE TABLE, CREATE DATABASE, DROP, ALTER

Data Query : SELECT, FROM, WHERE with relational operator, between, logical operations, IS.NULL, IS NOT NULL

Data Manipulation : INSERT, DELETE, UPDATE

Unit 4 : Introduction to the Emerging Trends (December)

Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.

Practical Marks Distribution

S. No.	Unit Name	Marks
1.	Problem solving using Python programming language	11
2.	Creating database using MySQL and performing Queries	7
3.	Practical file (minimum of 14 python programs, and 14 SQL queries)	7
4.	Viva-Voce	5
	Total	**30**

Revision - January

Final Term Exam - February

5. Suggested Practical List

5.1 Programming in Python

1. To find average and grade for given marks.
2. To find sale price of an item with given cost and discount (%).
3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle.
4. To calculate Simple and Compound interest.
5. To calculate profit-loss for given Cost and Sell Price.
6. To calculate EMI for Amount, Period and Interest.
7. To calculate tax - GST / Income Tax
8. To find the largest and smallest numbers in a list.
9. To find the third largest/smallest number in a list.
10. To find the sum of squares of the first 100 natural numbers.
11. To print the first 'n' multiples of given number.
12. To count the number of vowels in user entered string.
13. To print the words starting with a alphabet in a user entered string.
14. To print number of occurrences of a given alphabet in each string.
15. Create a dictionary to store names of states and their capitals.
16. Create a dictionary of students to store names and marks obtained in 5 subjects.

17. To print the highest and lowest values in the dictionary.

5.3 Data Management : SQL Commands

18. To create a database
19. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student is the primary key.
20. To insert the details of at least 10 students in the above table.
21. To display the entire content of table.
22. To display Rno, Name and Marks of those students who are scoring marks more than 50.
23. To find the average of marks from the student table.
24. To find the number of students, who are from section 'A'.
25. To display the information all the students, whose name starts with 'AN' (Examples : ANAND, ANGAD...)
26. To display Rno, Name, DOB of those students who are born between '2005-01-01' and '2005-12-31'.
27. To display Rno, Name, DOB, Marks, Email of those male students in ascending order of their names.
28. To display Rno, Gender, Name, DOB, Marks, Email in descending order of their marks.
29. To display the unique section available in the table.

Suggested material

NCERT Informatics Practices - Text book for class - XI (ISBN - 978-93-8292-148-5)

Excluded topics

- Nested loop (Chapter-3, Section-3.13)
- Loading and saving NumPy array in text files (Chapter-6, Section-6.10 and 6.11)

Class - XI **HINDI**

निर्धारित पुस्तकें :

1) आरोह भाग - 1 (पाठ्यपुस्तक) **विषय हिन्दी (आधार) (कोड संख्या 302)**

2) वितान भाग - 1 (पूरक पाठ्यपुस्तक) **वार्षिक पाठ्यक्रम**

3) अभिव्यक्ति और माध्यम

माह	**साहित्य**
अप्रैल	आरोह - 1) कबीर 2) नमक का दारोगा वितान - भारतीय गायिकाओं में बेजोड़ : लता मंगेशकर
मई	अभिव्यक्ति और माध्यम - दृश्य लेखन, औपचारिक पत्र आरोह - मीरा
जून	ग्रीष्मावकाश
जुलाई	आरोह - मियाँ नसीरूद्दीन, विदाई संभाषण अभिव्यक्ति और माध्यम - प्रतिवेदन, प्रेस, विज्ञप्ति वितान - राजस्थान की रजत बूँदे
अगस्त	आरोह - सुमित्रा नंदन पंत, भवानी प्रसाद मिश्रा, गलता लोहा अभिव्यक्ति और माध्यम - जनसंचार माध्यम और पत्रकारिता, शब्दकोश
सितम्बर	आरोह - स्पीति में बारिश, त्रिलोचन अर्धवार्षिक परीक्षा
अक्तूबर	आरोह - रजनी, जामुन का पेड़, दुष्यंत, अक्क महादेवी
नवंबर	आरोह - अवतार सिंह पाश, निर्मला पुतुल, भारत माता वितान - आलो - आँधरि
दिसम्बर	दोहराई
जनवरी	दोहराई
फरवरी	वार्षिक परीक्षा