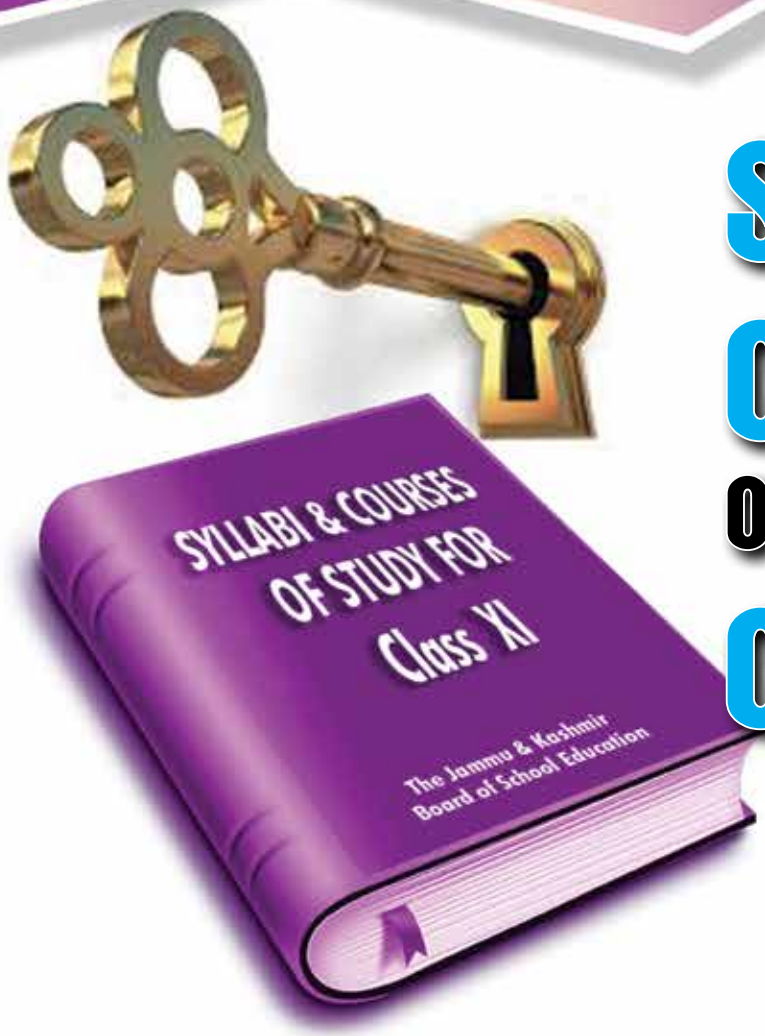
EFFECTIVE FROM

Kashmir Division / Jammu Division / Ladakh (Winter Zone)

Oct-Nov 2019-20

Jammu Division (Summer Zone)

March-April 2020-21



SYLLABI & COURSES OF STUDYFOR Class XI

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CONTENTS

S.NO	DESCRIPTION	PAGE NO
	Scheme of Studies	5
	Scheme of Assessment	8
1	General English	10
2	History	15
3	Economics	18
4	Geography	21
5	Political Science	24
6	Philosophy	27
7	Education	29
8	Psychology	32
9	Sociology	34
10	Home Science (Elective)	36
11	Music	41
12	Statistics	43
13	Mathematics	45
14	Applied Mathematics	48
15	Islamic Studies	50
16	Vedic Studies	53
17	Buddhist Studies	55
18	Computer Science	57
19	Informatics Practices	61
20	English Literature	64
21	Functional English	65
22	Biotechnology	70
23	Environmental Science	73
24	Microbiology	76
25	Physics	84
26	Chemistry	90
27	Biology	97
28	Electronics	102
29	Biochemistry	

30	Geology	105
31	Business Studies	110
32	Accountancy	116
33	Entrepreneurship	121
34	Typewriting & Shorthand	131
35	Business Matematics	134
36	Travel Tourism and Hotel Management	136
37	Physical Education	138
38	Home Science (Full Stream)	141
39	Hindi (for Winter Zone)	149
40	Dogri	152
41	Sanskrit	154
42	Bhoti	156
43	Punjabi	164
44	Kashmiri	167
45	Arabic	169
46	Persian	171
47	Urdu (From right to left)	174-175 Left to Right
48	Public Administration	176
49	Food Technology	82
50	Hindi (Revised Edition for Summer Zone Jammu Division)	178

SCHEME OF STUDIES/ COMBINATION OF SUBJECTS

The students who shall seek admission in Higher Secondary Part-I (Class 11th) from the academic Session (Oct – Nov) 2019 in case of Kashmir Division/Winter Zone of Jammu Division including UT of Ladakh and Academic Session (March- April) 2020 in case of Summer Zone areas of Jammu Division shall follow the given below Scheme. The Scheme of studies and the combination of subjects at +2 stage has been prepared as per new scheme of studies .The revised combination of subjects is now as per the standard at National Level particularly the standard set by the CBSE and has vertical linkage with under graduate courses offered by the University of Kashmir/Jammu.

Subject Combination at Higher Secondary Part –I
Faculty of Science:

Group- I	Group- II	Group- III	Group- IV	Group- V	Group- VI	Group- VII	Group- VIII Vocational Courses level- III
General English (Compulsory)	Physics (Compulsory)	Chemistry (Compulsory)	Mathematics Applied Mathematics	Biology Statistics Geography	Geology Biotechnology Microbiology Biochemistry	Computer Science Information Practices. Environmental Science Functional English Physical-Education Islamic- Studies Vedic- Studies Buddhist- Studies Electronics Food-Technology	IT & ITes. Retail Healthcare Tourism Security. Agriculture Telecommunic-ation Media and Entertainment. Beauty and wellness. Physical Education & Sports

Note:

i- A student shall have to opt any two subjects from IV to VII group, but not more than one from each group (for non-vocational students only).

ii- The students who have passed Vocational subject/s at level 2 in class 10th and intend to opt for Vocational subject at Higher Secondary Part-I (Level-3) will have to opt 5th subject from Group VIII

Faculty of Home Science

Group-1	Group- II	Group- III	Group- IV	Group- V	Group- VI
General English (Compulsory)	Family Health Care & Prevention (Compulsory)	Food Science (Compulsory)	Management of Resources, (Compulsory)	Computer Science Information Practices. Environmental Science Functional English Physical-Education Islamic- Studies Vedic- Studies Buddhist- Studies Travel Tourism & Hotel Management Food-Technology	IT & ITes. Retail Healthcare Tourism Security. Agriculture Telecommunication Media and Entertainment. Beauty and wellness. Physical Education &sports

Note:

i- A student shall have to opt any one subject from Group –V (for non-vocational students only).

ii- The students who have passed their Vocational subject/s at level 2 in Class 10th and intend to opt vocational subject at Higher secondary Part-I (level-3) will have to opt 5th subject from Group VI.

Faculty of Commerce

Group-1	Group- II	Group- III	Group- IV	Group- V	Group- VI	Group VII
General English Compulsory	Business Studies (Compulsory)	Accountancy (Compulsory)	Entrepreneurship Or Economics	**i-**Business Studies **ii-**Type writing & shorthand **iii-**Public Administration	Computer Science Information Practices. Environmental Science Functional English Physical-Education Islamic- Studies Vedic- Studies Buddhist- Studies Travel Tourism & Hotel Management	IT & ITes. Retail Healthcare Tourism Security. Agriculture Telecomm-unication Media and Entertainment. Beauty and wellness. Physical-Education &Sports

Note:

i- A student shall have to opt any two subjects from IV-VI groups but not more than one from each group (for non-Vocational students only).

ii- The students who have passed their vocational subject at level -2 in class 10th and intend to opt for vocational subject at Higher secondary Part-II (Level-3) will have to opt any one subject from Group IV to Group VI and 5th subject from Group No. VII.

Faculty of Humanities

Group -1	**Group-II**	**Group- III**	**Group - IV**	**Group - V**	**Group - VI**	**Group VII**	Group VIII	Group IX
General English (Compulsory)	Urdu Hindi Kashmiri Dogri Punjabi Bhoti	Arabic Sanskrit Persian Economics	Mathematics Applied Mathematics Sociology	Psychology Music Geography Philosophy Education	History Home-Science (Elective) Public Administration	Statistics Political Science	Computer Science Information Practices. Environmental Science Functional English Physical-Education Islamic- Studies Vedic- Studies Buddhist- Studies Travel Tourism & Hotel Management English Literature Food Technology	IT & ITes. Retail Healthcare Tourism Security. Agriculture Telecomm-unication Media and Entertainment. Beauty and wellness. Physical Education &Sports

Note:

i- A student shall have to opt any four subjects from Group II to VIII group but not more than one from each group (for non-vocational students only).

ii- The students who have passed their Vocational subject/s at level -2 and intend to opt for vocational courses at Higher secondary Part-I (level-3) will have to opt any three subjects from Group No II to Group VIII and 5th subject from Group No, IX (Vocational Course).

iii- No repetition/similarity of incomplete combination of subjects is allowed.

iv- While choosing Subject/s students are advised to opt for such subject/s or combinations of subjects which are available and taught in the institution as per the above mentioned combinations.

SCHEME OF ASSESSMENT / EXAMINATION

The Higher Secondary Part 1st (Class 11th) Examination conducted by the Board at the end of academic session on the basis of syllabi prescribed for class 11th is open to eligible candidates and shall be conducted according to the following scheme of examination.

Marks

Subject	Theory Marks	Practical Marks		Total Marks
		Internal Assessment	External Examination	
1-General English	100	-	-	100
2-Hisotry	90	Project work 10 marks		100
3-Economics	90	10 marks project/Viva	-	100
4-Geography	70	10 marks	20 marks	100
5-Political Science	100	---	---	100
6-Philosophy	100	---	---	100
7-Education	100	---	---	100
8-Psychology	70	10	20	100
9-Sociology	100	---	---	100
10-Home Science (Elective)	70	10	20	100
11-Music	50	25	25	100
12-Statistics	70	10	20	100
13-Mathematics	100	---	---	100
14-Islamic Studies	100	---	---	100
15- Vedic Studies	100	---	---	100
16-Hindi	100	---	---	100
17-Dogri	100	---	---	100
18-Sanaskrit	100	---	---	100
19-Bhoti	100	---	---	100
20- Punjabi	100	---	---	100
21-Public Administration	100	---	---	100
22-English Literature	100	---	---	100
23-Urdu	100	---	---	100
24- Kashmiri	100	---	---	100
25-Arabic	100	---	---	100
26- Persian	100	---	---	100
27-Buddhist Studies	100	---	---	100
28-Applied Mathematics	100	---	---	100

29-Physics	70	10	20	100
30- Chemistry	70	10	20	100
31-Biology	70	10	20	100
32-Geology	70	10	20	100
33-Biotechnology	70	10	20	100
34-Microbiology	70	10	20	100
35-Environmental Science	70	10	20	100
36-Functional English	100	---	---	100
37-Bio-Chemistry	70	10	20	100
38-Computer Science	70	10	20	100
39-Information Practices	70	10	20	100
40-Physical Education	70	10	20	100
41-Electronics	70	10	20	100
42-Family Health Care & Prevention	70	10	20	100
43-Food Science	70	10	20	100
44-Management of Resources	70	10	20	100
45-Accountancy	80	05	15	100
46.Entrepreneurship	70	10	20	100
47-Typewriting & Shorthand		50	50	100
48-Business Studies	90	10 Project Work	---	100
49-Travel, Tourism Hotel Management	100	---	---	100
50- Business Mathematics	100	---	---	100
51-Food Technology	70	10	20	100

GENERAL ENGLISH

I. General aims of Teaching English

1. To develop student's ability to use English language accurately, appropriately, effectively and fluently for communication in various situations.
2. To develop student's ability to read and understand texts in English on different subjects and topics with minimal help from teachers.
3. To develop student's ability to use English language appropriately for effective written communication.
4. To hone their ability to listen to and understand English language when used in academic and social situations.
5. To enable students to become self reliant for learning many aspects of language and also to learn other content subjects,
6. To enrich their knowledge of grammar for accurate and precise communication.
7. To enrich their vocabulary and to enable them to use words most appropriate to situations.
8. To develop their skills to read and appreciate literature and develop a liking towards English language.

II. Domains

The major domains of teaching English are:

1. Listening
2. Speaking
3. Reading
4. Writing
5. Communication
6. Grammar
7. Vocabulary
8. Study Skills
9. Literary Skills

III. Specific Objectives of Teaching English as a Second language in Class XI

A. Listening

1. To develop student's ability to listen to and understand instructions.
2. To develop their ability to listen to lectures, talks, interviews on familiar topics and get specific items of information.
3. To develop their ability to listen to and get an overall idea of the content of lecture talks discussions etc.
4. To develop their ability to gather almost full information by listening to live discussions,

talks, lectures and also by listening to radio and television.

B. **Speaking**

1. To enable students to pronounce words and phrases accurately.
2. To use pauses meaningful in long utterances.
3. To use the right intonation to communicate the intended meaning.
4. To read prose passages, dialogues and poems aloud with correct pronunciation stress and intonation.

C. **Communication**

1. To enable students to use English language in day to day situations for common communicative functions.
2. To enable students to use English language appropriately in academic and social situations.
3. To enable students to speak reasonably fluently, with minimal hesitations.

D. **Reading**

1. To enable students to read and understand prose and poems on a variety of academic and general topics from textbooks, reference sources and other common sources such as newspapers and magazines.
2. To enable students to employ the right reading strategies to suit the purpose of reading.
3. To develop students ability to read and gather specific items of information from a variety of sources.
4. To develop their ability to read for an overall idea of the content of texts.
5. To develop their ability to read texts for full understanding.
6. To develop their ability to read fluently with reasonably degree of comprehension.
7. To develop in students an interest towards English Literature.

E. **Writing**

1. To familiarize students with qualities of good and effective writing.
2. To develop their ability to write coherently and cohesively.
3. To develop their ability to write accurately and appropriately using language appropriate to the audience, situation and purpose of writing.
4. To develop their ability to write short paragraphs and essays on variety to topics.
5. To develop their ability to use English for writing letters for a variety of purposes.
6. To develop their ability to use English for e-mail communication.

F. **Study Skills**

1. To sharpen their ability to use dictionary as a reference tool.
2. To develop their ability to read and makes notes for study purposes.
3. To develop their ability to transcend information from verbal to visual format and vice-versa.
4. To develop their ability to make summaries a long prose passages.

G. **Grammar**

1. To enhance their understanding of grammatical concepts.
2. To develop their ability to apply grammar rules in communicative situations.
3. To develop their ability to monitor their own language behavior.
4. To develop their ability to use the knowledge of grammar while listening, speaking reading and writing.

H. **Vocabulary**

1. To enrich their vocabulary.
2. To familiarize them with the concepts of synonyms, antonyms, collocation etc.
3. To develop their ability to use words most appropriate to the communicative situation.
4. To equip them with the strategies to cope up with unfamiliar words while reading texts in English.

IV Course Books Prescribed:

1. Chinar-I – An Anthology of Prose and Poetry for class XI- Published by Cambridge University Press in cooperation with Jammu and Kashmir State Board of School Education.
2. A Course in English Grammar and Composition – for classes XI and XII, Published by Cambridge University Press in cooperation with Jammu and Kashmir State Board of School Education.

GENERAL ENGLISH

Total M. Marks= 100 **Time:3 Hrs**

SECTION:- A (LITERATURE) **Marks: 40**

Q.1 One LAT question (100 Words) from prose based chapters on character sketch/ description of Scene/ title etc be attempted out of two.

01x08 = 08

Q.2 One LAT question (100 Words) from poetry based on theme/ style/ critical appreciation etc to be attempted out of two. 01x07= 07

Q.3 Two SAT question (50-80 Words) from prose to be attempted out of four.

02 x05 = 10

Q.4 Three SAT question from poetry based on poetic devices to be attempted out of five.

03 x03 = 09

Q.5 One reference to the context type question based on prose/ poetry to be attempted out of two. 01 x06 = 06

SECTION:- B (READING COMPREHENSION) Marks: 15

Q.6 One out of two poetic passage from the textbook followed by questions and MCQ's fill ups etc. 01 x05 = 05

Q.7 One/ Two unseen prose passages followed by comprehension questions.

(a) T/F, Yes/ NO, MCQ's and Fill ups. 01 x05 = 05

(b) Vocabulary (word meaning, collocation, spelling, synonym/ antonym, homophones, homonyms etc). 01 x 05 = 05

SECTION:- C (WRITING SKILLS)

I. Paragraph writing (Descriptive/ narrative) (60 – 80 word) with internal choice.

01 x 04 = 04

II. Essay Writing (100- 150 words) with internal choice.

(The examiner will give some clues regarding the topic)

01 x 07 = 07

III. Letter Writing (Formal/ Informal) with internal choice.

01 x 04 = 04

IV. Note Making. 01 x 05 = 05

SECTION: D (GRAMMAR) **Marks: 25**

I. Simple, Compound, Complex sentences.
II. Tenses.
III. Auxiliaries.
IV. Relative Clauses.
V. Conditional Clauses. 5 x 5 = 25

HISTORY

Introduction to World History

Maximum Marks: 100 **Time: 3 hrs**

Theory: 90 Marks **Project work: 10 marks**

Unit

Section A: Early Societies

1. **From the beginning of time.** **06**

Focus: Africa, Europe till 15000 B.C.

a) Views on the origin of Human beings.
b) Early societies.
c) Historians views on present day hunter- gathering societies.

2. **Early Cities.** **06**

Focus: Iraq 3 Millennium B.C

a) Growth of towns.
b) Nature of early urban societies.
c) Historians debate of uses of writing

Section B: Empires

3. **An empire across three continents.** **09**

Focus: Roman Empire, 27 B.C to AD 600.

a) Political evolution.
b) Economic expansion.
c) Religion.
d) Late Antiquity.
e) Debate on the institution of slavery.

4. **Central Islamic Lands.** **08**

Focus: 7th to 12th Centuries

a) Polity.
b) Economy.
c) Culture.
d) Historians' viewpoints on the nature of the crusaders.

5. Nomadic Empires. **08**

Focus: The Mongol, 13th to 14th Century.

a) The nature of nomadism.
b) Formation of empires.
c) Conquests and relations with other states.
d) Historians' view on nomadic societies and state formation.

Section C: Changing Traditions

6. Three orders. **08**

Focus: Western Europe, 13th to 16th Century.

a) Feudal society and economy.
b) Formation of states.
c) Church and society.
d) Historians' view on decline of feudalism.

Project Work: Project No. 1 Heritage sites of J&K State 05

7. Changing Cultural traditions. **09**

Focus: Europe 14th to 17th Century.

a) New idea, and new trends in literature and arts.
b) Relationship with earlier ideas.
c) The contribution of the West Asia.
d) Historians' viewpoints on the validity of the notion 'European Renaissance'.

8. Confrontation of Cultures. **09**

Focus: Europe 15th to 18th Century.

a) European voyages of exploration.
b) Search for gold; enslavement, raids, extermination.
c) Indigenous people and cultures- the Arawaks, the Azetecs, the Incase.
d) The history of displacements.
e) Historians' viewpoints on the slave trade.

Section D: Paths to Modernization

9. The Industrial Revolution. **09**

Focus: England, 18th and 19th Centuries')

a) Innovations and 19th Centuries.
b) Pattern of growth.
c) Emergence of working class
d) Historians' viewpoint, debate on 'was there an industrial Revolution'.

10. Displacing indigenous People **09**

Focus: North America and Australia, 18th to 20th Century.

a) European colonists in North America and Australia.
b) Formation of white settler societies.
c) Displacement and repression of local people.
d) Historians' viewpoints on the impact of European settlement on indigenous population.

11. Paths to modernization. **09**

Focus: East Asia, late 19th and 20th Century.

a) Militarization and economic growth in Japan.
b) China and the communist alternative.
c) Historians' debate on the meaning of modernization.

Project Work Project No 2 – Bhakti and Sufi traditions in J&K State/ Arts and Crafts in J&K State. 05

BOOKS SUGGESTED:

Theme in History NCERT New Delhi.

ECONOMICS

Maximum Marks: 100 **Time: 3 hrs**
Theory:90 Marks (Practical: 10 Marks)

Unit 1: Introduction 7 Marks

What is Economics?
Meaning: Scope and importance of statistics in Economics?

Unit 2: Collection, Organisation and Presentation of Data 13 marks

- Collection of data Sources of data – primary secondary how basic data is collected: Methods of collecting data; Some important source of secondary data; Census of India and National Sample Survey Organization.
- Organization of Data: Meaning and types of variables: Frequency Distribution.
- Presentation of Data: Tabular Presentation and Diagrammatic Presentation of data.

I) Geometric forms (bar diagram and pie diagrams)
II) Frequency diagrams (histogram, polygon and ogive) and
III) Arithmetic line graphs (times series graph)

Unit 3: Statistical Tools and Interpretation 20 marks

(For all the numerical problems and solutions, the appropriate economic interpretation may be attempted. This means, the students need to solve the problems and provide interpretation for the results derived).

- Measures of Centre Tendency- means (Simple and weighted), median and mode.
- Measures of Dispersion – absolute dispersion (range, quartile deviation, mean deviation and standard deviation); relative dispersion (co-efficient of variation); Lorenz Curve: Meaning and its application.
- Correlation – meaning, scatter diagram; Measures of correlation – Karl Pearson's method (two variables ungrouped data), Spearman's rank correlation.
- Introduction to index Numbers – meaning, types – wholesale price index, consumer price index and index of industrial production, uses of index numbers; inflation and index numbers.

Unit 4: Development Projects in Economics 10 marks

The students may be encouraged to develop projects, which have primary data, secondary data or both. Case studies of a few organization/ outlets may also be encouraged. Some of the examples of the projects are as follows (they are not mandatory but suggestive);

i) A report on demographic structure of your neighborhood;
ii) Consumer awareness amongst households
iii) Changing prices of a few vegetables in your market
iv) Study of a cooperative institution milk cooperatives

The idea behind introducing this unit is to enable the students to develop the easy and means by which a project can be developed using the skills learned in the course. This includes all the steps involved in designing a project starting from choosing a title, exploring the information relating to the title collection of primary and secondary data, analyzing the data, presentation of the project and using various statistical and their interpretation and conclusion.

Unit 5: Indian Economic Development: 10 marks

Development Politics and Experience (1947- 90):

- A brief introduction of the state of Indian economy on the eve of independence.
- Common goals of Five Year Plans.
- Main features, problems and polices of agriculture (institutional aspects and new agricultural strategy etc), industry (industrial licensing etc) and foreign trade.

Unit 6: Economic Reforms since 1991: 10 marks

- Need and main features – liberalization, globalization and privatization;
- An appraisal of LPG policies.

Unit 7: Current Challenges Facing Indian Economy 20 marks

- Poverty – absolute and relative; Main programmes for poverty alleviation; A critical assessment.
- Rural development; Key issues – credit and marketing role of cooperatives.
- Human Capital Formation; how people become resource; Role of human capital in economic development; Growth of Education Sector in India.
- Employment; Growth, informalisation and other issues; Problems and policies
- Infrastructure; Meaning and types; Case Studies; Energy and Health; Problems and Policies – A critical assessment;
- Sustainable Economic Development.
- Meaning Effects of Economic Development on Resources and Environment.

Unit 8: Developing Experience of India: 10 marks

- A Comparison with neighbors
- India and Pakistan
- India and China

Issues: growth, population, and other developmental indicators.

GEOGRAPHY

M. Marks: 100 **Time: 3 hrs**
Theory: 70 marks **Practical: 30 marks**

A. **Fundamentals of Physical Geography**

Unit I: Geography as a Discipline 5 marks

- Geography as an integrating discipline, as a science of spatial attributes;
- Branches of geography importance of physical geography.

Unit II: The Earth 5 marks

- Origin and evolution of the earth; interior of the earth Wegener's continental drift theory and plate tectonics; Earthquakes and volcanoes;

Unit III: Land Forms 6 marks

- Rocks and minerals – major types of rocks and their characteristics;
- Land forms and their evolution
- Geomorphic processes – weathering, mass wasting, erosion and deposition; soils – formation

Unit IV: Climate 11 marks

- Atmosphere – compositions and structure, elements of weather and climate;
- Insulation – angle of incidence and distribution; heat budget of the earth- heating and cooling of atmosphere (conduction, convection, terrestrial radiation, advection); temperature – factors controlling temperature; distribution of temperature- horizontal and vertical; inversion of temperature.
- Pressure – pressure belts; winds – planetary seasonal and local, air masses and fronts; tropical and extra tropical cyclones;
- Precipitation – evaporation; condensation – dew, frost, fog, mist and cloud; rainfall – types and world distribution;
- World – climates – classification (Koeppen); greenhouses effect, global warming and climatic changes.

Unit V: Water (Oceans) 4 marks

- Hydrological Cycle
- Oceans – submarine relief; distribution of temperature and salinity; movements of ocean water waves, tides and currents.

Unit VI: Life on the Earth 4 marks

- Biosphere – importance of plants and other organisms; biodiversity and conservation; ecosystems, bio- geochemical cycle and ecological balance.

B. India – Physical Environment

Unit VII: Introduction 5 marks

- Location – space relations and India's place in the worlds.

Unit VIII: Physiography 7 marks

- Structure and Relief;
- Drainage system; concept and water sheds; the Himalayan and the Peninsular;
- Physiographic divisions.

Unit IX: Climate, Vegetation and Soil 14 marks

- Weather and Climate – spatial and temporal distribution of temperature, pressure, winds and rainfall, Indian monsoons, mechanism, onset and variability – spatial and temporal; climatic types;
- Natural vegetation – forest types and distribution; wild life; conservation; biosphere reserves;
- Soils – major types (ICAR's classification) and their distribution, soil degradation and conservation.

Unit X: Natural Hazards and Disasters: Causes, Consequences and Management (One case study to be introduced for each tropic). 9 marks

- Floods and droughts
- Earthquakes and Tsunami
- Cyclones
- Landslides

C. Practical Work

Unit I: Fundamentals of Maps

- Maps – types, scales – types construction of linear scales, measuring distance finding direction and use of symbols;
- Latitude, Longitude and time;
- Map projection – typology, construction and properties of conical with one standard parallel and Mercator's projection.

Unit II: Topographic and Weather Maps 30 Marks

- Study of topographic maps (1:50,000 or 1;25,000 Survey of India Maps): contour cross section and identification and landforms – slopes hills, valleys, waterfalls, cliff; distribution of settlements;
- Aerial Photographs and Satellite Images;
  Aerial photographs:; Types and Geometry – vertical aerial photographs; difference between maps and aerial photographs; photo scale determination.
  Satellite images; Stages in remote sensing data acquisition, platform and sensors and data products (photographic and digital).
- Use of weather instruments; thermometer, wet and dry – bulb thermometer, barometer wind vane, rainguage.
- Use of weather charts; describing pressure, wind and rainfall distribution.

POLITICAL SCIENCE

Maximum Marks: 100 **Time: 3 hrs**

Unit : I
Indian Constitution at work:

1. **Making of the constitution:** Why do we need constitution? What does a constitution do? Who made our constitution? How did the country's partition affect the working of the constitution assembly? What were the sources of constitutions? **4 marks**

2. **Fundamental Rights:** Why do we need for a bill of rights in the constitution? What are the fundamental rights provided by the constitution? Why was the right of the property removed from fundamental rights? How have the interpretation by the courts influenced Fundamental Rights? How has provision of Fundamental Rights provided the basis for civil liberties movement in India? What are the fundamental Duties? **6 Marks**

3. **System of representational democracy:** What are the different methods of election? How do these methods affect parties and politics? Why was the post system chosen in India? What have been the effects of this system? Why is there a system of reserved seats? What are the provisions to ensure free and fair elections? What does the Election Commission do? **6 Marks**

Unit II

4. **Executive in a parliamentary system:** Why are parliamentary system chosen over other forms of government? Why does the parliamentary system need a constitutional head? How are the Prime Minister and the Chief Ministers elected? What are the formal and real powers of the President of India? What are the powers of Prime Minister or the Chief Ministers and the Council of Ministers? What are the powers of the Governor?

6 marks

5. **Legislature at the central and state level:** Why does the Parliament of India have two Houses? How are the parliament and the state Assembles constituted? What are the 3 powers of the Rajya Sabha and Lok Sabha? How are the laws passed? How the executive is made accountable? What are the constitutional means to prevent defection?
4 Marks

6. **Judiciary:** What is the rule of law? Why do we need an independent judiciary? What are the provisions that ensure the independence of judiciary in India? How are judges appointed? What are the powers of the Supreme Court and the High Courts? How do they use their powers for public interest? **5 Marks**

7. **Federalism:** What is Federalism? How does federalism ensure accommodation of diversities? In which ways is the Indian constitution federal? In which ways does the constitution strengthen the centre? Why are there special provision for some states and areas? **4 Marks**

8. **Local Government:** Why do we need decentralization of powers? What has been the status of local government in the constitution? What are the basic features of rural and urban local governments? Why has been the effect of giving constitutional status to local governments? **5 Marks**

9. **Political philosophy underlying the constitution:** What are the core provisions of the constitution? What are the visions underlying these core provisions? How are these shaped by modern Indian political thought? **5 Marks**

10. **Constitution as a living document:** How has the constitution changed since it inception? What further changes are being debated? What has the working of democracy done to the constitution? **5 Marks**

11. **Introduction to Political Theory:** What is Politics? Do we find politics in seemingly non-political domain? Can political argument be resolved through reasoning? Why do we need political theory? **5 Marks**

12. **Freedom:** Why is freedom? What are reasonable constrains on individual liberty? How are limits defined? **5 Marks**

13. **Equality:** Do all differences involve inequality? Does equality simply saneness? What are the major forms of inequality? How can equality be realized? **5 Marks**

14. **Social Justice:** Is justice all about fairness? What is the relationship between justice and equality? What are the different forms of injustice? In which ways can justice be secured? **5 marks**

15. **Rights:** How is a right different from any claim? What are the major kinds of right claims? How do we resolve a conflict between individual and community rights? How does the state enable and obstruct rights? **6 Marks**

16. **Citizenship:** Who is a citizen? What are relevant grounds for inclusion and exclusion? How are new claims to citizenship negotiated? Can we have a global citizenship? **5 Marks**

17. **Nationalism:** How are the boundaries of a nation defined? Must every nation have a state? What demands can a nation make of its citizens? What is the basis of the right to self-determination? **5 Marks**

18. **Secularism:** What is secularism? Which domains of life does it relate to? What is a secular state? Why do we need secular state in modern life? Is secularism suitable for India? **6 Marks**

19. **Peace:** What is peace? Does peace always require non-violence? Under what conditions is war justified? Can armament promote global peace? **4 Marks**

20. **Development:** What is development? Is there a universally accepted model of development? How to balance the claims of present generation with claims of future generation? **4 Marks**

PHILOSOPHY

Maximum Marks: 100 **Time: 3 hrs**

Unit – I Nature and Scope of Philosophy 10 Marks

(i) Meaning and definition of philosophy
(ii) Nature of Philosophy
(iii) Branches of Philosophy

Unit – II 10 Marks

(i) Origin of Philosophy
(ii) Relation of Philosophy with Science
(iii) Relation of Philosophy with Religion

Unit – III Theories of Knowledge 10 Marks

(i) Rationalism
(ii) Empiricism
(iii) Intuitionism

Unit – IV Different concepts of God 10 Marks

(i) Deism
(ii) Pantheism
(iii) Theism

Unit – V Nature and scope of logic 10 Marks

(i) What id logic
(ii) Uses and applications of logic

Suggested text- book

(i) An introduction to Philosophy by J.N. Sinha.
(ii) History of Philosophy by R. N. Sharma.
(iii) History of Philosophy by Betrand Russell.
(iv) History of Philosophy by Frank Thilly.
(v) Introduction to Philosophy by Y. Maisah.
(vi) Introduction to logic by I.M. Copi.
(vii) Introduction to logic by Vatsayan.

Introduction to Ethics

Unit – VI 10 Marks

(i) Definition and Meaning of Ethics
(ii) Nature of Ethic
(iii) Scope of Ethics

Unit – VIII Hedonism 10 Marks

(i) Meaning of Hedonism
(ii) Psychological and Ethical Hedonism
(iii) Utilitarianism

Unit – VIII Theories of Punishment 10 Marks

(i) Crime
(ii) Punishment, theories of Punishment. (Preventive, reformative, retributive)

Unit – IX 10 Marks

(i) Mahatama Gandhi – Ahimsa (Non- Violence)
(ii) Gautam Buddha – Four noble truth
(iii) Socrates – Virtue

Unit – X Terms and Propositions 10 Marks

(i) Definition of Term, Denotation and connotation of terms.
(ii) Proposition, Classification of propositions.

Books Suggested

(i) A manual of Ethics by J.N. Sinha
(ii) A manual of Ethics by J.S.Mackenzie.
(iii) An introduction to Ethics by William Lilly.
(iv) Introduction to logic by I.M. Copi.

EDUCATION

M. Marks:100 **Time: 3 hrs**

Objective:

1. To have complete conceptual clarity of Education and its role.
2. To be familiar with various aims of education and their importance.
3. To have a working knowledge of various agencies leading to education of children.
4. To have current understanding of pre-primary system of education both in Theory and Practice.
5. To have clear understanding of Educational Psychology.

Unit : 1 Meaning and Concept of Education

1.1. Etymological meaning of education
1.2. Narrow and Broader meaning of education
1.3. Definitions – Pestalozzi, Redden, M.K. Gandhi, Dr. Zakir Hussain, Dr. Sir Muhammad Iqbal
1.4. Need and importance of education **10 marks**

Unit : 2 Understanding Aims of Education

2.1. Meaning of aims of education
2.2. Meaning and importance of following aims:-

** individual aims
** moral and spiritual aim
** Social aim
** cultural aim
** vocational aim **10 marks**

Unit – 3

3.1. Meaning of agencies of education
3.2. Types

** Formal ……. School and religious institutions
** Informal…. Family and Society
** Non- formal… Open school, Distance education and Mass Media. **10 marks**

Unit – 4 Organization & Structure of Education in India

4.1 Pre- primary education
4.2 Primary education
4.3 Secondary education
4.4 Higher education
(to be discussed with special reference to organization structure and aims).

10 marks

Unit – 5 Universalization of Elementary Education

5.1 Concept of universalization of elementary education
5.2 Problems of universalization
5.3 Initiatives of elementary education
** Non formal education
** Early childhood care and education
** Sarva Shiksha Abhiyan
** Rights to Education Act (1997)
5.4 Wastage and Stagnation…. Causes and control **10 marks**

Unit – 6 Educational Psychology

6.1. Meaning and definition of Educational Psychology
6.2. Stern, Skinner, Judd, Crow & Crow
6.3. Need and scope of educational psychology
6.4. Methods of educational psychology
** Observation method
** Case – study method **10 marks**

Unit – 7 Emotions

7.1. Understanding the concept of emotions
7.2. Definitions McDougall, Woodworth, Gates
7.3. Characteristics of emotions
7.4. Types of emotions – Fear, Anger, Jealousy
7.5. Classification proposed by McDougall
7.6. Training of emotions: Suvlimation and Catharsis
7.7. Importance of training of emotions **10 marks**

Unit – 8 Value Education

8.1. Conceptual clarity of value education
8.2. Types of values (Social, Moral and Religious)
8.3. Need and importance of value education
8.4. Role of education in imbibing values **10 marks**

Unit – 9 Elementary Statistics

9.1. Meaning of statistics
9.2. Tabulation of Data into Frequency distribution
9.3. Graphic Representation of Data
** Frequency Polygon
** Histogram
** Pie- chart
** Ogive
9.4. Measures of central tendency – Mean, Median and Mode (calculations only)

10 marks

Unit – 10 Environmental Education

10.1. Concept of environmental education
10.2. Aims and objectives of environmental education
10.3. Needs and importance of environmental education
10.4. Environmental Pollution … Air, Water and Noise
(Meaning Causes and Control) **10 marks**

Books Suggested:

1. A textbook of Education by Dr. G. Rasool and Dr. H.P Mangotra.
2. Education for Beginners by N.A. Nadeem, Fullbright Publishing Co, Karan Nagar, Srinagar.
3. Principles & Techniques of Education by Safaya and B.D. Shida.
4. Educational Psychology by S.K. Mangal.

PSYCHOLOGY

M. Marks: 100 **Time: 3 hrs**
Theory: 70 Marks **Practical:30 Marks**

UNIT – I INTRODUCITON TO PSYCHOLOGY

- Nature and scope of Psychology.
- Brief historical background of Psychology.
- Branches of Psychology: Educational, Social, Abnormal, Experimental, Clinical, Industrial Land Cognitive Psychology.
- Schools of thought in Psychology: Structuralism, Functionalism, Behaviourism and Psychoanalysis. **9 marks**

UNIT – II METHODS IN PSYCHOLOGY

- Observation, Experimental, Survey & Case Study method.
- Psychological Testing and its characteristics: Reliability & validity. **5 marks**

UNIT – III THE BASIS OF HUMAN BEHAVIOUR

- Biology of behavior: Structure and functions of Nervous system.
- Locations and functions of endocrine systems & its effect on behavior.
- Heredity and Behaviour: Genes and Chromosomes.
- Socio- cultural basis of behavior: Family, Neighborhood and School. **7 marks**

UNIT – IV HUMAN DEVELOPMENT

- Meaning of growth and development.
- Factors influencing development.
- Overview of development stages: Infancy, Childhood, Adolescence, Adulthood and Old Age. **7 marks**

UNIT – V SENSORY, ATTENTIONAL AND PERCEPTUAL PROCESSES

- Meaning of Sensation, Attention and Perception.
- Laws of perceptual organization.
- Attentional processes Selective and Sustained Attention, Illusions.
- Sense Modalities: Visual and Auditory Modalities. **7 marks**

UNIT – VI EARNING

- Meaning and characteristics of Learning.
- Classical and Operant Learning, Observational Learning, Verbal Learning, Skill learning.
- Factors facilitating Learning, Transfer of Learning. **7 marks**

UNIT – VII MEMORY AND FORGETTING

- Meaning of Memory & its components.
- Levels of processing: Sensory memory, Short- term memory, Long- term memory.
- Forgetting, Nature of Forgetting, Theories of Forgetting (Trace decay, Interference, Retrieval failure). **8 marks**

UNIT – VIII THINKING AND LANGUAGE

- Nature of thinking.
- Process of thinking, Reasoning, Problem solving and Decision making.
- Nature and process of creative thinking.
- Thought and Language, Development of Language and Language use. **6 marks**

UNIT – IX MOTIVATION

- Meaning, Cycle of motivation.
- Biological Motives.
- Psycho- social motives: Achievement, Affiliation and Power.
  Maslow's Hierarchy of needs. **7 marks**

UNIT –X EMOTIONS

- Meaning of emotion and its characteristics.
- Theories of emotion: James- Lange Theory, Cannon- Bard Theory.
- Emotional reactions: Happiness, Optimism, Anger and Fear. **6 marks**

PRACTICALS **30 marks**

- Memory and forgetting by using memory drum.
- Learning: (Star shape) Bilateral transfer of learning.
- Attention

SOCIOLOGY

Maximum Marks: 100 **Time: 3 hrs**
Theory 70 Marks (Practical 30)

Unit I: Introduction to Sociology 10 Marks

- Concept of Sociology: Nature and Subject Matter.
- Emergence of Sociology: Enlightenment, Industrial Revolution, French Revolution.
- Society: Concept, Structure, function & types.
  Society: Functional and Conflict Perspective.

Unit II: Basic Concepts 10 Marks

- Social Groups: Concept and Nature, Primary, Secondary and Reference groups.
- Social Stratification: Concept and Nature, Caste & Class.
- Social Control: Concept and Nature, Agencies of Social Control.
- Status and Role: Concept and Nature, Types of Status and Role.

Unit III: Social Institutions – I 10 Marks

- Concept and Definition of Social Institution.
- Family: Structure and Functions.
- Marriage: Concept and Types of Marriage.
- Kinship: Concept Terminologies, Types & Rules.

Unit IV: Social Institutions – II 10 Marks

- Religion: Concept, Role and Functions.
- Education: Role and Functions.
- Polity: State, Sovereignty, Legislature, Executive, Judiciary.
- Economy: Concept and Nature, Jajmani system, Socialistic & Capitalistic System.

Unit V: Culture and Society 10 marks

- Culture: Concept and Dimensions.
- Values, Norms, Folkways, Customs.
- Socialization: Agencies of Socialization.
- Pluralistic and Culture Ethos- With special reference to J&K.

Unit VI: Classical Sociological Thought 10 marks

- August Comte: Law of three- Stages.
- Karl Marx: Class and Class Struggle.
- Emile Durkheim: Social Fact- Suicide.
- Max Weber: Religion.

Unit VII: Indian Sociological Thought 10 marks

- G.S. Ghurye: Caste and Race in India.
- D.P. Mukherjee: Tradition and Modernity.
- M.N. Srinivas: Sanskritization.
- Imtiyaz Ahmad: Arshafization and Ajlarfization.

Unit VII: Social Structure and Processes in Indian Society 10 marks

- Social Structure: Concept
- Social Processes: Concept, Nature & Types.
- Cooperation, Division of labour.
- Conflict and Competition.

Unit IX: Social Change 10 Marks

- Social Change: Conflict model and Evolutionary model.
- Social Order: Deviance and Conformity.
- Social Change in Rural society (Structural & Functional).
- Social Change in Urban Society (Structural & Functional).

Unit X: Environment and Society 10 Marks

- Ecology and Social Environment (Relationship).
- Preservation of water bodies and their significance With special reference to J&K Dal Lake, Wular, Jhelum,Tawi and Mansar.
- Deforestation and its impact on society.
- Social response to Natural Disaster Earth quake, Floods (J&K).

Books Prescribed:

1. Introduction Sociology: A textbook Class XI by NCERT, New Delhi.
2. Understanding Society: A textbook Class XI by NCERT, New Delhi.
3. Indian Society by NCERT, New Delhi.

HOME SCIENCE
(ELECTIVE)

Home Science as a discipline aims to empower learners by developing understanding of four different areas, namely:

- Food and Nutrition.
- Human Development.
- Community Resource Management and Extension.
- Fabric and Apparel Science.

The subject helps students to understand changing needs of Indian society, academic principles as well as develop professional skills.
This would make them competent to meet challenges of becoming a responsible citizen.

Objectives:

The Syllabus at Senior Secondary level develops in the learners as understanding that the knowledge and skills acquired through Home Science facilities development of self, family and community it endeavors to.

1. Acquaint learners with the basics of human development with specific reference to self and child.
2. Help develop skills of judicious management of various resources.
3. Enable learners to become alert and aware consumers.
4. Impart knowledge of nutrition and lifestyles to enable prevention and management of disease.
5. Inculcate healthy food habits.
6. Help develop understanding of textiles for selection and case of clothes.
7. Develop skills of communication to assist in advocacy and dissemination of knowledge to community.

Maximum Marks:100 **Time: 3 hrs**

Theory: 70 Marks (Practical: 30 Marks)

Unit I: Concept of Home Science and its Scope 3 marks

- Definition and meaning of Home Science.
- Historical review of development of Home Science as a discipline.
- Its scope and interdisciplinary approach.

Unit II: Growth & Development 12 marks

- Understanding the concept of Growth and development: The basic principles of development and the difference b/w Growth and development.
- Life span of different stages of growth.
- Adolescence definition.
- Characteristics.
- Physical development – Growth spurt, Sexual development.
- Social and emotional development: Family and socialization, Parental Control techniques, Role of siblings and grandparents, Development of peer relationship & Friendship pattern, Interest in opposite sex, development of gender role, stereotype, Role of school and teacher, Identity crises, storm and stress, Anger Management.
- Cognitive development: Meaning & Characteristics.

Unit III: Some Problems Related to Adolescence 12 Marks

- Awkwardness due to growth spurt, freedom and control, depression, alcohol, drugs and smoking, delinquency, problems related to sex; ignorance and increased Curiosity, Presentation of HIV/ AIDS and other sexually transmitted diseases; Adolescence a period stress.

Important Development Task

- Role of heredity and environment (family, peers, school and neighborhood), preparing, Role of parents and teachers solving adolescence problems.

Population Education

- Population explosion definition – Causes, effects of over population and it's Control.
- Population Education and its aims.
- Importance of girl child; Govt. incentives to improve status of girl child (with special ref: to state).

Unit IV: Introduction to Fabrics 10 Marks

- **Classification of fibres:**
  Nature (Cotton, Silk and Wool).
  Man- made (Regenerated & Synthetic), (Rayon, nylon and polyester).
  Blends – Characteristics (terry cot, terry silk, terry wool).
  Characteristics of fibres: Physical & Chemical prosperities.

- **Fabric Construction:**
  Yarn making: Basic procedure of making yarn.
  Weaving: Construction of weaves, types of weaves – plain (basket and rib), twill, sateen & satin weave.
  A brief mention of special weaves (Pile and acquard weaves).
  Knitting and non-woven fabrics.
  Felting and bonding.
  Effect of weaves on appearance, durability and maintenance of garments.

- **Fabric Finishes:**
  Meaning and importance.
  Classification of finishes.
  Basic finishes: (Cleaning, Scouring), singeing, bleaching, stiffening, calendaring and tentering).
  Special finishes (Mercerization shrinkage control) (Sanforizing, water proofing), dyeing & Printing.
  Handlooms of J&K.

Unit V: Nutrition for Family 9 Marks

- Definition and relationship between food, nutrition, health, nutritional status, signs of good health; physical status, psychological status, mental ability, mortality and longevity.
- Classification of foods on the basis of nutrients and functions; Physiological, and socio-cultural, nutritional status and calorie intake on the basis of poverty line.
- Selection of foods for optimum nutrition and good health; basic knowledge of nutrients sources, function, deficiency and prevention 1 proteins, Carbohydrates, fat dietary, fibre, vitamin – A, D, B, B2 Niacin, Folic acid B12 and Vit C, minerals – Calcium Iron and Iodine. Basic foods group (ICMR) and their contribution, concept of balanced diet food and nutritional requirement for family (ICMR Tables); factors influencing selection of food culture, family food practices media, peer group and availability of foods (with special reference to J&K).
- Nutritional problems of adolescents – IDD, Anaemia.
- Eating disorders of adolescents.

Unit VI: Maximum Nutrition Value From Food by Proper Selection, Preparation, Cooking and Storage. 9 Marks

- Selection and storage of foods – perishable semi- perishable, non- perishable, convenience foods, reasons for spoilage; brief description of household methods of preservation – refrigeration, dehydration use of chemicals and house hold preservation, Cooking: Principles of cooking :Methods of cooking boiling, steaming, pressure cooking, deep and shallow frying parboiling, sautéing, roasting and grilling, effects of cooking on the nutritive value of food. Method of enhancing nutritive value – germination, fermentation, fortification and proper food combination.

Unit VII: Resource Management 9 Marks

- Resource – Meaning, types and characteristics.
- Community facility/shared resources: school, parks, hospitals, roads, transports, water, electricity, library fuel and fodder.
- Need to manage the resources and methods of Conservation of shared resources.
- Management.
- Meaning need and steps in management.
- Decision making and its role in management.

Unit VIII: Time and Energy Management 8 Marks

- Need and procedure for managing time for occupation and leisure.
- Work simplification meaning and methods, types and ways of reducing fatigue.
- Work ethics – meaning and its importance.

PRACTICAL

Marks: 30 **Time: 3 hrs**

Unit Marks

1.	Concept of Home Science	
2.	Growth & Development	
3.	Nutrition for self and family	8 marks
4.	Resources management	8 marks
5.	Clothing, selection & care	7 marks
6.	Record	5 marks
7.	Viva	3 marks

Unit I: Concept of Home Science – Making Charts and Posters.

Unit II:

- Observation of Adolescence strength and weaknesses and suggestions for utilization of strength and weaknesses to overcome them.

Unit III: Nutrition for Self & Family

Activity: Look for signs of good health within your family.
Activity: Make a list food available in the local market according to food groups.
Practical: Diet plan for Adolescence.
Practical: Preparing nutritious snacks, Canteen meal. Using different methods of cooking.

Practical: Household methods of food preservation (Jam, Squash, Pickles/ Chutney)

Unit IV: Resource Management

Activity: Observe & list resources available at home & in neighbor and suggest improvements
Activity: Observe and make a list of resources materials, surrounding at hone & community – make an article of waste product.
Practical: Make flower & foliage arrangements, floor decorations, Clean & polish copper or brass, glass & iron.

Unit V: Introduction to Clothing

Activity: Collect samples of fabrics & study characteristics for identification.
Activity: Collect samples of weaves & identify them.
Practical: Carry out burning test, slippage test, tearing test & test for colour fastness.
Practical: Dyeing –tie & dye, Block printing.

MUSIC

Maximum Marks:100 **Time 2 ½ hrs**
Theory:50 (Practical:50)

unit – I Marks: 25

1. Writing of atleast ten Alankars in Shudh Swaras only.
2. Writing of Swar Malika of Lakshan Geet in Raag Bilawal and Rag Yaman.
3. Write the Nation of the Taalas in single and double layakaries prescribed in the course of study (i) Teen tal (ii) Kehrva (iii) Dadra

Unit – II

1. Define the following Musical Terms.
2. Naad, Shruti, Swar, Saptak, Sangeet, Vadi Swar, Samvadi Swar, Anuvadi Swar, Variya Swar, alankar, Aroh, Avorh, Pakad.
3. Detail Study of the following with its comparison:
4. Thaat- Raag (ii) Classical – Semi – Classical Music.
5. Swar: Chal, Achal, Shudh, Komal, Teervra Swar (with examples)

Unit – III Marks: 25

1. Write Notation in Bhatkande Notation System of the following Raags. (Chota Khaya/ Razakhani Gat)
2. Full Definition of the Raagas prescribed in the course of study.

Unit – IV

1. Life History and contributions of the following Musicians:
   (i) Pt. Vishnu Narayan Bhatkhande (ii) Swami Haridas
2. Essay Type
   (i) Lok Sangeet and Shastriya Sangeet.
   (ii) Importance of Taal and Laya in Music.
   (iii) Importance of Music in life.
3. Draw and explain the parts of Tanpura/ Sitar
4. Style of Singing and Playing

(i) Khayal Gayaki (ii) Dhrupad Gayaki (iii) Maseetkhani Gat & Razakhani Gat

PRACTICALS

Time: 3 hrs **50 Marks**

	Marks
1st Test in Practical	20
2nd Test in Practical	20
Practical file and impression	10

1. Alankars in Bilawal Theat.
2. Raag Bilawal and Raag Yaman (Swar Malika/ Lakshan Geet).
3. Playing of teen Taal, in single and double Layakaries.
4. Any flok song of your State/ Different Bols of Mizrab.
5. Singing/ playing of Alankars in Kalyan thaat.
6. Raag Bilawal and Raag Yaman (Chota Khayal or Razakhani Gat with four Tanas and Todas)
7. Playing of Teentaal, Dadra and Kehrva Taal in Single and double layakaries.
8. Any Classical based Filmi song or Folk song.

Books Suggested:

1. Sangeet Visharad.
2. Sangeet Shastra Darpan I and II.
3. Kramik Pustak Malika Part – I and Part – II.

STATISTICS

Maximum Marks :100
(Theory): 7 (Practical: 30)

Unit I: Introduction to Statistics 6 marks

- Origin, Definition and Meaning of Statistics, Importance and Scope of Statistics.
- Limitations of Statistics Data and its type (Primary, Secondary, Qualitative and Quantitative data), Sources of secondary data.

Unit II: Data Collection 6 marks

Concept of Population and Sample, Method of data collection (Questionnaire and Interview Method). Merits and demerits of these Methods. Presentation Classification and Tabulation of data. Discrete and continuous data. Frequency and frequency distribution.

Unit III: Graphical representation of data 7 marks

Representation of data by Graph, its advantages. Construction of diagrams/ Charts (Bar chart, Multiple Bar diagram, Pie chart). Frequency graphs (Histogram Frequency Polygon, Frequency Curve, Ogive Curves).

Unit IV: Measures of Location 8 marks

Centre Tendency and its Measures (Mean, Median, Mode, Geometric Mean and Harmonic Mean). Essentials of good average. Merits and Demerits of Measures of Central Tendency. Combined and Weighted Mean.

Unit V: Partitation Values 8 marks

Graphical Location of Median, Concept of Quartiles, Deciles and Percentiles. Percentile Rank, Empirical relation between Mean, Median and Mode, Symmetrical and Asymmetrical data.

Unit VI: Dispersion 8 marks

Dispersion and its absolute measures (Rang, Quartile Deviation, Mean Deviation and Standard Deviation). Merits and Demerits of these measures. Relative measures of Dispersion (Co-efficient of Range, Co-efficient of Qartile deviation, Co-efficient of Standard deviation). Co-efficient of variation (C.V).

Unit VII: Moments 6 marks

Define Moments, Types of Moments (Raw Moments and Centre Moments for discrete and continuous data) Relationship between Raw and Central Moments Numerical illustration based on Moments.

Unit VIII: Skewness and Kurtosis 7 marks

Define Skewness and its types, Measures of Skewness (Karl Pearson, Bowleys and Moment based measure), Kurtosis and its types. Measures of Kurtosis.

Unit IX: Correlation 8 marks

Bivariate data, Scattered diagram, Concept of Correlation and its types. Methods of measuring Correlation (Product moment method, Graphical method). Properties of Correlation co-efficient. Rank correlation for simple and repeated Ranks.

Unit X: Introduction to Computers 6 marks

Basic idea about computers, Functional components (Input/ Output Units, Hardware and Software). Generation of Computers, Concept of flow charts, Classification of computers.

Practical Work (weightage 30 marks)

1. Preparing different types of statistical tables (frequency table, cumulative frequency table , exclusive and inclusive continuous table)
2. Construction of different diagrams /charts (Bar Charts, Pie Charts). Graphs (Histogram, Frequency polygon, Frequency Curve Ogive).
3. Calculation of different measures of central tendency.
4. Calculation of different partition values and check them graphically.
5. Calculation of different measures of dispersion.
6. Calculation of skewness and kurtosis, using moments.
7. Calculation of Co-efficient of correlation

MATHEMATICS

Maximum Marks: 100 **Time: 3hrs**

Topics		**Marks**
Unit – I	Sets	06
Unit – II	Relations and Functions	06
Unit – III	Trigonometry	12
Unit – IV	Mathematical Induction	04
Unit – V	Permutation and Combinations	06
Unit – VI	Complex Numbers and Linear in equations	06
Unit – VII	Limits and Derivatives	10
Unit – VIII	Co-ordinate Geometry (Straight Line)	06
Unit – XI	Conic Section (Circles) Parabola, Ellipse, Hyperbola	10
Unit –X	Probability	06
Unit – XI	Statistics	06
Unit – XII	Binomial Theorem	06
Unit – XIII	Sequences and Series	08
Unit – XIV	Three Dimensional Geometry	04
Unit – XV	Mathematical Reasoning	04

Unit – I
Sets

Sets and their representation. Empty set. Finite and infinite sets. Equal sets subsets. Subsets of the set of real numbers especially intervals (with notations). Power set. Universal set. Venn diagrams, union and Intersection of sets. Difference of sets. Compliment of a set. Ordered pairs, Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the reals with itself (up to RxRxR).

Unit – II Relations and Functions

Definition of relation, pictorial diagrams, domain, co-domain and range of relation. Function as a special kind of relation from one set to another. Pictorial representation of a function, domain and co-domain and range of a function – Real valued function of the real variable – domain and range of these functions. Constant, identity, polynomial, rational, modulus, signum and greatest integer functions with their graphics. Sum, difference product and quotients of functions.

Unit – III Trigonometry

Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x+\cos^2 x = 1$, for all x. Signs of trigonometric functions and sketch of their graphs. Expressing sin (x+y)and cos (x+y) in terms sin x, sin y, cos x and cos y. Deducing the following identities.

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

$$\sin x + \sin y = 2 \sin \frac{x+y}{2} \cos \frac{x-y}{2}, \quad \cos x + \cos y = 2 \cos \frac{x+y}{2} \cos \frac{x-y}{2},$$

$$\sin x - \sin y = 2 \cos \frac{x+y}{2} \sin \frac{x-y}{2}, \quad \cos x - \cos y = -2 \sin \frac{x+y}{2} \sin \frac{x-y}{2}.$$

Identities related to sin 2x, cos 2x, tan 2x, sin 3x, cos 3x and tan 3x. General solution of trigonometric equations of the type $\sin\theta = \sin\alpha$, $\cos\theta = \cos\alpha$ and $\tan\theta = \tan\alpha$ Proofs and simple applications of sine and cosine formulae.

Unit – IV Mathematical Induction

The Principal of Mathematical induction and Simple applications.

Unit – V Permutation and Combinations

Fundamental principle of counting. Faction n, Permutations and combinations, derivation of formulae and their connections simple applications.

Unit – VI Complex Numbers and Linear Inequations

Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve every quadratic equation. Brief description of algebraic properties of complex numbers. Argand plane and polar representation of complex numbers. Statement of Fundamental Theorem of Algebra, solution of quadratic equation in the complex number system.

Linear inequalities. Algebraic solution of linear inequalities in one variable and their representation on the number line. Graphical solution of linear inequalities in two variable. Solution of system of linear inequalities in two variables- graphically.

Unit – VII Limits and Derivates

Derivative introduced as rate of change both as that of distance function and geometrically, intuitive idea of limit. Definition of derivative, relate it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.

Unit – VIII Straight Lines

Brief recall of 2d from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a parallel to axes, point – slope form, slope – intercept form, two – point form, intercepts form and normal form. General equation of a line. Distance of a point from a line.

Unit – IX Conic Sections (Circles)

Sections of a cone: Circles, ellipse, parabola, hyperbola, a point, a straight and a 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.

Unit – X Probability

Random experiments: Outcomes, spaces (set representation). Events: Occurrence of events 'not,' 'and' 'or' events, mutually exclusive events. Axiomatic (set theoretic) probability, connections with the theories of earlier classes.

Unit – XI Statistics

Measure of dispersion: mean deviation, variance and standard deviation of ungrouped/ grouped data. Analysis of frequency distributions with equal means but different variances.

Unit – XII Binomial Theorem

History, Statement and proof of the binomial theorem for positive integral indices Pascal's triangle general and middle term in binomial expansion simple applications.

Unit – XIII Sequence and Series

Sequence and Series. Arithmetic Progression (A.P.), arithmetic mean (A.M). Geometric progression (G.P) general term of a G.P sum of n terns if a G.P. and A.P Geometric mean (G.M), relation between A.M. and G.M. Sum to n terms of the special series : $\Sigma n, \Sigma n^2$ and Σn^3.

Unit – XIV Three dimensional Geometry

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

Unit - XV Mathematical reasoning

Mathematically acceptable statements. Connecting words/ phrases- consolidating the understanding of "if and only if (necessary and sufficient) conditions", "implied," "and/or", "Implied by," "and," "or", "three exists" and their use through variety of examples related to real life and Mathematics. Validating the statements involving the connecting words – difference between contradiction, converse and contra positive.

APPLIED MATHEMATICS

M. Marks:100 **Time: 3 hrs**

Unit 1st Sets, Relations and Functions 13 marks

Sets and their representation, finite and infinite sets, empty sets, equality of sets, subset, powerset, universal set, venn diagram, compliment of a set, Algebra of sets (Union, intersection and difference of sets) Demorgan's laws, Cartesian product of sets.
Relations, types of relations (equivalence relation)
Definition of a function and its various types.

Unit 2nd Complex numbers and quadratic equations 13 marks

Definition of a complex number, its representation conjugate of a complex number, modulus of a complex number, amplitude of a complex number. Square root of a complex number. Cube roots of unity and its properties. Quadratic Equations with complex coefficients and roots.

Unit 3rd Sequences and Series 13 marks

Geometric progression, general term sum to terms and sum to infinity of a geometric series. Geometric and antiemetic means, Evaluation of :$\Sigma n, \Sigma n^2 \Sigma n^3$.

Unit 4th Trigonometry 11 marks

Trigonometric ratios of allied angles (without proof) sum difference formulae and their applications. Solution of trigonometric equations.

Unit 5th Permutations, Combinations & Binomial theorem 15 marks

Factorial notation, fundamental principle of counting. Meaning of P (n, r) & C (n, r) and their relations with simple applications.
Binomial theorem for any index. General term, middle terms of a Binomial Expansion. Application of binomial expansion.

Unit 6th Co- ordinate Geometry 13 marks

2 – Dimensional Geometry: Applications of section formula (centriod, incentre and orthocenter of a triangle), Equation of straight line in various forms condition of perpendicularity and parallelism.
Equation of a circle in general and standard form and in diametric form.
3 – Dimensional Geometry: Distance formula, Section formula, direction cosines and direction ratios. Projection of a line with respect to another line Angle between two lines.

Unit 7th Probability 12 marks

Random experiment and sample space. Event of a sample space and its various types. Axiomatic probability.

Unit 8th Vectors 10 marks

Definition of a vector & its representation, type of vectors, components of a vector, addition of vectors, scalar (or dot) product of vectors, Vector (or cross) product vectors, Scalar triple product (Geometrical representation).

Suggested Textbook: A Text book of Mathematics for class XI published by NCERT, New Delhi.

ISLAMIC STUDIES

Islamic education is divided into what is called individual and social education, individual aims at familiarizing the individual with:

a. His relation with the Creator of the universe;
b. His individual responsibilities in life;
c. His responsibility towards the human community;
d. His social relations;
e. His relation to other creatures;
f. His relationship to the universe and universal phenomena and exploration of nature's law in order to utilize and exploit them for the welfare of mankind.
g. His Masters creative wisdom apparent in His creation

Islamic Studies curricula also at:

1. Building a society of good, pious and God- fearing individuals where social justices prevails;
2. Building a society where tolerance, co-existences, brotherhood, love, mercy, goodness and righteousness are predominant.
3. Building a society based on mutual consultation and the maximum exploitation of the individual's intellectual capacities;
4. Building society where individuals enjoy freedom of thought and competent to take responsibility;
5. Building a society where individuals can live and ideal, pure and prosperous life.

ISLAMIC STUDIES

M. Marks: 100 **Time: 3 hrs**

Unit I: Islamic Studies: Definitions and Scope 10 marks

a. Islamic Studies: Definitions
b. Nature of Islamic Studies
c. Basic sources of Islamic Studies (The Qur'an and the Sunnah)
Scope of Islamic Studies

Unit II: Faith in Islam and its Articles 10 marks

a. Islam: the Divine Religion
b. Faith (Iman): Definition
c. Faith in Allah
d. Faith in Divine Books

Unit III: Prophet hood (Risalah) is Islam 10 marks

a. Concept of prophethood (Necessity and divine sanction)
b. Role of Prophets in human society:
   i. Education and ii. As Reformers
c. Early Prophets and their universal message
d. Introduction to some prominent prophets:
   i. Adam (AS) ii. Ibrahim (AS) iii. Yusuf (AS)
   iv. Musa (AS) v. 'Isa (AS),

Unit IV: Man in the Universe 10 marks

a. Allah the Creator and the Master of universe
b. Creation of universe purposes
c. Status of man (Vicegerency)

Unit V: Faith in Practice 10 marks

a. Impact of Faith upon the behavior of an individual
b. Sense of responsibility and accountability (consciousness, dutifulness and sincerity)
c. The social behavior of God- conscious persons (Piety, honest, modesty and kindness)

Unit VI: Life of Prophet Muhammad (SAW) at Makkah 10 marks

a. Prior to Nabuwwah: birth, childhood, marriage and the construction of Ka'bah
b. Nabuwwah and its proclamation
c. Post- Nabuwwah: major events
d. Hijrah of the Prophet (SAW)

Unit VII: Life of Prophet Muhammad (SAW) at Madinah 10 marks

a. Emergence of Muslim community
b. Characteristics of Muslim community:
i. Brotherhood (muakhat)
ii. Generosity (sakhawat)
iii. Sincerity (Ikhlas)

Unit VIII: Treatment Towards Other Communities 10 marks

a. Jews
b. Christians
c. Mushrikin
d. Importance of the treaties with other communities

Unit IX: Da'wah and other Developments 10 marks

a. Preaching of Islam at Madinah
b. Treaty of Hudaybiyah
c. Conquest of Makkah
d. The sermon of Hajjat-ul-Wida and its significance
e. Muhammad (SAW) the seal of Prophethood

Unit X: The Day to Day Life of the Prophet (a brief account 10 marks

a. Worship (Salah and Sawm)
b. Family life
c. Treatment towards the neighbours
d. Treatment towards orphans and the weaker sections of the society

Textbooks Suggested

1. Introduction to Islam by Dr. Hamidullah, Kitab BHawan, Delhi.
2. Islam at a Glance by Sadruddin Islahi, Markazi Maktaba Islami, Delhi.
3. The Noble Life of Muhammad (SAW) by Muhammad Abdul Hai, Al- Hasanad Books, Delhi.
4. Muhammad Shaltut, "Islamic Beliefs and Code of Life", in Islam: The Straight Path, edited by Kenneth W. Morgan, Motilal Banarasidas, Delhi.

VEDIC STUDIES

M. Marks: 100 **Time: 3 hrs**

Unit I: Vedic Studies: Definition and Scope — 13 marks

(i) Definition and Scope of Vedic Studies
(ii) What is Veda?
(iii) Importance of Vedas
(iv) The Vedas- Rigveda, Yajurveda, Samveda and Atharva Veda

Unit II: Origin of Vedas — 13 marks

(i) Paurusheya or Apaurusheya
(ii) Rishis and Rishikas

Unit III: Vedic gods and goddesses — 11 marks

(i) The nature and classification of the Vedic gods
(a) Terrestrial
(b) Aerial or Intermediate
(c) Celestial
(ii) Pantheism and Monotheism

Unit IV: The Later Vedic Literature — 13 marks

(i) The Brahmanas
(ii) The Aranyakas
(iii) The Upanishads

Unit V: Vedic Society — 10 marks

(i) Family, Vish (Clan), Jana (Tribe) Varnas
(ii) Education, Dress, Food and Drinks
(iii) Habits and customs, Manners and the four Ashramas

Unit VI: Role and Status of Women — 10 marks

(i) Right to Education
(ii) Institution of Marriage & Women
(iii) Position of Widow
(iv) Proprietary Rights

Unit VII: Polity and Administration 10 marks

(i) The Nature of the State- Monarchical and Republican
(ii) The Vedic Kings and Chief Officials
(iii) Popular Assemblies

Unit VIII: Economic Life 10 marks

(i) Agriculture and Cattle rearing
(ii) Occupations and Industries
(iii) Trade and Commerce

Unit IX: Vedic Values 10 marks

(i) Social Values (ii) Ethical Values

Books Prescribed:

Vedic Studies Part – I

Published by Jammu and Kashmir Board of School Education

BUDDHIST STUDIES

M. Marks: **100** **Time:3 hrs**

Unit – I Life of Gautama Buddha 10 marks

i. Birth
ii. Renunciation
iii. Enlightenment
iv. Dhamachakrapravartana
v. Mahaparinivana

Unit – II Buddhist Councils 10 marks

i. First Buddhist Council
ii. Second Buddhist Council
iii. Third Buddhist Council

Unit – III Royal Patronage to Buddhism 10 marks

i. Ashoka
ii. Menander
iii. Kanishka
iv. Lalitaditya

Unit – IV Introduction of Buddhism to J&K 10 marks

i. Introduction of Buddhism in Kashmir
ii. Introduction of Buddhism in Jammu
iii. Introduction of Buddhism in Ladakh

Unit – V Buddhist Sites of J&K 10 marks

i. Sites in Jammu Region: Ambaran (Akhnoor), Paddar (kishtwar)
ii. Sites in Kashmir Valley: Parihaspur, Harwan, Pandrethan, Ushkur
iii. Sites in Ladakh: Alchi, Thiksay, Hemis, Matho, Dakthog

Unit – VI Four Noble Truths 10 marks

i. Suffering
ii. Cause of Suffering
iii. Cessation of Suffering
iv. Path Leading to the Cessation of Suffering

Unit – VII Eight Fold Path 10 marks

i. Right View
ii. Right Determination
iii. Right Speech
iv. Right Action
v. Right Livelihood
vi. Right Effort
vii. Right Awareness
viii. Right Concentration

Unit – VIII Law of Dependent Origination 10 marks

i. Nature of Twelve Link
ii. Affliction
iii. Action
iv. Resultant of Kamic Forces

Unit – IX Four Phenomena 10 marks

i. Anitya (Impermanence)
ii. Duhkha (Suffering)
iii. Anatma (No Soul)
iv. Nirvana (Emancipation)

Unit – X Four State of Sublime Living 10 marks

i. Maitri (Friendliness)
ii. Karuna (Compassion)
iii. Mudita (Happiness)
iv. Upeksha (Equanimity)

COMPUTER SCIENCE

Maximum Marks=100 Time: 3 Hrs
Theory =70 Marks Practical =30 Marks
(Internal=10 : External=20)

1.	Computer Fundamentals	10 marks
2.	Software Concepts	10 marks
3.	Number System	05 marks
4.	Programming methodology	10 marks
5.	Introduction to C++	10 marks
6.	Programming in C++	10 marks
7.	User defined functions	05 marks
8.	Arrays and Structures	10 marks

UNIT 1: COMPUTER FUNDAMENTALS

- History of Computers
- Generations of Computers
- Functions of a Computer
- Block diagram of a Computer system
- Brief description of following functional components of a Computer system:
  - Input devices: Keyboard, Mouse, Scanner, Barcode reader
  - Output devices: Monitor, Printer
  - CPU: ALU and CU
  - Memory unit
    - Primary memory: Cache memory, RAM, ROM
    - Secondary memory: Hard disk drive, CD, DVD, Pen drive
    - Units of Memory: Byte, Kilo Byte, Mega Byte, Giga Byte, Tera Byte, Peta Byte
    - Concept of PROM, EPROM, EEPROM

UNIT 2: SOFTWARE CONCEPTS

- Definition of Software
- Types of software (System Software, Application Software, Utility Software)
- Need for Operating System
- Functions of Operating System (Processor management, Memory management, File management, Device management)
- Concept of computer languages: Machine language, Assembly language, High level language.
- Language Processors: Assembler, Compiler and Interpreter

UNIT 3: NUMBER SYSTEM

- Number Systems: Decimal, Binary, Octal, Hexadecimal
- Conversion from Decimal number system to Binary, Octal and Hexadecimal number system (Whole numbers only)
- Conversion from Binary, Octal and Hexadecimal number system to Decimal number system (Whole numbers only)
- Conversion from Binary number system to Octal, Hexadecimal number system using shortcut method (whole numbers only)
- Conversion from Octal, Hexadecimal number system to Binary number system using shortcut method (whole numbers only)

UNIT 4: PROGRAMMING METHODOLOGY

- Concept of a Program
- Characteristics of a good program
- Concept of Modular approach
- Program Documentation (Internal & External documentation)
- Program Maintenance
- Debugging a program
- Error and types of errors (Syntax error, Logical error, Runtime error)

UNIT 5: Introduction to C++

- C++ character set
- C++ tokens (Keywords, Identifiers, Constants, Operators)
- Structure of a C++ program
- Header-files (iostream.h, conio.h)
- Use of cin and cout
- Use of I/O operators(<< and >>)
- Concept of data types, Built-in data types (char, int, float, double)
- Use of clrscr() and getch() functions
- Concept of a variable
    - Rules for naming a variable
    - Declaration and Initialisation of variables
- Operators (Unary, Binary and Ternary operators)
    - Arithmetic operators (+, -, *, /, %)
    - Relational operators (<, >, <=, >=, ==, !=)
    - Logical operators (AND, OR, NOT)
    - Increment and Decrement operators(--, ++)
    - Conditional operator

UNIT 6: Programming in C++

- Conditional statements:
- if statement
  - simple if statement
  - if-else statement
  - nested if-else
- switch statement
- Loop structures:
  - while loop
  - do-while loop
  - for loop
  - Use of break and continue.

UNIT 7: User Defined Functions

- Defining Function
- Function prototype
- Invoking/Calling a function
- Call by value
- Call by reference

UNIT 8: Arrays and Structures

- Concept of Array
- Types of Arrays (1D, 2D)
- Declaration and Initialisation of 1D array
- Declaration and Initialisation of 2D array
- Defining a Structure
- Declaration and Initialisation of a structure
- Array of Structures

PRACTICALS: 30 Marks (Internal=10 : External=20)

- Programming in C++

1. WAP to add two numbers.
2. WAP to find greatest of 3 numbers.
3. WAP to find average of 10 numbers.
4. WAP to find if a number is even or odd.
5. WAP to find if a number is prime or not.
6. WAP for calculating factorial of a number.
7. WAP to create a Fibonacci series.
8. WAP to find out day of a week using switch statement.
9. WAP to swap two numbers using a function.
10. WAP to initialize and display elements of a 1D array.

- Practical file

  Practical file must contain the entire mentioned practical.

- Viva voce

  Viva will be asked from syllabus covered in class XI.

- Distribution of 20 marks for External practical
  - Programming (Logic, Syntax, documentation/ Indentation, output) (10 marks)
  - Practical file (05 marks)
  - Viva (05 marks)

INFORMATION PRACTICES

Maximum Marks: 100 Theory: Marks 70.
Practicals: Marks 30. External: 20 marks, Internal: 10 marks

TOPIC	Marks	Theory Lecturers	Practical Lectures
Computer Fundamentals	25	35	10
Software Concepts	15	20	05
Graphical User Interface	10	10	20
Basic VB Programming Fundamentals	20	15	35

Time = 3 Hours

Unit – I: Computer Fundamentals

Basics of a Computer and its operation; Functional Components and their interconnection (Block Diagram); illustrating main parts of computer (CPU, ALU, CU, Memory); Generations of Computers, Classification of Computers.

Input / Output Devices: Keyboard, Mouse, Light Pen, Touch Screen, Joy Stick, Mic, Scanner (MICR, OCR, BCR. VDU (CRT, LCD), Printers (Dot Matrix, Inkjet, LaserJet), Speaker.

Number Systems: Binary, Octal, Decimal, Hexadecimal and conversions, Coding Schemes ASCII, EBCDIC, Basic Logical Gates (AND, OR, NOT) with Truth Tables.

Memory: Primary Memory (ROM and its Types); Secondary Storage Devices (Floppy Disks, Hard Disk, Compact Disk, Magnetic Tape, Flash Devices).

Units of Memory: Bit, Nibble, Byte, Kilo Byte, Mega Byte, Giga Byte, Tera Byte, Zeta Byte.

Unit –II: Software Concepts:

Concept of Software, Types of Software, System Software, Operating System, Functions of OS [Processor Management, Memory Management, File Management, Device Management], Application Software, Utility Programs; Computer Languages: Compilers, Interpreters, Assemblers. Commonly used OS, Boot and its types; Computer Languages: Low Level Language, High Level Languages, Assembly Language; Concept of GUI and CUI.

Unit- III: Graphical User Interface:

GUI based OS: Introduction to Windows, Features of Windows, File structure of Windows, Concept of Folder, Directories, Path, Path Name, Elements of Desktop, Taskbar, Icon, Start Buttons, Shortcuts, Recycle Bin, My Computer, Start Menu; Control Panel: Adding New Hardware and Programs.

Unit IV: Basic VB Programming Fundamentals:

Introduction to VB, Concept of Event driven programming, VB user Interface, Toolbox, Project Explorer, Properties Window, Form Layout; Variables – Declaring variables, scope and life time of variables (Local & Global), Data Types: Integer, Long, Single, Double, String, Date and Variant; Operators (Arithmetic, Relational, Logical); Control Structures– IF, IF – Then, IF – Then – Else, Switch Case, Loops.

PRACTICALS Time = 3 Hours

Practicals: Marks 30. External: 20 marks, Internal: 10 marks

(Computer Peripherals, Operating Systems (Windows and Ms-Office)

1. Computer Assembly (Motherboard, Processor, RAM, Hard Disk, USB, etc)
2. Peripheral Connections and Identification of Parts (Serial, Parallel, USB, PS-2, Bluetooth).
3. Advanced Bios Setup to set a First bootable as CD Drive and a Second Bootable as HDD.
4. Installation of Operating System and Application Software's.

Windows

5. Do different Operations using Folder, Icons, Ms-Paint, Notepad, Accessories, Desktop, Taskbar, Wallpaper, Screen Saver, Date/time, My Computer and Control Panel.

MS-Word

6. Do different Operations using Ms-Word Document like Font Parameters, Alignment, Clipboard, Paragraph, Styles, ClipArt, WordArt, Borders and Shading, Find and Replace, Header, Footer and Endnote, Watermark, Mail merge, and Tables.

MS-Excel

7. Do different Calculations based on Student Marks sheet preparation, Charts, Illustrations, Formulas, Sorting of Data, and Paste Special technique.

Visual Basic:

8. Create an application using Visual Basic programming to print a message like "Hello World" using Command Button and Text Button.
9. Create an application to calculate simple interest using Command Button Only.
10. Create a VB application to calculate area of rectangle, square and triangle.
11. Create an application to calculate the grade of your class mates output of five different subjects like English, History, Chemistry, Math and IP. Calculate Grades as follows –

%age	Grade
>=90	A++
>=80 and <90	A+
>=70 and <80	A
>=60 and <70	B+
>=50 and <60	B
>=40 and <50	C
>=34 and <40	D
Less than 34	F

12. Do other programs based on Loops.

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ENGLISH LITERATURE

Syllabus & Scheme of Assessment

Maximum Marks:100 **Time: 3 hrs**

1. Reference to context type questions based on Poetry, Short Stories and Essays (one from each) with internal choice.
   3x8 = 24
2. Three long answer type questions (100-150 words) from short stories, essays and poetry based on character sketch/ description of scene/ title, theme etc to be attempted with internal choices.
   3x10= 30
3. Five short answer type questions (80-100 words) from short stories (two questions) and essays (three questions) to be attempted with internal choices.
   5x5= 25
4. Five very short answer type questions from poetry based on poetic devices (metaphor, simile, hyperbole, personification, imagery, Irony, paradox, etc) to be attempted out of given eight questions. 5x3=15
5. Six MCQ's to be asked from short stories poetry and essay (two each)
   1x6=6

Book Prescribed:

Glory: Textbook of English Literature Published by J&K BOSE.

FUNCTIONAL ENGLISH

Aims and Objectives of the Functional English Courses

(i) To enable the learner to acquire competence with special emphasis on different linguistic functions.

(ii) To reinforce the various sub skills acquired in classes IX and X with reference to reading, writing, listening and speaking.

(iii) To enable to learner with language skills that will enable him/ her to achieve his/ her Academic and career goals.

(iv) To broaden the language base that will empower the learner to use language for creative purposes.

(v) To promote personal growth and development.

The Approach to Functional English Curriculum

(i) A skill communicative approach recommended in Functional English, with graded texts followed by learner centered and teacher – friendly activities.

(ii) It is recommended that teachers consciously take a back seat, playing the role of a manager, co-ordinator and facilitator.

(iii) Texts used are varied, authentic and represent various authors to help the learner discover the various aspects of language in use.

The following Skills and their objectives are spelt out in detail:

1. **Reading**

(i) Variety in text type rather than having only short stores and prose pieces.

(ii) Activities in built with enough guidance to the teacher and learners towards acquisition of reading skills.

(iii) Vocabulary developed through word building skills.

(iv) Reading inputs cater to the needs of the students and help to prepare them for professional courses as well as vocational courses.

(v) Ten core objectives of the National Policy kept in mind while looking for reading inputs and working on the materials.

2. **Specific objectives of Reading**

a) **To develop specific study skills such as follows:**

(i) To refer to dictionaries, encyclopedia, thesaurus and academic reference material.

(ii) To select and extract relevant information, using reading skills of skimming and scanning.

(iii) To transcode information from one from to another.

(iv) To be able to read and comprehend a given text (for example advertisements,

posters, newspaper articles, reports, write- ups, extracts etc. specifically.

(v) To understand the writer's attitude and bias.

(vi) To comprehend the difference between what is said and what is implied.

(vii) To understand the language of propaganda and persuasion.

(viii) To develop the ability to differentiate between claims and realities, facts and opinion.

(ix) To develop the ability to form business opinion on the basis of latest trends available.

(x) To develop the ability to comprehend technical language as required in computer related fields.

(xi) To arrive at personal conclusion and comment on a given text specifically.

(xii) To develop the ability to be original and creative in interpreting opinion.

(xiii) To develop the ability to be logically persuasive in defending one's opinion.

b) **To develop literary skills as enumerated below:**

(i) To personally respond to literary text.

(ii) To appreciate and analyze special features of language that differentiates literary texts from non- literary ones.

(iii) To explore and evaluate features of character, plot, setting etc.

(iv) To understand and appreciate the oral, mobile, and visual elements of drama.

(v) To identify the elements of style such as humour, pathos, satire and irony etc.

c) **Speaking and Listening:**

(i) Skills overtly built into the materials. (Language skills book).

(ii) Teachers need special guidance in the actualization of the skills.

(iii) Speaking needs a very strong emphasis and is an important objective leading to professional competence.

(iv) Testing of oral skills to be made an important component of the overall testing pattern.

d) **Specific objectives of Listening and speaking Conversation Skills (Aural/ Oral)**
To develop the ability

(i) To listen to lectures and talks and to be able to extract relevant and useful information for a specific purpose.

(ii) To listen to news bulletins and develop the ability to discuss informally on wide ranging issues like current national nad international affairs, sports, business etc.

(iii) To appear for interviews and participate in formal group discussions.

(iv) To make enquiries meaningfully and adequately respond to enquiries for the purpose of travelling within the country and even abroad.

(v) To listen to business news and be able to extract relevant/important information.

(vi) To develop the art of formal public speaking.

(e) **Writing Skills**

(i) Teaching skills and sub skills of writing focused on the process of writing

(ii) Writing skills integrated with the other skills and not compartmentalized.

(iii) Sub skills of writing are taught in a context.

(iv) Courses for two years graded in such a way that it leads the students towards acquire advanced writing skills.

(v) Writing tasks move from less linguistically challenging to more linguistically challenging ones.

Specific objectives of Writing
To develop the ability:

(i) To write letters to friends, pen friends, relatives etc.

(ii) To write business letters and official ones.

(iii) To send telegrams, faxes, e-mails.

(iv) To open accounts in post offices and banks.

(v) To fill in railway reservation slips.

(vi) To write to various issues or institutions seeking relevant information, lodge complaints, express thanks or tender apology.

(vii) To write applications, fill in application forms, prepare personal bio-data for admission in college, universities, entrance tests and jobs.

(viii) To write informal reports as part of personal letters on functions, progrmmes and activities held in school (morning, assembly, annual day, sports day etc).

(ix) To write formal reports for school magazines or in local newspapers on the above events or occasions.

(x) To write presentation of opinions, facts arguments in the form of set speeches for debates.

(xi) To present papers of taking path in symposia.

(xii) To take down notes from talks, lectures, and make notes from various resources for the purpose of developing ideas into sustained pieces of writing.

(xiii) To write examination answers according to the requirement of the various subjects.

FUNCTIONAL ENGLISH

Syllabus & Scheme of Assessment

Total Marks:100 **Time 3: hrs**

The paper shall be divided into Two (02) Sections covering prose, poetry and play from Literature Reader – I and writing skills from Language Skills – I.

(Section A) Literature **50 Marks**

1) One/Two prose passages from prose chapters of Literature Reader – I followed by comprehension question on. 1x5=5

A. True/ False, Yes/ No, MCQ and Fill ups 1x5 =5

B. Vocabulary word meaning, collocation, spelling etc. 1x5=5

2) Five short answer type questions (50-80 words) from prose chapters to be attempted out of given eight questions. 4x5= 20

3) One long answer question (100- 150 words) from prose chapters of Literature Reader – I based on character sketch/ description of scene/event / title/ theme, etc to be attempted out of two. 1x10=10

4) One long answer question (100 – 150 words) from play based on character sketch/ description of scene/ event/ title/ theme, etc to be attempted one out of two. 1x10= 10

(Section B) Writing Skills **50 Marks**

To test the writing skills, following tasks are to be attempted.

1. One question based on writing a message to a friend or relative.

   Or

   One question based on E-mail writing. 1x5=5

2. One question based on Notice writing.

   Or

   One question based on Poster writing. 1x7=7

3. One question based on writing a Conversation on the given topic.

   Or

   One question based on writing a Telephonic Conversation on the given topic. 1x6=6

4. One question based on article writing on the given topic.

   Or

   One question based on report writing on the given topic/ situation. 1x10=10

5. One question based on speech writing with internal choices. 1x10= 10

6. One question based on writing on recent actions and activities with internal choice. 1x5=5
7. One question based on Note- making. 1x7=7

Books Prescribed:

1. Functional English Language Skills Book – Class XI.
2. Functional English Literature Reader – Class XI Published by Goyal Brother Prakashan in cooperation with J&K State Board of School Education.

Biotechnology

Maximum Marks: 100
Theory: 70 Marks
Practical: 30

Unit I: Introduction to Biotechnology

Chapter 01: Biotechnology: an overview **04 marks**

Biotechnology Definitions, Historical perspectives, Technology and Application of Biotechnology, Global market and Biotech products, Public perception of biotechnology, Biotechnology in India and Global trends.

Unit II: Cells and organisms **08 marks**

Chapter 01: The basic unit of Life

Cell Structure and Components, Structure and function of Cell wall, Plasma membrane, Endoplasmic Reticulum, Golgi complex, Mitochondria, Chloroplast, Vacuole, Lysosome, Peroxisome, Ribosomes, Nucleus, Cytoskeleton.

Chapter 01:Cell Growth and Development

Cell Division, Mitosis, Meiosis, Cell Cycle, Cell Communication, Nutrition, Internal Transport, Homeostasis, Reproduction, Animal and Plant development, Immune Response in Animals, Programmed Cell Death, Defense Mechanisms in Plants.

Unit III: Biomolecules

Chapter 01:Biomolecules; Building Blocks **08 marks**

Ionization of water, Concept of pH, Buffer, Carbohydrates, Classifications, Structure of Glucose, Fructose, Lactose, Sucrose, Amino acids, Classification, Zwitter ion, Isoelectric point, Fatty Acids Triglycerides, Sphingolipids, Cholestreol, Vitamins as precursors of Coenzymes, Nucleotides, Cyclic AMP.

Chapter 02: Macromolecules: Structure and Function **08 marks**

Polysaccharides, Cellulose, Starch, Glycogen and Peptidoglycan, Proteins, primary, secondary, tertiary and quartenary structure, Enzymes, Classification and Properties, Lipids and Biomembranes, Nucleic Acids, DNA and RNA.

Chapter 03: Biochemical transformation **08 marks**

Glycolysis, Fermentation, Citric acid cycle, Electron transport chain, Photosynthesis, Light reaction, Calvin cycle.

Unit IV: Genetics and Molecular Biology

Chapter 01: Concept of Genetics **10 marks**

Historical Perspective, Mendel's Law of Dominance, Law of Segregation, Law of Independent Assortment, Linkage and Crossing over, Chromosome Theory of Inheritance, Multiple alleslism, Sex linked Inheritance, Extra nuclear Inheritance.

Chapter 02: Genes and Genomes: Structure and Function **10 marks**

Discovery of DNA as Genetic Material, DNA Replication, Fine Structure of the Genes, Transcription Genetic Code, Translation. Regulation of Gene Expression, Mutations, Human Genetic Disorders, genome, Viral, Prokaryotic and Eukaryotic Genomes.

Unit V: Bioanalytical techniques **04 marks**

Chapter 1: Elementary Idea of Bioanalytical Techniques: Microscopy, Centrifugation, pH meter, Chromatography, Electrophoresis, Colorimetry.

PRACTICALS **30 marks**

1. Safety rules in the laboratory.
2. Emergency treatment for laboratory accidents.
3. Care and cleaning of glassware apparatus.
4. Operation of autoclave, incubator, water bath, pH meter, vaccum pump, centrifuges.
5. Sterilization techniques, moist heat, dry heat and filtration methods.
6. Preparation of bacterial growth medium.
7. Slide preparation of lactobacillus from curd.
8. Preparation of 0.2 M acetate and bicarbonate buffers of pH 4.7 and 9.2 respectively.
9. Cell counting.
10. Detection of carbohydrates by Molisch's test.
11. Estimation of whey protein by biuret method.
12. Temporary mount of mitosis from onion root tip.
13. Study of permanents slides of Staphylococcus, Streptococcus, Sarcina, E.coli, vibrio cholera, Streptomyces, Asperigillus, Penicillium, Spirulina, Nostoc.

ENVIRONMENTAL SCIENCE

Class 11th M. Marks: 100 Practical: 30 Theory:70

Unit 1:- Understanding Environment (7 marks)

- Concept of Environment and its types; physical, biological; and social environment.
- Scope and importance of Environmental Science.
- Components of environment.
    a. Lithosphre
    b. Hydrosphere
    c. Atmosphere
    d. Biosphere
- Origin of Earth
- Human and environment relationship.

Unit 2: Ecology (7 marks)

- Ecology (definition and types)
- Concept and structure of ecosystem)
- Trophic relationship (food chain, food web, ecological pyramids)
- Functions of ecosystem (energy flow in an ecosystem)
- Ecological Succession (types and stages)

Unit 3: Ecological Interactions and Adaptations (7 marks)

- Ecological interaction and its types
- Inter – specific interaction: positive interaction (mutualism, proto-cooperation, commensalism, sysmbiosis and scavenging), negative interaction (parasitism. Competition and ammensalism)
- Intra – specific interaction: cooperation and competitive
- Adaptations: concept and need
- Types of adaptations (with special reference to wind, light and temperature)

Unit 4: Population Ecology (7 marks)

- Concept of species, population and communities.
- Population Dynamics (population size and density, dispersion, natality, mortality, age structure)
- Population growth (exponential and logistic growth)
- Factors regulating population growth (competition, weather and climate, territory, predation, natural disasters and diseases)

- Human population growth (Malthusain theory and neo- Malthusian theory, Demographic Transition)

Unit 5: Energy Resources (7 marks)

- Concept of energy resources
- Non- renewable energy resources: coal, petroleum, natural gas
- Renewable energy resources (solar wind and hydropower)
- Nuclear energy (uses and limitations)
- Biofles

Unit 6: Earth's Environment and Natural Disasters (7 marks)

- Atmosphere: structure and composition
- Hydrosphere: distribution, hydrological cycle
- Lithosphere: structure
- Biogeochemical cycles (Carbon, Nitrogen and Phosphorous)
- Natural disasters (earthquakes, floods and volcanoes)

Unit 7: Environmental education and Awareness (7 marks)

- Concept and need of environmental education
- Formal and informal means of environmental education
- Modes of environmental awareness
- Role of NGOs
- Environmental movements (Chipko movement, Narmada Bachao Andolan)

Unit 8: Environmental Health (7 marks)

- Concept of health and disease
- Water borne diseases (Cholera, Hepatistis, Typhoid)
- Air borne diseases (Influenza, Tuberculosis)
- Soil borne disease (Tetanus; Botulism)
- Occupational diseases (Silicosis, Asbestosis)

Unit 9: Natural Resources (7 marks)

- Forest resources (types and uses)
- Animal resources (fish and livestock)
- Water resources (fresh and marine)
- Mineral resources (type and uses)
- Medicinal plants (with special reference to J&K)

Unit 10: Managing Agriculture (7 marks)

- Concept of traditional and modern agriculture
- Green revolution and white revolution
- Pesticides and fertilizers (types, advantage and disadvantages)
- Integrated pest control
- Food security

PRACTICALS:

1. Study of density and abundance of different plant species in a particular are using quadrate method.
2. Determination of water, air and soil temperature.
3. Collection of locally available herbal plants and preparation of herbarium.
4. Field work and visit to National Park/ wild life sanctuary/ STP/ water body and preparation of a field report.
5. Visit to a nearby primary or middle school to impart environmental awareness.
6. Documentation of agricultural crops, fertilizers and pesticides used in your locality.

MICROBIOLOGY

OBJECTIVES

The broad objectives of teaching Microbiology at higher secondary level are:

i. To help the learners know and understand basic facts and concepts of the subject at elementary stage.
ii. To expose the students to different basic processes and basic techniques used in Microbiology.
iii. To familiarize the learners to understand the relationship of the subject to health, nutrition, environment. Agriculture and industry etc.
iv. To develop conceptual competence in the learners so as to cope up with professional courses in future career.
v. Studying, perverting and controlling infectious disease.
vi. To develop an interest in students to study Microbiology as a discipline.

CORUSE STRUCTURE

Maximum Marks: 100 **Time: 3 hrs**

Theory: 70 marks (practical: 30 marks)

Unit I: General Microbiology 12 marks

Chapter I: History and importance of microbiology, Koch's postulates,Difference between prokaryotes and eukaryotes. Introduction to microbial world: bacteria, virus, fungi and protozoa. Scope of microbiology (medical, agricultural veterinary, sanitary, environmental, industrial and food microbiology).

Chapter II: Introduction to microscopy: Simple, Compound, Fluorescent, Phase Contrast, dark Field, Electron Microscope.

Chapter III: Five kingdom and three domain classification of organisms: Bacteria, Eucarya and Archaea.

Unit II: Bacterial structure 12 marks

Chapter IV: Morphology of bacteria: Shape, size, and arrangement, Motility. Fine structure of bacteria cell wall, cell membrane, outer membrane flagella, pilli, capsule, cytoplasmic inclusions, ribosomes and nuclear material. Structure of bacterial spore. Bacterial stains simple Grams (gram positive Gram negative) Ziehi- Neelson (Acidfast and non acidfast), capsule and spore stain.

Unit III: Bacterial Physiology 11 marks

Chapter V: Bacterial nutrition, Physical growth parameters (Temperature, pH, oxygen tension). Bacterial growth curve, Bacterial reproduction, Bacterial count: total and viable. Autotrophic, heterotrophic, thermophillic, mesophillic, psychrophillic organisms.

Chapter VI: Cultivation of bacteria. Colony characteristics, growth media liquid, solid, general differential selective enrichment transport and their preparation. Cultivation methods: aerobic and anaerobic, Isolation, identification and preservation of pure culture Lyophilization.

Chapter VII: Definition: virus, virion, viriods, prions and bacteriosphage Historical, background of virus. General characteristics of viruses. Structure of virus: capsid, nucleocapsid, envelope. Viral symmetry: icosahedral (polio virus), helical (Tobacco Mosaic Virus) and complex (pox virus). Replication of viruses.

Unit V: Protozoa, Algae and Fungi 12 marks

Chapter VIII: Protozoa, Definition, general characters classification structure and reproduction asexual and sexual

Chapter IX: Fungus: Definition, general characters classification structure and reproduction.

Chapter X: Algae: Definition general characters, classification and reproduction

Unit VI: Sterilization and Disinfection 14 marks

Chapter XI: Definition: sterilization disinfection, antisepsis, pasteurization and tyndalization. Physical agents: heat (moist/dry) desiccation, radiation, filtration and centrifugation. Chemical agents: phenol and phenolic compounds, alcohol, halogens, detergents, aldehydes, Radial walker coefficient (phenol coefficient) Segregation and disposal of contaminated waste.

Chapter XII: Antimicrobial and chemotherapeutic agents: general properties and drug resistance. Antimicrobial agents: antibacterial, antiviral, antifungal, antoprotozoal, Bactericidal and bacteriostatic agents

PRACTICALS & PROJECT = 30 MARKS

Note: Every student is required to do the following experiments during the Academic Session.

LIST OF EXPERIMENTS

Marks :10

1. Standard laboratory safety practices.
2. Washing of glassware.
3. Microscope: Parts, description, care, handling and procedures.
4. Gram staining.
5. Demonstration of Gram positive, Gram negative bacteria in prepared slides.
6. Visit to govt. institutions (microbiology laboratories) for demonstration and working of autoclave, hot air oven, laminar flow, centrifuge, glassware,

Project work with ten page write up on any on like: Gram staining, preparation of any bacteriological growth medium, streaking of plates, isolation of any microorganism.

Marks :10

BIOCHEMISTRY

Maximum Marks: 100 Time: 3 hours
Theory: 70 marks Practical: 30 marks

UNIT I: BIOPHYSICAL CHEMISTRY:

Chapter 01: Water, The molecule of life. (10 marks)

Role of water in cellular organization. pH and pKa, Buffers, physiological buffers, Handerson and Hasselbalch equation. Hydrogen Bonding with reference to Carbohydrates, Lipids, Proteins and Nucleic acids. Hydrophilic and Hydrophobic Interactions. Vanderwalls interactions, Ionic interactions, Colloids and Colloidal Biochemical solutions.

Chapter 02: Overview of Biochemistry, Definition and Introduction Biomolecules (Macro and Micro biomolecules).

UNIT II: BIOMOLECULES, THE BUILDING BLOCKS OF LIFE.

Chapter 01: Carbohydrates and Amino Acids (8 marks)

Classification, Isomerism, Epimerism, Anomerism, Stereo isomerism (D and L) and optical isomerism (dextro and laevo). Properties of carbohydrates (Redox reactions).

General structure of Amino acids. Classification on the basis of R group and charge. Essential and Non-Essential amino acids. Concept of peptide bond. Elementary idea of proteins.

Chapter 02: Lipids and Nucleic acids. (7 marks)

Definition of Fatty acids. Classification of fatty acids (odd and even, saturated and unsaturated fatty acids). General Structure of a Fat. Introduction of Phospholipids.

Introduction to nucleotides and deoxy nucleotides, Structural organization of Purine and pyrimidine. Structure of B-DNA (Watson and crick model). Types of RNA mRNA, rRNA and tRNA. Function of Nucleic acids.

UNIT III: CELL BIOLOGY:

Chapter 01 Membrane Biology (7 marks)

Cell as the fundamental unit of life Prokaryotic and Eukaryotic cell. Organization of Plasma membrane, Fluid mosaic model of Plasma membrane, extrinsic, intrinsic and trans membrane proteins. Transport (Uniport, Symport and Antiport with reference to Active and Passive transport). Osmosis and diffusion.

Chapter 02: Cellular Organelles (8 marks)

Nucleus and nucleoid. Origin of Endoplasmic Reticulum, Role of ER in secretory protein synthesis. Golgi complex and its role in post translational modifications, Structure of Mitochondria, Mitochondria

as Energy source of a cell, Structural organization of inner membrane, ETC. Chloroplast as Glucose machinery of a cell, Biochemical Reactions with reference to Stroma and Thyllakoid membrane (light and Dark reaction), Vacuole, Lysosome and its role in cellular metabolism, Nucleolus and ribosome biogenesis. Svedbergs constant.

UNIT IV: ENZYMOLOGY:

Chapter 01: Introduction to a Biochemical reaction. (6 marks)

Nature and classification of enzymes. Prosthetic group: Co-enzymes and co factors. Holoenzyme, Apoenzyme. Models of enzyme activity (Lock and key model and Induced fit model). Factors affecting enzyme activity (Substrate, pH and Temp.).

Chapter 02: Regulation: (4 marks)

Role of Activators and Inhibitors. Competitive, Non Competitive and Uncompetitive Inhibition. Allosteric enzymes.

UNIT V: NUTRITION BIOLOGY:

Chapter 01: Mechanism of Digestion (3 marks)

Mechanism of action of digestive enzymes on biomolecules (Carbohydrates, lipids, proteins and nucleic acids.

Chapter 02: Minerals (4 marks)

Calorific value of Carbohydrates, lipids and proteins and RDA. Importance of minerals (Ca, Zn, P, Fe, Cu, I, K, Mg and Na). Dietary fibres.

Chapter 03: Vitamins: (3 marks)

Nutritional sources, deficiency diseases and function of fat and water soluble vitamins.

UNIT VI: BIOANALYTICAL TECHNIQUES AND APPLICATION

Chapter 01. Techniques (5 marks)

Introduction to Estimations. Qualitative and Quantitative analysis. Ph metry, Colorimetry, Centrifugation, Electrophoresis of proteins and DNA and Paper Chromatography.

Chapter 02. Applications (5 marks)

Applications of the biochemical techniques in Cell culture, protoplast fusion, hybrid crops, Gene extraction and Gene manipulation, Forensic sciences, DNA mapping and DNA fingerprinting.

PRACTICAL Marks: 30

Laboratory work:

1. Safety precautions in the laboratory.
2. Preparation of Standard solutions (Molar, Normal and percentage).
3. Preparation of Buffers, Physiological buffers (bicarbonate buffer and Phosphate buffer. Hendeson-Hasselbalch equation, pH, pKa.
4. Determination of pH of different solutions.
5. Care and cleansing of glassware apparatus.
6. Sterilization techniques, Autoclaving, Acetone and Alcohol sterilization, UV sterilization.
7. Color reaction of carbohydrates: Molish, Iodine, Benedict`s and Barfoed`s tests.
8. Color reactions of Proteins: Ninhydrin, Biuret and Xanthoproteic tests.

Institutional visits:

1. Learn to operate Autoclave, water bath, incubator and pH meter.
2. To operate Centrifuge fo r the separation purposes.

FOOD TECHNOLOGY

Maximum Marks: 100
Theory:70
Practical: 30

Unit-I. Introduction to Food Technology: (10 Marks)

- Career in Food science and activities of food scientists.
- Scope, importance and constraints of food processing in India.
- Classification of foods on the basis of shelf life, pH and origin.
- Different types of food spoilage viz: Microbial, physical, biochemical.
- Common storage pests and their control.

Unit-II:Food Microbiology: (10 marks)

- Historical developments in food microbiology and their significance.
- Microbial spoilage of milk, meat, fruits, vegetables, cereals and their products.
- Useful microbes in food processing and human health.
- Food borne diseases(Salmonellosis, Botulism, Listeriosis, Diarrohea, Dysentry and Eschrechia coli).

Unit-III:Principles of preservation: (15 marks)

- Preservation by sugar and salt.
- Preservation by low temperature(freezing, refrigeration)
- Preservation by high temperature (pasteurization, sterilization and aseptic processing).
- Preservation through moisture removal processes viz concentration, evaporation, drying and dehydration.
- Preservation by use of irradiation.
- Preservation by use of chemical preservatives.

Unit-IV.Food Chemistry and Nutrition: (15 marks)

- Classification, sources, functional and nutritional importance of carbohydrates, proteins and fats;PCM
- Sources and functions of vitamins (fat soluble, water soluble) and minerals (calcium, iron, iodine)
- Concept of balanced diet.
- Interrelationship between health and Nutrition.

Unit-V. Packaging Technology: (10 marks)

- Functions of packaging
- Commonly used packaging materials and their properties: Glass, metal, plastic and cellulosic packages.
- Packaging requirements of fruits, vegetables, cereals, milk, meat and their processed products.
- Concept of laminates.
- Novel food packaging techniques: MAP, Active packaging.
- Environment friendly Packages: Biodegradable packaging, edible coatings.

Unit-VI.Food Quality and Safety (10 marks)

- Definition and importance of Quality.
- Traditional, modern and consumers concept of quality; Food quality attributes.
- Sampling- Purpose and methods of sampling.
- Quality Evaluation of foods(Subjective and objective methods)
- Food adulteration and common adulterants in milk, spices, honey, pulses and sugar.
- Common hazards associated with food: Physical, chemical and biological.
- Introduction to FSSA 2006
- Concept of HACCP.

Practicals: (30 Marks)

1. Microscopy- Types and working of microscope.
2. Cleaning and sterilization of glassware.
3. Gram staining.
4. Preparation of Nutrient media, techniques of inoculation.
5. Total microbial count of given food sample.
6. Preparation of standard solutions (Molar, Normal , ppm and percentage)
7. Proximate composition of different food products- Moisture, protein and fat.
8. Visit to health centers/ demonstration of various nutritional disorders.
9. Qualitative tests for determination of adulterants in: Milk, turmeric, sugar and Honey.
10. Preparation of brine and syrup.
11. Determination of adequacy of blanching.
12. Identification of different types of packaging materials.
13. Visit of students to different laboratories of Concerned Universities or nearby institution.

PHYSICS

25% of the maximum marks is allotted to numerical problems.

Maximum Marks: 100

Maximum Marks: 100
Theory: 70 Marks

Time: 3 hours
Practical: 30 Marks

Unit - I : Mathematical Tools — Marks 04

Functions, limits of function, simple ideas of differentiation integration, differentiation of x^n, e^{ax}, sin x by ab-initio method, integration of x^n, $1/x$, e^{ax}, sin x and cos x. Simple Idea of definite integral.

Unit - II : Physical world and measurement — Marks 5

Physics - Scope and excitement, physics in relation to science, society and technology. Need for measurement, units of measurement, system of units, SI Units, fundamental and derived units, length, mass and time measurement. Accuracy and precision of measuring instruments; errors in measurement, significant figures.

Dimensions of physical quantities, dimensional analysis, its applications.

Unit III : Kinematics — Marks 7

Motion in a straight line, position time graph, speed and velocity.

Uniform and non uniform motion, average speed and instantaneous velocity. Uniformly accelerated motion, velocity time graph, position time graphs, relations for uniformly accelerated motion. (graphical treatment and calculus approach).

Scalar and vector quantities, position and displacement vectors, general vector and notation, equality of vectors, multiplication of vectors by a real number, addition and subtraction of vectors, Relative velocity.

Unit vector, Resolution of a vector in a plane rectangular components, Scalar and vector product of two vectors with properties, Motion in a plane, cases of uniform velocity and uniform acceleration. Projectile motion.

Unit-IV : Laws of Motion — Marks 7

Concept of force and inertia, Newton's first law of motion, Momentum and Newton's second law of motion, impulse, Newton's Third Law of Motion. Law of conservation of linear momentum and its applications, Equilibrium of concurrent forces.

Friction, static and kinetic friction, laws of friction, rolling friction. Dynamics of uniform circular motion, centripetal force, examples of circular motion (vehicle on level circular road, vehicle on banked road).

Unit-V : Work, Energy and Power — Marks 6

Concept of scalar product of vectors, Work done by a constant force and a variable force, Kinetic Energy, Work energy theorem, Power.

Motion of potential energy, potential energy of spring, conservative forces, conservation of mechanical energy (K. E. and P. E's), non conservative forces, elastic and inelastic collision in one and two dimensions.

Unit-VI : Motion of system of particles and Rigid body. — Marks 6

Centre of mass of a two particle system, momentum, conservation and centre of mass motion, centre of mass of a rigid body, centre of mass of circular ring, disc, rod and sphere.

Concept of vector product of vectors: Moment of a force, torque, angular momentum, conservation of angular momentum with some examples.

Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, Comparison of linear and rotational motions, moment of inertia, radius of gyration.

Values of moment of inertia for simple geometrical objects (no derivation), statement of parallel and perpendicular axes theorem and their applications.

Unit VII: Gravitation — Marks 6

Kepler's laws of planetary motion, The universal law of gravitation. Acceleration due to gravity and its variation with altitude, depth and shape, Gravitational potential, gravitational

potential energy, escape velocity, orbital velocity of a satellite, geo-stationary satellite. Inertial and gravitational mass.

Unit VIII: Properties of Bulk matter — 7 Marks

Elastic behaviour, stress-strain relationship, Hooke's law, young's modulus, bulk modulus, shear modulus of rigidity.

Pressure due to fluid column, Pascal's law and its applications (hydraulic lift and hydraulic brakes). Effect of gravity on fluid pressure.

Viscosity, stoke's law, terminal velocity, streamline and turbulent flow, Critical velocity, Reynold number, Bernoulli's theorem and its applications.

Surface energy and surface tension, angle of contact, applications of surface tension, ideas to drops, bubbles and capillary rise, action of detergents.

Heat, temperature, thermal expansion, specific heat, calorimetry, change of state-latent heat. Heat transfer-conduction, convection and radiation, thermal conductivity, Newton's law of cooling.

Unit IX : Thermodynamics — 6 Marks

Thermal equilibrium and definition of temperature (Zeroth law of thermodynamics). Heat, work and internal energy. First law of thermodynamics. Second law of thermodynamics, reversible and irreversible processes. Heat engines and refrigerators (concept only).

Unit X : Behavior of perfect gas and Kinetic theory — 6 Marks

Equation of state of perfect gas, work done on compressing a gas.

Kinetic theory of gases-assumptions, concept of pressure, expression for pressure exerted by a gas, Kinetic energy and temperature, rms speed of gas molecules, degrees of freedom, law of equipartition of energy (statement only) and application to specific heat capacities of gases, concept of mean free path, Avogadro's number.

Unit XI : Oscillation and waves — 10 Marks

Periodic motion - period, frequency, displacement as a function of time. Periodic functions, simple harmonic motion (S.H.M) and its equation, phase, oscillation of a spring-restoring

force and force constant, energy in S.H.M-Kinetic and potential energies, simple pendulum- derivation of expression for its time period, free forced and damped oscillations (qualitative ideas only), resonance.

Wave motion - Longitudinal and transverse waves, speed of wave motion, Displacement relation for a progressive wave, Principle of super position of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics. Beats, Doppler effect.

PRACTICALS

NOTE :- Every student is required to perform minimum of 10 experiments and 8 activities.

EXPERIMENTS :

1. Use of vernier calipers
   - i) To measure diameter of a small spherical/ cylindrical body.
   - ii) To measure internal diameter and depth of a given beaker/ calorimeter and hence find its volume.
2. Use of screw gauge.
   - i. To measure diameter of given wire.
   - ii. to measure thickness of a given sheet.
   - iii. to measure volume of an irregular lamina.
3. To determine radius of curvature of a given spherical surface by a spherometer.
4. To find the weight of a given body using parallelogram law of vectors.
5. Using a simple pendulum plot L-T graph hence find acceleration due to gravity (g).
6. To study the relation between force of limiting friction and normal relation force find coefficient of friction between a block and a horizontal pull of the earth and study in relationship with the angle of inclination by plotting a graph between force and sin 0.

ACTIVITIES/Project work

1. To make a paper scale of a given least count e.g. 0.2 cm, 0.5 cm.
2. To determine mass of given body using a meter scale by principle of moments.
3. To plot a graph for a given set of data, with proper choice of scales and error bars.
4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.
5. To study the variation in range of jet of water with angle of projection.
6. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.
7. To study collision of two balls in two dimensions.

EXPERIMENTS

1. To determine young modulus of elasticity of the material of a given wire.
2. To find the force constant of a helical spring by plotting a graph between load and extension.
3. To determine the surface tension of water by capillary rise method.
4. To determine the coefficient of velocity of a given viscous fluid by measuring the terminal velocity of a given spherical body.
5. To find the speed of sound in air at room temperature using a resonance tube by two resonance position method.
6. To study relation between the length of a given wire and tension for constant frequently using sonometer.
7. To determine specific heat of a given solid and liquid, by method of mixtures.

ACTIVITIES/PROJECT WORK

1. To observe change of state and plot a cooling curve for melted wax.
2. To observe and explain the effect of heating on a bi-metallic strip.
3. To study the effect of detergent on surface tension by observing capillary rise.
4. To study the factors effecting the rate of loss of heat of a liquid.
5. To study the effect of nature of surface on emission and absorption of radiation.

Suggested Textbook: Textbook of Physics for class XI published by NCERT, New Delhi.

CHEMISTRY

Maximum Marks:100 **Time 3 hrs.**

Theory: 70 Marks
Practical: 30 Marks

UNIT-I: SOME BASIC CONCEPTS OF CHEMISTRY 05 Marks

General Introduction: Importance of studying chemistry, Historical approach to particulate nature of matter, Laws of Chemical combination (numerical), Dalton's Atomic Theory, Concept of elements, atoms & molecules. Atomic and molecular masses, Mole concept and molar mass, percentage composition, empirical and molecular formula; chemical reactions, stoichiometry and calculation based on stoichiometry.

Unit-II: STRUCTURE OF ATOM 05 Marks

Discovery of electron, proton and neutron, atomic number, isotopes and isobars. Thompson's model and its limitations, Rutherford's model and its limitations. Bohr's model & its limitations, concept of shells and sub-shells. Dual nature of matter and light, de-Broglie's relationship. Heisenberg's uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d- orbitals. Rules for filling electrons in orbitals- Aufbau's principle, Pauli's exclusion principle and Hund's rule . Electronic configuration of atoms, stability of half filled and completely filled orbitals.

Unit-III: CLASSIFICATION OF ELEMENT AND PERIODICITY IN PROPERTIES 05 Marks

Significance of classification, brief history of the development of periodic table , modern periodic law and the present form of the periodic table, periodic trends in properties of elements: atomic radii, ionic radii, inert gas radii, ionization enthalpy, electron gain enthalpy, electronegativity, valence.

Unit-IV: CHEMICAL BONDING AND MOLECULAR STRUCTURE

05 Marks

Valence electrons, Ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization involving s, p and d- orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear molecules (Qualitative idea only), hydrogen bond.

Unit-V: STATES OF MATTER: GASES AND LIQUIDS 06 Marks

Three states of matter: intermolecular interactions, type of bonding, melting and boiling points, role of gas laws in elucidating the concept of the molecule, Boyle's law, Gay- Lussac's law, Avogado's law, ideal behavior, empirical derivation of gas equation. Avogadro's number, ideal gas equation, deviation of real gases from ideal behavior, Liquefaction of gases, critical temperature.

Liquid state- Vapor pressure, surface tension, viscosity (Qualitative idea only, no mathematical derivation).

Unit-VI: THERMODYNAMICS 04 Marks

Concepts of system, types of systems, surrounding, work, heat, energy, intensive and extensive properties, state functions. First Law of Thermodynamics, internal energy, enthalpy, heat capacity, specific heat, molar heat capacity, measurement of ΔE and ΔH, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition ionization and dilution.

Introduction of entropy as a state function, free energy change for spontaneous and non- spontaneous process and equilibrium.

Unit-VII: EQUILIBRIUM 05 Marks

Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium: Le-Chatelier's principle: ionic equilibrium- ionization of acids and bases, strong and weak electrolytes,

degree of ionization, Concept of pH. Hydrolysis of salts (elementary idea), buffer solutions, solubility product, common ion effect (with suitable examples).

Unit-VIII: REDOX REACTIONS — 02 Marks

Concept of oxidation and reduction, redox reactions, oxidation number, balancing of chemical equations in redox reactions, applications of redox reactions.

Unit-IX: HYDROGEN — 02 Marks

Position of hydrogen in periodic table, occurrence, isotopes, preparation, properties and uses of hydrogen, hydrides-ionic, covalent and interstitial. Physical and chemical properties of water; heavy water; hydrogen peroxide-preparation, reactions and structure, hydrogen as a fuel,

Unit-X: s-BLOCK ELEMENTS (ALKALI AND ALKALINE EARTH METALS) — 06 Marks

Group 1 and Group 2 elements;

General introduction, electronic configuration, occurrence, uses, anomalous properties of the first elements in each group, diagonal relationship; trends in the variation of properties (such as ionization enthalpy, atomic and ionic radii). Trends in chemical reactivity with oxygen, hydrogen, water and halogens; uses.

Preparation and properties of some important compounds: Sodium carbonate, Sodium chloride, sodium hydroxide and sodium hydrogen carbonate. Biological importance of sodium and potassium; CaO, $CaCO_3$ and industrial uses of lime and limestone, biological importance of Mg and Ca.

Unit-XI: SOME p-BLOCK ELEMENTS — 05 Marks

General introduction to p-Block Elements

Group 13 elements: General introduction, electronic configuration, occurrence,

variation of properties, oxidation states, trends in chemical reactivity, anomalous properties of the first element in group. Boron - physical and chemical properties; some important compounds: borax, boric acids, boron hydrides.

Aluminium: uses, reactions with acids and alkalis.

Group 14 elements: General introduction, electronic configuration, occurrence, anomalous properties of the first element in group, trends in physical properties, trends in chemical properties. Carbon - catenation, allotropic forms, physical and chemical properties, trends in chemical properties, uses of oxides of carbon, important compounds of silicon and their uses: silicon tetrachloride, silicones, silicates and zeolites.

Unit-XII: ORGANIC CHEMISTRY- SOME BASIC PRINCIPLES AND TECHNIQUES 09 Marks

General introduction to organic chemistry, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds.

Electronic displacement in a covalent bond: inductive effect, electromeric effect, resonance and hyper- conjugation. Homolytic and heterolytic fission of a covalent bond, free radicals, electrophiles, nucleophiles, carbocations and carbanions. Types of organic reactions.

Unit-XIII: HYDROCARBONS 09 Marks

Classification of hydrocarbons

Alkanes: Nomenclature, isomerism, conformations (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis.

Alkenes: Nomenclature, structure of double bond (ethene), geometrical isomerism, methods of preparation, physical properties, chemical reactions- addition of hydrogen, halogen, water, hydrogen halides (Markownikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition.

Alkynes: Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of-

hydrogen, halogens, hydrogen halides and water, **Aromatic hydrocarbons:** Introduction, IUPAC nomenclature; Benzene: resonance, aromaticity; chemical properties; mechanism of electrophilic substitution - nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation; directive influence of functional group in monosubstituted benzene.

Unit-XIV: ENVIRONMENTAL CHEMISTRY 02 Marks

Environmental pollutions: soil, water and air pollution, acid rain, effects of the depletion of ozone layer, Green house effect and global warming- pollution due to industrial wastes. Lake water pollution: sources of pollutants in lake water, sources of pollution in Dal lake, Wullar lake and Mansar lake in J&K state. Green chemistry as an alternative tool for reducing pollution, strategy for control of environmental pollution.

PRACTICALS

Marks: 30 **Time: 3 Hrs.**

A) Organic Preparations:

i) Preparation of acetylene and study of its acidic character.

ii) Preparation of Acetanilide

iii) Preparation of p-Nitroacetanilide

B) Characterization and Purification of Chemical Substance:

i) Determination of melting point of an organic compound (below 100°C)

ii) Determination of boiling point of an organic liquid.

iii) Crystallization involving impure sample of any one of the following: Alum, Copper sulfate, Benzoic acid.

C) Experiments Related to pH Change

Any one of the following experiments:

i) Determination of pH of some solutions obtained from juices and solutions of

known and varied concentrations of acids, bases and salts using pH paper/ universal indicator.

ii) Comparing the pH of solutions of strong and weak acid of same concentration.

iii) Study the pH change in the titration of a strong acid with a strong base using universal indicator.

iv) Study of pH change by common-ion effect in case of weak acids and weak bases.

D) Chemical Equilibrium:

One of the following experiments:

i) Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing/ decreasing the concentration of either ions.

ii) Study the shift in equilibrium between $[Co(H_2O)_6]$ and Cl^- ions by changing the concentration of either ions.

E) Quantitative Estimation:

i) Setting of a chemical balance and preparation of a standard solution of oxalic acid.

ii) Determination of strength of a given sodium hydroxide solution by titrating it against a standard solution of oxalic acid.

iii) Preparation of standard solution of sodium carbonate.

iv) Determination of strength of given solution of dilute hydrochloric acid by titrating it against a standard solution of sodium carbonate.

F) Qualitative Analysis

Determination of one cation and one anion in a given salt (insoluble salts to be excluded):

Cations: Pb^{2+}, Cu^{2+}, As^{3+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Zn^{2+}, Ni^{2+}, Co^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+}, NH_4^+

Anions: CO_3^{2-}, S^{2-}, SO_3^{2-}, SO_4^{2-}, NO_2^-, NO_3^-, Cl^-, Br^-, PO_4^{3-}, $C_2O_4^{2-}$, CH_3COO^-

G) PROJECT

Scientific investigation involving laboratory testing and collecting information from other sources.

* Determination of BOD/ COD of locally available water sample.
* Analysis of fruit and vegetable juices for their acidity.
* Preparation of a sample of soap from available oils (Groundnut /Coconut oil).
* To dye wool and cotton clothes with any marked available dye.
* Study of the the effect of acids and bases on the tensile strength of fibres.
* Silvering of mirrors
* Compare the contents of tannic/ caffeine in various samples of tea and hence their flavor.

Note: Collaboration to sought from nearby institutions with regard to the performing of practicals/project work.

Suggested Textbook: A textbook of Chemistry for class XI published by NCERT, New Delhi

BIOLOGY

Maximum Marks: 100 **Time: 3hrs.**

Theory: 70 Marks
Practical: 30 Marks

SECTION A: (Botany) Marks: 35

Unit-I Diversity of Life 8 marks

Variety ofl iving organism Systematics, need, history and classification (Artificial, natural and Phylogenetic). **Biosystematics,** Binomial nomenclature, Two kingdom system, five kingdom system, their merits and demerits. (Detailed study of kingdom,: Monera Protista and fungi), status of some acellular organisms/Slime moulds like: viruses and viroids. Lichens taxonomic aids i.e. Botanical garden, herbaria, museum & keys.

Unit-II Kingdom Plantae 9 marks

Salient features of various plant groups for identification and their classes(Algae, Bryophytes, Pteridophytes, Gymnosperms and angiosperms). **Morphology of flowering plants and their function**. Morphology of root, stem, leaves, inflorescence, flowers, fruits and seed. Description of flowering plants of families Fabaceae, Solanaceae and Liliaceae.

Unit-III Anatomy of flowering plants 8 Marks

Tissues and tissue system, Types of Tissues, Meristematic and Permanent and their classification and functions.

Anatomy of Dicot and Monocot Root, Stem and Leaves, Secondary Growth in Dicot stems and roots.

Plant Physiology:

Transport in plants: means of transport, (diffusion, facilitated diffusion, Passive symports and anti ports, Active transport)

Plant water relations: water potential, osmosis, plasmolysis, imbibition, long distance transport of water- apoplast, symplast, pathways ascent of sap, Root pressure theory and transpirational pull theory (cohesion - tension theory).

Tranpiration: types & significance, mechanism of opening and closing of stomata, guttation, Phloem transport, flow from source to sink, (mass flow hypothesis)

Unit IV Mineral Nutrition — 10 Marks

Methods to study mineral requirement (Hydrophonics). Essential mineral, elements criteria for essentiality of nutrients. Essential elements. Micro and Macro nutrients, their role and deficiency symptoms. Mechanism of absorption of elements, translocation of solutes, soil and reservoir of essential elements. **Nitrogen metabolism,** Nitrogen cycle- Biological nitrogen fixation, 'Photosynthesis, Historical background, site of photosynthesis. Various photosynthetic pigments, Mechanism, Light reaction including PS I, PS II and photophosphorylation (Cyclic and non-cyclic). Dark reaction or Biosynthetic phase, Calvin (C_3) cycle, C_4 cycle, factors effecting photosynthesis. Photorespiration.

Respiration:- Introduction mechanism- gycolysis, Kreb's cycle. Electron transport system,Aerobic and anaerobic respiration. Respiratory quotient.

Growth and Development:- Characteristics of plant growth, phases of growth, growth curve and its components- differentiation, dedifferentiation and redifferentation, **Development,** sequence of developmental processes in a plant cell, **plant growth regulators,** discovery and physiological effects (Auxins, Gibberellins, cytokinins, ethylene and IBA, Photoperiodism and vernalisation.

SECTION B: (ZOOLOGY) Marks: 35

Unit-III Diversity in Living world. 8 Marks

i) Characteristic features ofl iving organisms.

ii) Salient features of animals (non chordates upto phylum level, chordates upto class level), Animal kingdom

iii) Zoological parks, Natural museums (with special reference to local Zoos/National Parks (Manda, Mahamaya, Dachigam, Hemis)

Unit-IV Cell-Structure and Function 10 Marks

i) **Cell-** Brief description of cell, Cell theory; Prokaryotic and eukaryotic cell, cell wall, cell membrane and cell organelles (Plastids, Mitochondria, Endoplasmic reticulum, Golgi bodies/dictyosomes, Ribosomes, Lysosomes, Nucleus, Vacoules, Centrioles), Cillia and flagella, and nuclear organization.

ii) **Cell Division:-** Cell cycle, Mitosis, Meiosis.

iii) Basic chemical constituents of living bodies.

iv) **Biomolecules:** Structure and functions of :- carbohydrates, proteins, lipids and nucleic acids, Metabolites (Pry and Secondary, Meltabolism (elementary idea)

v) **Enzymes:** Types, Properties and Functions.

Unit-III Histology and Morphology 7 marks

i) **Animal tissues:-** Epithelial, Connective, Muscular & Nervous, Organ and Organ system

ii) **Elementary Knowledge of** :-Morphology and Anatomy of Frog, Earthworm & Cockroach.

Unit IV Human Physiology 10 Marks

i) Digestion and Absorption

ii) Breathing and Respiration

iii) Body fluids and circulation

iv) Excretory products and elimination

v) Locomotion and Movement

vi) Neural control and coordination

vii) Chemical coordination and integration.

PRACTICALS

M.Marks- 15 **Time: 3 hrs.**

SECTION A: (BOTANY)

Marks: 7½

1. Study of different parts of a Compound Microscope.
2. Study of specimens and identification with reasons- Bacteria, Oscillatoria, Spirogyra, Rhizopus, Mushroom, Yeast, Liverwort (Marchantia/Moss (Funaria), Pinus (Male & female cone), Lichens.
3. Study of different modifications in
   a. Roots (Tap & Adventitious)
   b. Stems (Herbaceous & Woody)
   c. Leaves (Leaf arrangement, shape, venation, simple & Compound leaves)
4. Description of 3 locally available flowers from the families- Fabaceae, Solanaceae and Liliaceae (1 from each family)
5. Study of plant tissues from permanent slides (Parenchyma, Collenchyma, Sclerenchyma, Xylem and Phloem)
6. Study of T.S. of Dicot & Monocot Root, Stem and leaf from permanent slides.
7. Study of osmosis by Potato osmoscope.
8. Study of Plasmolysis in epidermal peels(e.g. Rhoeo leaves)
9. Study of distribution of stomato in upper and lower surface of leaves
10. To make comparative study of the rates of transpiration in upper and lower surface of leaves by cobalt chloride method
11. Study of imbibition in seeds/ raisins
12. Observation and comment on the experimental set up on phototropism.
13. To separate plant pigments through paper chromatography.

SECTION-B (ZOOLOGY)

Marks: 7½

1. Study and handling of compound Microscope.
2. Study of sailent features of specimen and identification with reasons; Amoeba, Paramoecium, Hydra, Liver fluke, Ascaris, Leech, Earth worm, Honeybee, Snail, Star fish, Shark, Labeo, Frog, Lizard and Pigeon.
3. Study of preserved specimens of at least one representative of each group to understand co-relations between characteristics of organisms and systematic position.
4. Study of animal cell and its organelles with the help of chart/slides.
5. Study of Mitosis and Meiosis from prepared slides.
6. Preparation of temporary mounts of mammalian squamous epithelium stripped muscles, fibres and mammalian blood film.
7. Study of different types of mammalian connective tissues, muscle fibres and nerve cells through prepared permanent slides.
8. Study of different systems with the help of charts/dissections-Earthworm, Cockroach.
9. Testing for the presence of carbohydrate and protein.
10. Preparation and study of human blood smear.

Project work:

1. Collection of animal specimen for school museum.
2. Visit to a zoological /National park and preparation of report.
3. Study of cyclosis in Paramoecium.
4. Study of Mitosis by using root tips of onion.
5. Study of Meiosis from flower buds.
6. Study of external morphology of earthworm, cockroach and frog.

Textbook Suggested: A Textbook of Biology for class XI published by NCERT, New Delhi.

ELECTRONICS

Maximum Marks: 100
Practical: 30
Theory: 70

Unit - I

AC Signals : **(06 Marks)**

Definition of amplitude, frequency, time period, phase, sinusoidal signals, Triangular wave, Square wave, saw tooth wave. Periodic and non periodic signals. RMS Value, average value for sinusoidal signals, phasor representation of sinusoidal signals;.

Unit - II

Passive Components: **(08 Marks)**

Resistance, Resistors, Types of resistors, variable resistance, colour code and power rating of resistors, combination of resistors (series and parallel), principle of rheostat.

Capacitance: Capacitors - types of capacitors, variable capacitors, colour codes, charging and discharging of capacitor, energy stored in a capacitor, combination of capacitors.

Inductors: Faraday's & Lenz's Law, self and mutual inductance, types of inductors, energy stored in an inductor, combination of inductors.

Unit - III

Circuits: **(12 Marks)**

DC Circuits - RC, RL and LC circuits for growth and Decay of current and voltage. AC Circuits- Pure R, L and C Circuits and RC, RL and LC and RLC series and parallel and resonance circuits.

Unit - IV

Network Theorems : **(09 Marks)**

Voltage and current sources (Ideal & Practical). KCL and KVL (with numerical) voltage

division Theorem, Current Division Theorem, Thevenin theorem, Norton theorem, Superposition theorem. (Simple numerical on circuit analysis using various theorems).

Recommended/ Suggested books :

- Basic Electrical Engineering by S.N.Singh PHI
- Introduction to Electric Circuit Analysis by Ronald J. Tocci

UNIT - V

Semi Conductors: **(09 Marks)**

Electronic configuration of atoms, crystalline structure of solids, Band theory of solids, Classification of metals, Semi conductors and Conductors on the basis of band theory. Types of semi conductors, Intrinsic and extrinsic (p & n type), semiconductors, temperature coefficient of Semi conductors.

Unit - VI

P N Junctions: **(09 Marks)**

PN-junction: concept of depletion region & potential barrier. Drift and diffusion phenomenon PH junction, operation and V- I Characteristics (Forward and Reverse bias). Zener diode, Photo diode, LED. Introduction to solar cell.

Unit - VII

Applications of Diodes **(12 Marks)**

Diode as half and full wave rectifier (qualitative treatment). Ripple factor and efficiency in half wave and full wave rectifier. Zener diode as voltage regulator. Diode as a clipper (positive and negative clipping), diode as a damper.

Unit - VIII

Bipolar Junction Transistor (BJT): **(05 Marks)**

PNP and NPN Transistor, circuit symbols, construction and V-I characteristics. Different Transistor configurations (CB&CE). Current gain α and β of a transistor. Relation between α and β.

Recommended/ Suggested books

1) Semiconductor circuit approximations by A.P.Malvino

2) Basic electronics by B.L. Theraja.
3) Principles of Electronics by V.K. Mehta & R. Mehta.
4) Basic Electronics and linear Circuits by N.N. Bhargava.

1) Identification of Electronics Components.
2) To measure Voltage (ac & dc), current (a.c & d.c.) and resistance using a Multimeter.
3) To find the value of a carbon resistor using colour coding and verify with a multimeter.
4) To find the value of a capacitor using colour code.
5) To study the common front controls of a C.R.O.
6) To find the amplitude and frequency of a.c. signal using C.R.O.
7) Verification of current Division principle.
8) Verification of voltage Division principle.
9) Verification of Thevenin's theorem.
10) Verification of Norton's theorem.
11) Verification of Superposition theorem.

1) To study the characteristics of a PN Junction.
2) To study diode as a half wave rectifier.
3) To study diode as a full wave rectifier.
4) To study the characteristics of a Zener Diode.
5) To study diode as a clipper.
6) To study diode as a damper.
7) To study the characteristics of an NPN CB configuration.
8) To study the characteristics of an PNP CB configuration.
9) To study the characteristics of a NPN CE configuration.
10) To study the characteristics of a PNP CE configuration.
11) To find the value of α and β from the characteristics curves of an NPN transistor.

GEOLOGY

Theory = 70 Marks

Practicals = 30 Marks

Time = 3 hours

Unit-I : Introduction **12 Marks**

(A) Definition of geology and its various branches viz; physical geology, mineralogy, petrology, palaeontology, stratigraphy, structural geology, geomorphology, economic geology, engineering geology and geohydrology.

(B) Physical Geology

(a) Weathering - Definition, types of weathering viz; mechanical, chemical and biological weathering.

(b) Soil formation through weathering

Unit-II : Geohydrology **14 Marks**

(A) (i) Definition of underground water, Juvenile water and connate water.

(ii) Concept of porosity and permeability.

(iii) Description of various zones of underground water, viz; zone of aeration, water table and zone of saturation.

(iv) Geological work of underground water.

(B) (i) Definition of Aquifer

(ii) Types of Aquifers

(C) Spring– Definition, Types of springs

Unit-III : Geomorphology **9 Marks**

(A) River

(I) Definition of River, stages of river.

(ii) Geological features viz; V-shaped valley, waterfall, River terraces, Meanders, Oxbow lake and Delta

(B) Glacier

(I) Definition and types of Glaciers

(ii) Geological features viz; Cirque, U-Shaped Valley, moraines Roches-Montonees and Fiords.

(C) Lake

(I) Definition and types of lakes

(ii) Lake deposits

Unit IV: Mineralogy **14 Marks**

(A) (I) Definition of mineral

(ii) Study of the following physical properties of mineral viz form, colour, cleavage, fracture, hardness, Specific gravity, lustre and streak.

(iii) Moh's scale of hardness

(iv) Physical properties of the following minerals:– Talc, Gypsum, Calcite, Fluorite, Apatite, Orthoclase, Quartz, Topaz, Corrundum and Diamond

(B) Ores

(i) Definition of Ore

(ii) Physical properties of the following Ores:– Chalcopyrite, Bauxite, Hematite and Galena.

(C) Methods of determining specific gravity of a mineral with Walker's Steelyard balance and Jolly's Spring balance.

Unit V: Petrology 9 Marks

(A) (i) Definition of a Rock

(ii) Three main types of Rocks.

(iii) Basic knowledge of texture and structure of rock as seen Megascopically.

(B) Description of the following rock types :–

(i) Granite, Diorite, Gabbro and Basalt.

(ii) Shale, Limestone, Sandstones Conglomerate and Breccia.

(iii) Marble, Schist, Gneiss and Slate.

Unit VI: **Palaeontology, Stratigraphy, Structural Geology and Engineering Geology** **12 Marks**

(A) Geological Time Scale.

(B) (i) Basic knowledge of Dip and Strike.

(ii) Construction and working of Brunton Compass and its uses.

(iii) Definition of fold and fault.

(iv) Description of various parts of fold and fault.

(v) Description with Sketches of the following structures:–Anticline, Syncline, Normal Fault and Reverse fault

(C) (i) Definition of a fossil.

(ii) Preservation and uses of fossil.

(D) Definition: Dam, Tunnel and Bridges.

Books Suggested:–

1. A textbook of Geology by P.K. Mukherjee
2. A textbook of palaeontology by S.K. Chadha
3. Engineering Geology by K.M. Banger
4. Ruttleys Elements of Mineralogy by H.H. Read.

PRACTICALS

Marks: 30 Time: 3 hours

1. Megascopic description and identification of the following minerals:–
   Talc. Gypsum, Calcite, Fluorite, Apatite, Orthoclase, Quartz, Topaz, Corrundum, Diamond, Chalcopyrite, Bauxite and Hematite.
2. Megascopic Description of the following rock types:–
   (I) Igneous : Granite, Diorite, Gabbro and Basalt
   (ii) Sedimentary: Shale, Sandstone, Canglomerate, Breccias and Limestone.
   (iii) Metamorphic: Gneiss, Schist, Slate and Marble
3. Determination of specific gravity of a mineral specimen by Walker's steel yard balance/Jolly's Spring balance.
4. Sketches and description of the following structural features.
   Anticline, Syncline, normal fault and Reverse Fault
5. Field work and Viva Voce
   The fieldwork should include collection of mineral/rock specimens and study/identification of different geomorphological features.

BUSINESS STUDIES

Maximum Marks: 100

M. Marks: 100
Theory: 90 Marks
Practical: 10 Marks

Time: 3 hours

Part A: Foundations of Business

Chapter 1: Nature and Purpose of Business — 8 Marks

- Concept and characteristics of business
- Business, profession and employment - distinctive features
- Objectives of business - economic and social, role of profit in business
- Classification of business activities: Industry and Commerce
- Industry - types: primary, secondary, tertiary
- Commerce: Trade and Auxiliaries
- Business risks - nature and causes,

Chapter 2: Forms of Business Organisations — 12 Marks

- Sole Proprietorship; Joint Family Business-meaning, features, merits and limitations;
- Partnership- meaning, types, registration, merits, limitations, types of partners;
- Cooperative Societies-types, merits and limitations
- Company: Private Ltd., Public Ltd. - merits, limitations;
- Choice of form of business organizations
- Starting a business - Basic factors.

Chapter 3: Private, Public & Global Enterprises — 10 Marks

- Private Sector and Public Sector
- Forms of organising public sector enterprises
- Departmental Undertaking
- Statutory Corporation
- Government Company
- Changing role of public sector
- Global Enterprises : meaning and features
- Joint ventures- meaning, benefits.

Chapter 4: Business Services — 8 Marks

- Nature and types of Business services - Banking, Insurance, Transportation, Ware housing, Communication.
- Banking - Types of Banks, Functions of Commercial banks, E- banking
- Insurance - principles, types: life, fire and marine
- Communication and Transportation
- Warehousing: types and functions.

Chapter 5: Emerging Modes of Business — 6 Marks

- E-Business - Meaning, scope and benefits, Resources required for successful e-business implementation, On-line transactions, payment mechanism, security and safety of business transactions;
- Outsourcing- concept, need and scope

Chapter 6: Social Responsibility of Business and Business Ethics — 6 Marks

Concept of social responsibility.

- Case for social responsibility;- Arguments for and against CSR
- Responsibility towards owners, investors, employees, consumers, government and community
- Environmental protection and business
- Business ethics: concept and elements.

Part B: Organisation, Finance and Trade

Chapter 7: Formation of a Company — 7 Marks

- Stages in the formation of a company
- Promotion
- Incorporation
- Capital Subscription
- Commencement of business

Chapter 8: Sources of Business Finance — 10 Marks

- Nature and significance of business finance
- Classification of sources - Period, ownership basis
- Sources of raising Finance:
  - Equity and Preference shares
  - Debentures and Bonds
  - Loan from Financial Institutions

- Retained Profits
- Global Depository Receipt, American Depository Receipt
- Loans from commercial Banks
- Public deposits
- Trade Credit

Chapter 9: Small Business — 6 Marks

- Concept of small business, Types.
- Role of small business in rural India;
- Problems of small business in India.
- Government Assistance, Incentives Schemes for Industries in rural, backward and hilly areas.

Chapter 10: Internal Trade — 10 Marks

- Meaning and types of internal trade: wholesale and retail.
- Services of a wholesaler and a retailer
- Types of Retail Trade:
  - Itinerant retailers and fixed shops.
  - Departmental store, super market, malls, chain store, mail order business, consumer's cooperative store.
  - Automatic Vending Machine
- Role of Chamber of Commerce and Industry in promotion of internal trade.

Chapter 11: International Business — 7 Marks

- Nature, Importance and complexities involved in International Business;

- Understanding Export and Import procedures and documentation;
- Government support assistance, Incentives;
- Export processing zone special economic zones;
- International trade institutions - WTO, World Bank, IMF, UNCTAD.

Project Work **10 Marks**

Suggestive/Illustrative Projects

Any one of the following:-

(i) Find out from local sample business unit (s) the various objectives they pursue.

(ii) Problems of setting up and running business units.

(iii) Enquiry into the ethics of running business through questionnaires.

(iv) Survey of quality of bank services in the local branch office.

(v) Study of postal and courier mail services.

(vi) Availability and use of agency services, advertising, packaging, investments in savings schemes, etc.

(vii) Survey of the popularity of credit cards issued by different banks.

(viii) Study the profile of a sole trader/partnership commenting on the nature and working of business.

(ix) Study of a Joint family business.

(x) Study of the working of any cooperative society.

(xi) Study of a small business unit regarding source of finance.

(xii) Study of nature of small traders (like hawkers and peddlers in a [illegible] locality) with reference to types of goods, capital investment, turnover.

(xiii) Study of weekly bazaar in a locality.

(xiv) Study of franchise retail store.

(xv) Study of export/import procedure of any article.

(xvi) Problems of women entrepreneurs in business.

(xvii) Survey of waste/garbage disposal by a hospitals/PrivateNursing Homes

(xviii) Study of pavement trade.

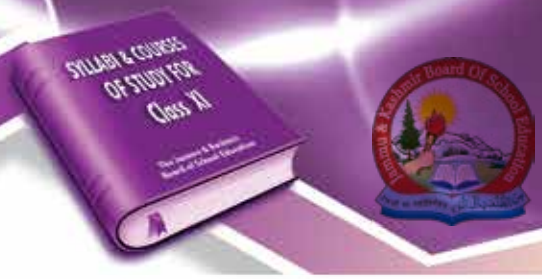
(xix) Prepare a scrapbook and collect articles on the changing role of public sector and any other topics related to the syllabus.

Marks may be suitably distributed over the different parts of the Project Report-

1. Objectives 2. Methodology 3. Conclusions - findings and suggestions

Suggested Textbook :

1. Business Studies, published by NCERT, New Delhi



ACCOUNTANCY

Theory: 80 Marks **M. Marks :- 100**
Practical: 20 Marks

Financial Accounting - I

Unit 1: Introduction to Accounting — 06 Marks

(i) Book keeping Meaning, Accounting meaning, objectives. Difference between Book-keeping and Accounting, Accounting as source of information, internal and external users of Accounting information and their needs.

(ii) Qualitative characteristics of Accounting information-reliability, relevance, Understandability and comparability.

(iii) Basic accounting terms: business transaction, account, capital, drawings, Liability (Non-current and current); Asset (Non- current; tangible, intangible assets, current assets), receipts (capital and revenue), expenditure (capital, revenue and deferred), expense, income, profits, gains and losses, purchases, sales, stock, trade receivables (debtors and bills receivable), trade payable (creditors and bills payable), goods, cost, vouchers, discount - trade and cash, bad debts, Vouchers (cash and non cash), source documents Invoices, cash memo, pay in slip, cheque.

Unit 2: Theory Base of Accounting — 06 Marks

(i) Accounting Principles-concept

(ii) Accounting principles: Accounting Entity, Money measurement, Going Concern, Accounting Period, Costs Concept, Dual Aspect, Revenue Recognition (Realisation), Matching concept, Accrual, Full Disclosure, Consistency. Conservatism, Materiality

(iii) Accounting Standards and IFRS (International Financial Reporting Standards): Concept

(iv) Bases of Accounting–Cash Basis, Accrual Basis

Unit 3: Recording of Business Transactions **10 Marks**

(i) Accounting Equation Approach–Meaning and Analysis of transactions using Accounting Equation.

(ii) Rules of Debit and Credit–traditional and modern approach.

(iii) Recording of Transactions: Books of original entry – Journal, Special Purpose Books: Cash Book: Simple Cash Book, Cash Book with Discount Column, Cash Book with Bank and Discount Columns, Petty Cash Book. Other books: purchases book, sales book, purchases returns book, sales returns book and journal proper.

(iv) Ledger-meaning, utility, format; posting from Journal and Subsidiary books; Balancing of Accounts.

(v) Bank reconciliation statement- calculating bank balance at accounting date: need and preparation.

Unit 4: Trial Balance and Rectification of Errors **5 Marks**

(i) Trial balance: Meaning, objectives and preparation, (Scope: Trial Balance with balance method).

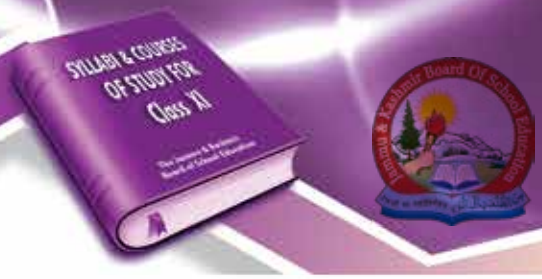
(ii) Error: Types of Errors: Errors of omission, commission, principles and compensating errors affecting Trial Balance; errors not affecting Trial Balance.

(iii) Detection and Rectification of Errors (One Sided and Two Sided); use of Suspense Account.

Unit 5: Depreciation, Provisions and Reserves **08 Marks**

(i) Depreciation: Meaning and need for charging depreciation, factors affecting depreciation, methods of depreciation-Straight Line method, Written Down Value method (excluding change in method), Method of recording depreciation-charging to asset account, creating provision for depreciation/accumulated depreciation account; Treatment of disposal of asset.

(ii) Provisions and Reserves: meaning, importance, difference between Provisions and Reserves, types of Reserves: Revenue Reserve, Capital Reserve, General Reserve, Specific Reserve and secret Reserves.



Unit 6: Accounting for Bills of Exchange **05 Marks**

(i) Bills of exchange and Promissory Note: definition, features, parties, specimen and distinction.

(ii) Important terms: term of bill, due date, days of grace, date of maturity, discounting of bill, endorsement of bill, bill sent for collection, dishonour of bill, noting of bill, retirement and renewal of a bill.

(iii) Accounting treatment of bill transactions.

Project Work (Any One)(P_1) **10 Marks**

(i) Collection of source documents, preparation of vouchers and presentation of vouchers and presentation of source document of trading and banking concerns.

(ii) Preparation of bank reconciliation statements with the given cash book and pass book with 20-25 transactions.

(iii) Collection and presentations of Hundi, Passbook, Cheque book and promissory note, Bills of exchange, Debit and Credit note and other negotiable instruments.

Financial Accounting - II

Unit 7: Financial Statements of Sole Proprietorship from Complete and Incomplete Records **22 Marks**

(i) Financial Statements: Meaning and uses

(ii) Capital expenditure and deferred revenue expenditure, Trading and Profit and loss account-Gross Profit, operating profit and net profit, Blance Sheet : need, grouping, marshalling of assets and liabilities. Preparation of Trading and Profit and Loss Account and Balance Sheet of sole proprietorship.

(iii) Adjustments of preparation of financial statements: with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, manager s commission, abnormal loss, goods taken for personal use and goods distributed as free samples.

(iv) Incomplete records: Meaning, uses and limitations. Ascertainment of profit/loss by statement of affairs method.

Unit 8: Financial Statements of Not for Profit Organisations 10 Marks

(i) Not-for-profit organizations: concept.

(ii) Receipts and Payment account: Features.

(iii) Income and Expenditure account: features. Preparation of Income and Expenditure account and Balance Sheet from the given Receipts and Payments account with additional information.

Note for teachers: (i) Adjustments in a question should not exceed 3 or 4 in number and restricted to subscriptions, consumption of consumables, and sale of assets/old material. (ii) Entrance/ admission fees and general donations are to be treated as revenue receipts. (iii) Trading Account of incidental activities is not to be prepared.

Unit 9: Computers in Accounting 8 Marks

(i) introduction to Computer and Accounting Information System (AIS), Application of computers in accounting:

(ii) Automation of accounting process, designing accounting reports, MIS reporting, data exchange with other information systems, Comparison of accounting processes in manual and computerized accounting, Sourcing of accounting system: readymade and customized and tailormade accounting system.

(iii) Accounting and Database Management System.

(iv) Stages in automation (a) Accounting Process in a computerised environment (b) Sourcing of accounting Software (Kinds of software: readymade software; customised software and tailormade software; Generation of reports using TALLY and BUSY-Trial balance, profit and Loss account and Balance Sheet.

software; customised software and tailormade software; Generation of reports using TALLY and BUSY Trial balance, Profit and Loss account and Balance Sheet.)

Project Work (Any One) (P_2) **10 Marks**

1. Comprehensive project starting with journal entries regarding any sole proprietorship business, posting them to the ledger and preparation of Trial balance. The students will then prepare Trading and Profit and Loss Account on the basis of the prepared trail balance. Expenses, incomes and profit (loss) are to be depicted using pie chart/bar diagram.
2. Comprehensive project of Not for profit organisations starting with preparation of Receipts and payments account and Income and expenditure account.
3. The above projects can be presented by using software packages T-ally of Busy.

The above mentioned projects should be presented in a project file which should be made available for evaluation.

Books Suggested

1. Accountancy Published by NCERT

ENTREPRENEURSHIP

Theory: 70 Marks **Time: 3 hrs**
Practical: 30 Marks **MM: 100**

UNIT-I 9 Marks

ENTREPRENEURSHIP

I. Concept of entrepreneurship: Meaning, Definition and characteristics.
II. Functions and need of entrepreneurship.
III. Role of entrepreneurship in Economic development.
IV. Barriers to entrepreneurship: Economic and technological.

UNIT-II 9 Marks

ENTREPRENEUR

I. Meaning, Definition and characteristics.
II. Types of entrepreneur.
III. Role & problems of women entrepreneur.
IV. Role of entrepreneur in generating national wealth and creation of employment.

UNIT-III 7 Marks

ENTREPRENEURIAL VALUES & MOTIVATION

I. Entrepreneurship motivation-Meaning & Concept.
II. Six C's for entrepreneurial motivation: Change, Challenge, Creativity, Curiosity, Control & Cash.
III. Help & support to entrepreneur by state & central bodies.

UNIT-IV **8 Marks**

ENTREPRENEURIAL SKILL DEVELOPMENT PROGRAMME.

I. Entrepreneur Skill-Meaning & Concept.
II. Importance of Skill development.
III. Techniques of skill development.
IV. Qualities of a successful entrepreneur.

UNIT-V **7 Marks**

INTRODUCTION TO MARKET DYNAMICS

I. Meaning of market dynamics.
II. Causes of market dynamics.
III. Competitive analysis of market.

Unit VI **8 Marks**
SMALL ENTERPRISES

I. Meaning, Definition and characteristics of small enterprise.
II. Objectives of micro enterprises.
III. Role of Micro enterprises in economic development.

Unit VII **9 Marks**
PROJECT SELECTION & FORMULATION

I. Meaning of project.
II. Project identification & steps in process of project selection.
III. Meaning & significance of project report.

Unit VIII **7 Marks**
PROJECT APPRAISAL

I. Meaning of Project appraisal
II. Methods of Project appraisal:
(a) Economic (b) Financial (c) Technical

Unit IX: 9 Marks
FINANCING OF ENTERPRISE

I. Meaning & need of financial planning.
II. Sources of Finance: Long term & Short term.
III. Capital Structure: Meaning and Factors determining capital structure.

Unit X: 7 Marks
OWNERSHIP STRUCTURE

I. Proprietorship: Meaning, Features & Importance.
II. Partnership: Meaning, Features & Importance.
III. Company: Meaning, Features & Importance.

PROJECT: Marks: 20

Introduction:

The Main objective of the course in Entrepreneurship is to generate in the students initiative, self reliance and enthusiasm so as to empower them to become entrepreneurs both in spirit and performance.

A number of skills such as observation, evaluation, communication, resource mobilization and management, risk assessment ,team building etc. are also to be developed in the students. Leadership qualities, sensitivity to business ethics and adherance to a positive value system are the core issues that the course highlights while presenting different concepts related to entrepreneurship.

Such a course should necessarily have a strong experiential component in the form of practical work. The objectives of the practical work are:

1. To introduce the students to the world of business by developing in them the core skills and competencies required for an entrepreneur.

2. To develop in the students qualities such as leadership, self-confidence, initiative, facing uncertainties, commitment, creativity, people and team building, integrity and reliability.
3. To enable the students to acquire the skills and knowledge needed for conducting surveys, collecting, recording and interpreting data and preparing simple estimates of demand for products and services.
4. To guide the students to prepare a Project Report.
5. To equip the students with knowledge and skills needed to plan and manage an enterprise through case studies conducted and recorded by the students in different fields such as resource assessment, market dynamics, finance management, cost determination, calculation of profit and loss etc.
6. To instill in the students important values and entrepreneurial discipline.

FORMAT OF PROJECT

Total marks: 30 Marks

1.	**Project Report/Survey Report**	**10 marks**
2.	**Viva-Voce on PW /SR**	**5 marks**
3.	**Case Study**	**10 marks**
4.	**Problem Solving**	**5 marks**

1. **Project Report/Market Survey Report**

a) **Project Report:**

Preparation of a Project Report for an enterprise involving products/services. Students may be provided adequate guidance to choose a project based on their interests and availability of information and authentic inputs in the locality. The specimen proforma of project report given in the textbook may

be used for preparing the report. However, mechanical preparation of the report by filling in the information in the proforma should be discouraged.

Further, as the students will be required to appear for a Viva-voce on the basis of their projects, sufficient care should be taken by the students to prepare the report after studying the various aspects involved thoroughly. In a nutshell, the project report should lead to viable enterprise.

b) Market Survey Report

Market research is the process and technique of finding out who your potential customers are and what they want. The survey may be on products and services already available in the market or students may also conduct surveys for new products and services. The report of the survey should be organised under the following broad headings:

1. Objects.
2. Methods and tools (interviews, questionnaires etc.) to be used to collect information.
3. Records of data and information.
4. Analysis of data and information.
5. Interpretation and conclusion.

For example, a survey may be conducted to find out the choice of households in toiletry soap, tooth paste etc. The data may be analysed to establish a pattern that may be useful to an entrepreneur.

Guidelines for assessment of Project Report/ Survey Report

For purpose of assessment the same pattern shall be adopted for Term II also.

1. Presentation: Format, Clarity, Use of graphs, tables and other visuals, organisation, methodical recording of data and information and general neatness of execution.
2. Originality and Creativity

3. Authenticity of information and correctness of calculations and general feasibility of the project/ sustainability of conclusion drawn in the survey.

4. Viva Voce on the Project /Market Survey Report

The questions should establish that the report is the original work of the student and that the student has a reasonably clear understanding of the work carried out by him/her. Entrepreneurial qualities such as leadership, self-belief, creativity, originality, initiative etc. may also be assessed by asking a variety of questions related to the report.

2. Viva-voce

3. Case Study

A case study is a focused research on an organisation, enterprise, practice, behaviour or person undertaken to highlight an aspect that the study attempts to examine. For instance, a case study may be conducted on the pollution control methods being employed by an industry. Or a successful industrialist may be chosen as a subject of a case study to analyze and understand the strategies that the industrialist adopted :to achieve success. Ideally, a case study should be conducted on subjects with the objectives of bringing to the fore beliefs, practices, strategies, values etc. that have made them what they are. Such studies help us to understand the way in which great minds think and operate. We may also conduct case studies on failures; why a company collapsed, how a service lost its market etc. From both the types of case study, we learn lessons; how to do something or how not to do something. They also provide valuable insight into the processes involved in an enterprise. A few topics are suggested for carrying out case studies:

i) Drawing a profile of a successful entrepreneur. ii) Studying a public sector undertaking and highlighting its success/failure, by analyzing the factors responsible.

iii) Studying a small scale unit in the locality to bring out the procedures and processes adopted by the unit to become a feasible business venture.

iv) A study of competition in business by choosing two or more rivals in the market and analyzing their strengths and weaknesses.

v) Take the school itself for a case study and analyze any two aspects of the school plant for chalking out a plan of action: infrastructure, academics, co-curricular activities etc.

vi) A case study on a thriving fast food shop/restaurant in your locality. What makes it so popular?

vii) A case study on the ways in which a business unit has mobilised its financial resources.

viii) A case study on the enterprise management techniques adopted by a business house.

ix) A case study on the marketing strategies of a successful consumer durable company.

x) A case study on the financial management of a Public Limited Company.

xi) A case study on any Specialized Institution that supports and guides the establishment of a small scale unit.

xii) Studying the balance sheets of two big private companies to assess their trade and credit worthiness.

xiii) Studying the inventory management of a large manufacturing industry to ascertain the processes involved for optimizing cost.

xiv) Carrying out a case study on an established industrial house/company to find out the value system of the company and how it fulfils its social commitment/ obligations.

xv) Carrying out a case study on an established industry to ascertain the processes followed to reduce/prevent pollution.

xvi) Study on environment friendly companies and their contribution to preservation.

Assessment of Case Studies

i) Presentation: Format, accuracy, clarity, authenticity and general neatness

ii) Analysis and Conclusions

4. Problem Solving

In this session, the students will be required to solve a problem in the form of a written test. The examiner may choose any problem related to the units in class XI Text Book and set it for the class. The problem may be in the following areas:

a. How to scan the environment to establish the feasibility of a project.

b. Given certain figures showing the consumption pattern of a product, drawing conclusions that have a bearing on similar products.

c. Carrying out market assessment for a given product/service to ascertain the feasibility factor.

d. Assessment of Working Capital.

e. Calculation of total cost of production.

f. Calculation of break-even point.

g. Determining location of a manufacturing unit.

h. Problems in inventory control (calculation of the Economic Order Quantity and carrying out ABC analysis).

i. Applying Pricing methods to determine the price of a product or service.

j. Applying promotion mix to plan a sales campaign for a product or service.

k. Working out a simple budget for a given task or job.

Assessment of Answers

The examiner may prepare five problems which are solved by him/her before they are presented to the students. The student may choose anyone of the problems and solve it, showing the different steps/different reasons involved in the solution. If the problem does

not involve actual calculations, it may not have anyone correct answer. So weightage should be given not only to the final answer but to the entire process of problem solving that the student has followed.

Originality and innovative spirit should be rewarded. The students should not be penalized for spelling errors, grammatical mistakes etc. as long as the answer is coherent. Where definite formulas are involved, accuracy should be given due weightage.

Textbook Suggested:
A textbook of Entrepreneurship for class 11th published by CBSE, New Delhi

TYPE WRITING& SHORTHAND

M. Marks: 100
Practical
Internal: 50 Marks
External: 50 Marks **Time: 3 hrs**

25 Marks

A. Typewriting/On Machine/Computer Key Board.

There shall be one practical paper of 25 Marks. The paper shall contain the following exercises.

i.	Passage of 350-400 words (prose)	7 Marks
ii	A business letter	6 Marks
iii.	A tabular statement	7 Marks
iv.	Viva- voce.	5 Marks

In viva- voce knowledge of

(a) Key Board of Typing machine/Computer
(b) Function of different parts of machine (typewriter /Computer)
(c) Type setting and
(d) Maintenance of typewriter shall be tested

The length of the above material will be in accordance with the time allowed. Accuracy and arrangement shall be given paramount importance. The speed expected of the examinees shall be 25 words/minute. Actual time taken by the examinees in typing out the passage- shall be noted on the answer sheet.

B. Shorthand **25 Marks**

There shall be one practical paper of 25 marks, the candidate shall be required to taken down dictation in shorthand at speed of 50 words/ minute. The material for shorthand may be a passage of 600-800 words.

After taking down dictation students shall be required to transcribe the same in their own handwriting in longhand.

The outline of the shorthand shall have to be attached by the candidate with the answer sheet. Distribution of marks shall be as under :

(a)	Outline	6 Marks
(b)	Transcription in Long hand	14 Marks
(c)	Viva- voce	5 Marks

In viva-voce knowledge of consonants and vowels, Grammon logues, Contractions, abbreviations, suffixes and prefixes, etc shall be tested.

PRACTICAL

Time: 3 hrs

C. Typewriting/On Machine/Computer Key Board. 25 Marks

There shall-be one practical paper of 25 marks. The paper shall contain the following exercise

(a)	Passage of 350-400 words	7 Marks
(b)	A business letter	7 Marks
(c)	A tabular statement	6 Marks
(d)	Vice-voce	5 Marks

D. Shorthand 25 Marks

There shall be one practical paper of 25 marks. The candidate shall be required to take down dictation in shorthand at speed 50 words/minute. The material for shorthand may be a passage of 600-800 words.

After taking down dictation students shall be required to transcribe the same in their own hand writing in long hand.

The out line of the short hand shall have to be attached by the candidate with the answer sheet Distribution of marks of different exercise shall be as under:

(a)	Outline	6 Marks
(b)	Transcription in long hand	14 Marks
(c)	Viva-voce	5 Marks

Books Suggested:

Shorthand by pitman.

BUSINESS MATHEMATICS

Marks: 100 Time: 3 hours

Unit 1st: Sets, Relations and Functions 13 Marks

Sets and their representation, various types of sets ,compliment of a set . Algebra of sets (Union, intersection and difference of sets). Demorgan's laws, Cartesian product of sets .

Relations: Various types of relations, Equivalence relation simple examples

Definition of a function and its various types (Into, onto, one-one, many-one, polynomial function, rational, modulus, constant , signum, greatest integer function, composite function) .

Unit 2nd: Sequences and Series 13 Marks

Geometric progression, general term sum to n terms, and sum to infinity of a geometric series . Geometric and arithmetic means , Evaluation of Σn , Σn^2 , Σn^3

Unit 3rd: Trigonometry **13 Marks**

Trigonometric ratios of allied angles (without proof). sum, difference formulae and their applications . solution of trigonometric equations .

Unit 4th : Permutations and combinations **11 Marks**

Factorial notation, fundamental principle of counting. Meaning of P(n,r) and C (n,r) and their relations with simple applications.

Unit 5th: Binomial theorem **10 Marks**

Binomial theorem for any index. General term, middle term/s of a Binomial Expansion. Applications of binomial expansion.

Unit 6th: Statistics **16 Marks**

Measures of dispersion, Mean Deviation from mean and median.

Standard deviation and variance of a grouped and ungrouped data.

Quartile deviation.

Unit 7th: Probability **14 Marks**

Random experiment and sample space (set representation). Events and their occurrence. various types of events. Mutually exclusive and Exhaustive events . Axiomatic probability with applications.

Unit 8th: Linear Inequations **10 Marks**

Algebraic solution of an inequation in one variable and the representation on a number line. Graphical solution of linear inequations in two variables.

Books Suggested:

1. A Textbook of Mathematics for Class XI published by NCERT, New Delhi

TRAVEL AND TOURISM MANAGEMENT
(Basic)

Maximum Marks: 100 **Time: 3 hours**

Unit I — 10 Marks

Meaning, History and Importance of Travel and Tourism, Meaning of Tourist, Traveller, Transient & Excursionist, Types and Forms of Tourism, Concept of Mass Tourism/Eco-tourism and Sustainable tourism.

Unit II — 10 Marks

Meaning, Features and Elements of Tourism Product,. Difference between Tourism and Consumer Product. Tourism Products of J&K - Fairs & Festivals (Kheer Bhawani,Chrar-e- Sharief, Sindhu Darshan , Jhari mela, Eid in J&K, Navaratra in Jammu, Losar in Ladakh region).

Unit III — 10 Marks

Tourism destinations:- Srinagar- Pahalgam & Gulmarg, Jammu-Patnitop & Mansar, Ladakh- Leh & Zanskar, Shrines: Hazartbal, Hemis, Amarnath and Vaishno Devi.

Unit IV — 10 Marks

Flora and Fauna of J&K - Parks/Wildlife Sanctuaries, Physiographic Divisions and Climate, Handicrafts of J&K, Craft Mela-Jammu and Kashmir Haat, Cuisine-Wazwan.

Unit V — 10 Marks

Role of Ministry of Tourism (Govt. of India), ITDC, J K TDC, Hill Development Council of Ladakh in promoting Tourism .

HOTEL MANAGEMENT

Unit VI: **10 Marks**

Meaning, Concept, Origin and Development of Hospitality Industry, Current Development and future scope. Importance of Customer Care in Hospitality

Unit VII: **10 Marks**

Accommodation: Meaning & Scope, Types of Accommodation. Types of Hotels on the basis of their Size, Location, Comfort, Price and Ownership, Difference between Hotels, Motels and Resorts.

Unit VIII: **10 Marks**

The important Functional Departments of the Hotel, their functions and Organizational Structure.

Unit IX: **10 Marks**

Registration and Gradation of Hotels, Understanding Hotel functioning and Preparing report by visiting Star category Hotels- like Grand Palace, Hotel Broadway, Hotel Asia, Hotel K.C. Residency etc.

Unit X: **10 Marks**

Meaning and Definition of Hospitality Distribution Channels, Functions and Levels of Distribution Channels, Basics of Major Hospitality Distribution Channels- Travel Agents, Tour operators, Consortia and Reservation System.

References:

1. Travel, Tourism & Hotel Management - S. Chand and Co. Ltd. New Delhi in collaboration with J&K State Bose

PHYSICAL EDUCATION

Max. Marks: 100 **Time : 3 Hrs**

THEORY = 70, Practical = 30

UNIT- I

1. CONCEPT OF PHYSICAL EDUCATION 7 Marks

1.1) Meaning and definition of Physical Education.

1.2) Aims and objectives of Physical Education.

1.3) Need and importance of Physical Education.

UNIT-II

2. PHYSIOLOGICAL ASPECTS OF PHYSICAL EDUCATION

7 Marks

Effects of exercise on:

a. Muscular system.

b. Circulatory system.

c. Respiratory system.

d. Digestive system.

Unit-III

3. PSYCHOLOGICAL ASPECTS OF PHYSICAL EDUCATION

7 Marks

3.1) Definition of psychology and sports psychology.

3.2) Achievement and motivation in sports.

Unit IV

4. CAREER ASPECT IN PHYSICAL EDUCATION **7 Marks**

1.1) Career options in physical education.

1.2) Avenues for career preparations.

UNIT V

5. HEALTH AND FAMILY EDUCATION **7 Marks**

5.1) Concept and importance of health Education.

5.2) Effect of alcohol, tobacco and drugs and & abuse on individual, family, Community and sports person.

UNIT VI

6. CONCEPT OF MAJOR GAMES/SPORTS: **7 Marks**

KHO-KHO, BADMINTON, KABADDI, HANDBALL, ARCHERY, HOCKEY.

1.1) History of games (Above Games)

1.2) Rules, measurement of the field. (Above Games)

1.3) Fundamental skills and Sports Terminology .

UNIT VII

7. NATIONAL GAMES **7 Marks**

1.1 National events.

1.2 National awards.

UNIT-VIII

OLYMPIC GAMES **7 Marks**

2.1) History of Olympic Games.

2.2) Olympic Village.

2.3) Olympic Rings and Torch

UNIT- IX

9. DIET AND ITS IMPORTANTANCE IN PHYSICAL DEVELOPMENT

7 Marks

1.1) Diet and physical fitness.

1.2) Obesity and its causes.

1.3) Balanced diet.

UNIT-X

10. COMMON SPORTS INJURIES & REHABILITATION **7 Marks**

1.1) Muscle pull, sprain and strain.

1.2) Dislocation, Fracture.

Practical **Marks: 30**

1.	Camping and nature study	6 Marks
2.	Track & field (Three events)	6 Marks
3.	Project work.	3 Marks
4.	Physical fitness test	6 Marks
5.	Skill test of game/ sports (Any two games/sports)	6 Marks
6.	Viva-voce	3 Marks

HOME SCIENCE

(FULL STREAM)

FAMILY HEALTH CARE & PREVENTION

Max. Marks: 100

Marks : 70 (Theory)

Practicals: 30 Marks

Time: 3 hours

Unit I : Good Health — 12 Marks

- Definition of health - Dimensions of good health.
- External characteristics of good health.
- Height-weight norms for different age groups.
- Common health problems in India.
- Factors affecting health (Nutrition, Rest, Sleep, exercise, fatigue, posture, habits, substance abuse, clothes and footwear.
- Concept of Mental health.

Unit II : Diseases — 12 Marks

- Water/Air borne disease and other common diseases.
- Causes, mode of spread, symptoms, prevention and control of the following: Typhoid, Cholera, bird flu, measles, mumps, plague, chicken pox, polio.

Unit III : Health Care Services. — 11 Marks

- Role of Health Care Services at gross root level, state level and at the central level. ANP, ICDS, NNP, NRHM
- Primary Health Care Services and characteristics.

- National Health policy - Aim/Objectives.

Practicals **15 Marks**

1. Look for sign of good/poor health within your family.
2. Checking their own height and weight to determine whether they conform to norms for Indian Conditions.
3 Talk by a general physician on the signs of good and poor health.
4 Interaction with a PHE expert person and visit for a water filtration plant on source of water purification.
5 Visit to Primary Health Centre (PHC) in your own locality and maintain a record of the facilities being provided.

Family Health Care and Prevention

Unit IV: Hygiene and Environment **12 Marks**

- Personal Hygiene and its importance: - Personal cleanliness.
- Waste disposal methods - rural and urban.
- Using safe drinking water. Importance of potable water for good health, qualities of safe drinking water, household methods of making water safe for drinking.
- Human Environment interaction: Environmental issues and problems.

Unit V: First Aid and Home Nursing **12 Marks**

- How to handle simple emergencies in the home) Cuts, burns, scalds, electric shocks, choking of food, sprains, Insect and snake bite), food allergies, medicine.
- First Aid kit: its contents.
- The sick room: - Choice and preparation of sick room. How to make a bed.
- How to disinfect a room.
- The role of traditional and local system of medicine.

Unit VI: Population Education **11 Marks**

- Population Explosion: - Definition, meaning, causes, effect of over population and its control.

- Population Education and its Aim.
- Importance of girl child, Govt. incentives to improve status of girl child (with ref. to state)

Practical : **15 Marks**

1) Conduct a symposium on method of maintaining and preserving the environment.
2) Maintain the cleanliness and hygiene of the Home Science~laboratory.
3) Taking and recording body temperature, pulse rate,:respiration rate.
4) Preparation of First Aid Kit.
5) Make poster and charts, emphasizing the need for personal and environmental hygiene.
6) Prepare a list of Ten (10) traditional Home remedies being practiced at your Home.

FOOD SCIENCE

Max. Marks: 100 **Time:** 3 hours

Marks :70

Practicals:30

Unit I : Food and Nutrition — 12 Marks

- Definition of food, food nutrients, hutrition, optimum nutrition and Malnutrition.
- Functions of food, specific functions of Nutrients, sources of Nutrients.
- Malnutrition - Indications of Malnutrition, Types of Malnutrition laying stress on P.E.M (Protein Energy Malnutrition)

Unit II : Utilization of Food in the Body — 12 Marks

- The digestive system & its functions.
- Digestion, absorption, transport and utilization of food in the body.
- Metabolism of Protein, Carbohydrates and Fats.
- Importance of water and fibre in our diet.

Unit III : Food Preservation — 11 Marks

- Importance of food preservation.
- Causes of food spoilage.
- Principles of food preservation.
- Methods of food preservation. (House hold and Commercial).

Practicals : — 15 Marks

- Draw and label the different parts of the digestive system.
- Observation of Children in a pediatric ward of a local hospital to note sign and symptoms of different conditions of malnutrition.
- Preparation of Fruit squashes, Jams, Murrabas, Pickles, Sun drying of fruit and vegetables.

Unit IV: Planning a Balanced Diet — 14 Marks

- Definition of Kilocalorie, Calorie.
- Nutrition of infants, Toddlers, children, Adolescence and Adults.
- Nutrition for special condition: - pregnancy/lactation, invalids and convalescents.
- RDA (Recommended dietary allowances) for all the. above mention categories.
- Meal planning: - Importance and factors affecting meal planning.

Unit V: Food Selections & Preparation — 14 Marks

- Selection and storage of Perishable, semi-perishable and non-perishable foods.
- Standards, weights and measures for foods.
- Reason for cooking food, methods of cooking food.
- Moist heat, dry heat and frying.
- Action of heat on various nutrients and changes in nutritional values, color.
- Methods of enhancing nutritional value - germination, fermentation, fortification and proper food combination.

Unit VI: FOOD SANITATION — 7 Marks

- Definition and meaning of Food hygiene.
- Factors affecting safety of food at home.
- Principles of food hygiene.
- Diseases transmitted through food, their signs, symptoms and prevention.
- Food Adulteration: - Definition and measuring.
- Common adulterants present in Cereals, pulses, milk and milk products, fats and oil,

sugar jaggery, honey, spices and Condiments.

- Ill effects of some of the adulterants present in the foods, kesari dal, metanil yellow, argenone seeds.
- Safety against Food Adulteration: - Prevention of food Adulteration Act.
- Standard marks on Foods. FPO, ISI, AGMARK.
- Food Laws: - Their Importance and Aim.

Practicals

15 Marks

- Practical experience in planning a days' meal for :-
  - Vegetarian
  - Non-Vegetarian
  - Different age groups.
  - Pregnancy and Lactation.
- Survey of local and regional dietary pattern.
- Market survey of cost and availability of food in general use. Weighing and measuring of foods.
- Practical experience in preparing meals for the family.
- Detection of Adulterants present in foods:- Cereals, pulses, Milk, Condiments.

MANAGEMENT OF RESOURCES

Theory: Marks : 70

Practicals:30 Marks

Unit I : Family Resources **12 Marks**

- Meaning and definition of resources.
- Classification of Resources - Human and Material Resources.
- Characteristics of Resources.
- Factors affecting the use of resources.
- The Management Process - Planning, Organizing, Implementing, Controlling and Evaluation.
- Qualities of a Good Home maker.

Unit II : Housing **14 Marks**

- Housing - Factors affecting minimum need for satisfactory living.
- Factors affecting selection of house(Site, Soil, Physical Features, Sanitary Conditions, Practical Convenience)
- Selection of furniture, furnishing and household equipments.
- Principles in planning a house.
- Requirement & Arrangement of furniture in different rooms of the house.
- Interior Decoration - Principles of Art, Importance of color in the home, Use of plants and flowers as decoration.

Unit III : Disinfection and Pest Control **9 Marks**

- Common household pest and their control measures.
- Different types of pest control : Preventive and curative.
- Disinfectants: Classification and use.
- Cleanliness and sanitation - Cleaning of the house.
- Cleaning and polishing of Metals (Brass, Copper, Silver, steel and Aluminum).
- Cleaning of wooden surfaces, Glass, Wicker, Tiles and Marble surfaces.

Practicals **15 Marks**

- Make a diagrammatic representation showing arrangement of furniture in different rooms.
  a) Drawing room. b) Bed room c) Multi-Purpose room.
- Making Rangoli patterns for different occasions.
- Making different types of flower arrangements.
- Cleaning of metals.
- Cleaning of window panes.

Unit I : Resource Management. 11 Marks

- Meaning and types of values, goals and standards.
- The family cycle: Decision making in family living.
- Planning for the use of resources on short term & long term basis.
- Need to manage the resources and methods of Conservation of shared resources.

Unit II : Time and Energy Management 12 Marks

- Time plan: Need and steps in preparing time plan.
- Importance of Rest and Leisure.
- Energy cost of different activities carried out in the home.
- Work Simplification - Meaning and Methods.
- Fatigue: Types, Ways of reducing fatigue.
- The relation of energy to the stages in the family life cycle.

Unit III : Money Management 12 Marks

- Family Income: Money Income, Real Income (Direct, ,Indirect) and Psychic income.
- Family Budget: Importance, types, steps in preparing budget.
- Means of supplementing family income.
- Savings: Need and methods of Savings.
- Consumer Education: Need and importance. Brief history of development of Consumer Education.
- Consumer Protection Act - Its salient features.
- Consumer's: Rights and Duties.

Practical 15 Marks

1) Preparing a Time plan for the mother and self.
2) Make a budget for the family.
3) Make a list of real Income available for their family.
4) Fill bank and post office saving account form.
5) Get practical experience in opening a savings account in the bank.
6) Survey of the locality to assess the awareness of the residents about their Consumer's Rights and Responsibilities.

पाठ्यक्रम
कक्षा–ग्यारवीं
विषयः हिन्दी
जम्मू कश्मीर बोर्ड

पूर्णांकः 100 **समयः 3 घंटे**

(भाग क)

1. काव्य **अंकः 20**

साखी–कबीरदास मानसर पाठ्य पुस्तक में संकलित

सूरदास–बाललीला मानसर पाठ्य पुस्तक में संकलित

बिहारीलाल–नीति के दोहे (केवल छः दोहे)

देव–हंसी की चोट, सपना और दरबार

नोटः काव्यांशों की व्याख्या

कवि परिचय

पाठ्य पुस्तक के प्रश्नोत्तर

परीक्षापयोगी महत्वपूर्ण प्रश्नोत्तर

(भाग ख)

2. हिन्दी साहित्य का इतिहास **अंकः 20**

1. वीरगाथा काल
   (परिस्थितियाँ, विशेषताएँ, युगीन कवि)
2. भक्तिकाल
   (भक्तिकाल का वर्गीकरण, परिस्थितियाँ, विशेषताएँ तथा युगीन कवि)
3. कहानी
   (अर्थ, परिभाषा, तत्व, प्रकार)

(भाग ग)

निबन्ध

अंक: 20

चार–चरित्र : बालकृष्ण भट्ट
सच्ची वीरता: सरदार पूर्ण सिंह
मित्रता: आचार्य रामचन्द्र शुक्ल
टार्च बेचने वाला: हरिशंकर परसाई

नोट: निबन्धों का सार
लेखक परिचय (संक्षेप में)
पाठ्य पुस्तक के प्रश्नोत्तर
परीक्षोपयोगी महत्वपूर्ण प्रश्नोत्तर

(भाग घ)

कहानियाँ

अंक: 20

ईदगाह: मुंशी प्रेमचन्द
अभाव: विष्णु प्रभाकर
उसकी माँ: पांडेय बेचन शर्मा 'उग्र'
वापसी: उषा प्रियंवदा

नोट: कहानियों का सार
कहानिकार का परिचय (संक्षेप में)
पाठ्य पुस्तक के प्रश्नोत्तर
परीक्षोपयोगी महत्वपूर्ण प्रश्नोत्तर

(भाग ड)

व्याकरण अंक: 20

निबन्धः सामाजिक, उत्सव, वैज्ञानिक, खेले, राष्ट्रीय आदि

पत्रलेखनः निजी–पत्र, आवेदन पत्र, व्यवसायिक–पत्र

अलंकारः अनुप्रास, उपमा, अतिश्योक्ति तथा उत्प्रेक्षा के लक्षण और उदाहरण

डोगरी (DOGRI)

Maximum Marks: 100 **Time: 3 hours**

(ख)	व्याकरण			
	पद्य भाग : (क)	कविता	:	नमां जुग, सरगम।
		गजलां	:	रामनाथ शास्त्री ते वेदपालदीप।
		गीत	:	यश शर्मा।
		चमुखे	:	मोहन लाल सपोलिया।
	गद्य भाग : (ख)	कहानियां	:	पागल, कफर्यू।
		निबंध	:	शेरसिंह बनाम पंजूराम, क्षमा करना धन्यवाद।
		एकांकी	:	नीलकंठ।
	(ग) व्याकरण		:	गद्य ते पद्य भाग चा व्याकरण सबन्धी सुआल।

(ख) व्याकरण :

पद्य भाग : (क)	कविता	:	भाव–छुआले, इक दिन गि'ल्लुए जदूं मठोना
	गजलां	:	वेदपाल 'दीप ते शिव राम 'दीप'।
	गीत	:	यश शर्मा।
	चमुखे	:	मोहन लाल सपोलियां।
गद्य भाग : (ख)	कहानियां	:	संगलां, अजब सा ओह् आदमी।
	निबंध	:	म्हिसदियां लीकरां, जीवन केह् ऐ ?
	एकांकी	:	नीलकंठ।

(ग) व्याकरण : गद्य ते पद्य भाग चा व्याकरण सरबन्धी सुआल।

Book Prescribed

A Textbook of Dogri 'Rishman' for Class XI published by J&K State BOSE

संस्कृत (SANSKRIT)

Marks: 100

Time: 3 Hrs.

(क)	गद्य भाग तथा		रङ्गिणी : एन० सी० ई० आर टी द्वारा संकलित एवं संपादित पाठ उदयनस्य पत्नी प्रीति
(ख)	पद्य भाग (काव्य)		कालिदास कृत कुमारसंभवम् (केवल पांचवां सर्ग) पहले श्लोक से 45 वें श्लोक तक
(ग)	व्याकरण	1.	स्वर संधि भेद सहित
		2.	स्वरान्त शब्दों में से अकारान्त पुल्लिंग, आकारान्त स्त्रीलिंग उकारांत पु० शब्द
		3.	भ्वादि गण में से भू, गम्, पठ्, स्मृ, और दृश धातु (लट्, लोट्, लृट् तथा विधिलिंग लकारों में)
		4.	समास – कर्मधारय तथा तत्पुरुष
		5.	प्रत्यय – शतृ, शानच्
			व्याकरण के लिये निर्धारित पुस्तक :– संस्कृत व्याकरण प्रदीप या सुबोध संस्कृत व्याकरण या संस्कृत व्याकरण प्रबोध
(घ)	साहित्य	1.	रामायण का महत्त्व
		2.	कालिदास कवि के रूप में

निर्धारित पुस्तक :

संस्कृत साहित्य की रूपरेखा

लेखक :– चन्द्रशेखर पाण्डेय व व्यास ।

(क)	गद्य एवं पद्य भाग	रङ्गिणी : एन० सी० ई० आर टी
	पाठ	(1) शकुन्तलायाः पतिगृहगमनम्
		(2) सीता परित्राणम्
(ख)	पद्य भाग (काव्य)	कालिदात कृत कुमारसंभवम्
		पांचवा सर्ग 46वें श्लोक से लेकर अन्त तक
(ग)	व्याकरण	1. सर्वनाम शब्द :– युष्मद्, तत्, अस्मद्, किम्, इदम्
		2. धातुः– सी, चल्, पा, रक्ष, हस
		3. प्रत्ययः– क्त, क्तवतु, तव्यत्
		4. समासः– द्वन्द्व, द्विगु
		अनुवादः– सामान्य वाक्य
(घ)	साहित्य	1. महाभारत का सामान्य परिचय एवं काल निर्धारण
		2. नाटकों का उद्भव और विकास
		3. भासः नाटककार के रूप में

འཛིན་གྲྭ་བཅུ་གཅིག་པའི་སློབ་ཚན།

BHOTI

Marks 100

སློབ་དེབ་གཞོན་ནུའི་མགྲུལ་རྒྱན་ཁག་དང་པོ
(J&K Board of School Education)

ཁག་དང་པོ ༧༥

༡	ཚིག་ལྷུག	(Prose Section)	ཨང་ 40
༢	ཚིགས་བཅད	(Poetry Section)	ཨང་ 20
༣	བརྡ་སྤྲོད་སོགས	(Grammar Section)	ཨང་ 40

༡ ཚིག་ལྷུག (Prose Section) **Marks 20**

རང་གི་སློབ་དེབ་ནང་གི་གཤམ་གསལ་སློབ་ཚན།

དགེ་སློང་ཀླུ་སྒྲུབ་སོགས།

༢ ཚེ་སྲོག་གཅོད་པ་དང་ཞེས་སོགས།

༣ སེམས་ཅན་རང་རང་གི་ཁམས་དང་བསམ་པའི་དབང་གི་ཞེས་སོགས།

༢ ཚིགས་བཅད (Poetry Section) **Marks 10**

རང་གི་སློབ་དེབ་ནང་ནས་གཤམ་གསལ་ཚིགས་སུ་བཅད་པ

༡ ཡོན་ཏན་རང་བཞིན་དགེ་འོས་བདག་གིས་མི།

༢ གང་ལ་ཕ་དང་མ་དག་མཆོད་པ་ཡི།

༣ སེམས་ནི་ཆུ་དང་ས་དང་དོ་བ་ལ།

༤ ཁྱེད་ཀྱིས་བྲམ་ཟེ་དགེ་སློང་ལྟ་དང་མི།

༥ བྱམས་དང་སྙིང་རྗེ་དང་དགའ་བ་དང་།

༣ བད་སྤྲོད (Grammar Section) **Marks 20**

༡ བཤད་པ །

༢ ཡི་གེ། སྙན་ཀུ།

༣ བརྗོད་པ་དང་པོ་བཟོ་ཆུ།

༤ སྙོང་ཆ་འགེངས་ཆུ།

༥ གཏམ་དཔེ།

༦ རང་བཞིན་བརྗོད་པ་དཔེ་ཆུན།

༧ འགལ་ཟླ།

༨ གཟོབ་འཇུག་ཆུ།

༩ མངོན་བརྗོད།

༡༠ ཡང་ཡང་རེ་བྱི་སྐ་ས་བད་སྐད་ལ་བསྒྱུར་ཆུ།

ཤེས་ཚད་བརྟག་པ (Scheme of Assessment)

Note:-
ཤེས་ཚད་བརྟག་པ་ནི་སློབ་གྲྭ་རང་གིས་སྐབས་སྐབས་སུ་ཡོན་ཏན་ལས་ཁུངས་ཀྱིས་བཞག་པའི་འཆར་གཞི་ནང་བཞིན་མཛད་རྒྱུ།

༡	ཚིག་ལྷུག (Prose Section)	Marks 20
༡	སློབ་ཚན་ནང་གི་ཚིག་ལྷུག་གི་བཅད་མཚམས་ཁག་བཞི་ཡི་ནང་ནས་གཉིས་སློབ་ཚན་དང་རྩོམ་པ་པོའ་མིང་གི་འབྲེལ་དང་བཅས་པ། འདུ། ཏིཎྜི། ཡང་ན་ཨང་རེ་ཟི་ནང་དུ་བསྒྲུར་རྒྱུ།	ཨང་ 07
༢	སློབ་ཚན་ཀུན་ལེགས་པར་ཤེད་ཡོད་མིན་དང་བརྡ་ཕྲོད་མིན་དང་། བརྗོད་བྱ་བརྟག་ཕྱིར་གྱི་དྲི་བ་ལྔའི་ནང་ནས་གསུམ་ལ་ལན་འབྲི་རྒྱུ།	ཨང་ 04
༣	ཚིག་ལྷུག་རྩོམ་པ་པོའི་སྐོར་མདོར་སྡུས་གཉིས་ཀྱི་ནང་ནས་གཅིག་གི་སྐོར་རང་གི་སློབ་ཚན་ནང་ཡོད་པ་ལྟར་འབྲི་རྒྱུ།	ཨང་ 03
༤	ཚིག་ལྷུག་གི་བཅད་མཚམས་ཁག་གཉིས་ཀྱི་ནང་ནས་གཅིག་གི་གསལ་བཤད་འབྲི་རྒྱུ།	ཨང་ 03
༥	གཤམ་གསལ་གྱི་ཚིག་ལྷུག་ཁག་ལེགས་པར་བཀྲགས་ནས་འོག་གི་དྲི་བ་བཞི་ལ་ལན་འབྲི་རྒྱུ།	ཨང་ 03

३	ཚིགས་བཅད་ (Poetry Section)	Marks 10
१	གཤམ་གསལ་ཚིགས་བཅད་བཞི་ཡི་ནང་ནས་འགྲེལ་དང་བཅས་པ་གཏིས་ཏིན་དེ་ ཞུར་དུ་དང་ཡང་རེ་ཟེ་གང་རྩང་ནང་བཞུར་རྒྱ །	ཚང 4
२	ཚིགས་བཅད་གཏིས་ཀྱི་ནང་ནས་གཅིག་གི་ཚིག་འགྲེལ་སྦྱིང་དོན་བྱིས །	ཚང 2
३	གཤམ་གསལ་ཚིགས་བཅད་རྩོམ་རྩལ་མོའདྲི་བ་གཏིས་ཀྱི་ནང་ནས་གཅིག་གི་ དོས་འཛིན་བྱ་རྒྱ །	ཚང 2
४	སྒེན་ངག་ཚགན་གཏིས་ཀྱི་ནང་ནས་གཅིག་གི་ལོ་རྒྱུས་མདོར་བསྡུས་འགྲེལ་རྒྱ །	ཚང 2
३	བད་སྤྱིད (Grammar Section)	Marks 20
१	གཤམ་གསལ་རྩོམ་གཞི་འཞིའི་ནང་ནས་གཅིག་གི་སྐོར་ཚིག་300་ལས་མི་ཉུང་ བ་འགྲེལ་རྒྱ །	ཚང 7
२	ཡི་གེ ཡང་ན སྒེན་ཀུ གསུམ་ཀྱི་ནང་ནས་གཅིག་འགྲེལ་རྒྱ །	ཚང 4
३	གཤམ་གསལ་བརྗོད་པ་ལྟ་ཡི་ནང་ནས་གསུམ་དག་པོ་འགྲེལ་རྒྱ །	ཚང 2
४	གཤམ་གསལ་སྐོང་ཚ་བཞི་པོ་འགེངས་ས་རྒྱ །	ཚང 2
५	གཤམ་གསལ་གཏམ་དཔེ་ལྟ་ཡི་ནང་ནས་གསུམ་ལ་བརྗོད་པ་འགྲེལ་རྒྱ །	ཚང 2
६	གཤམ་གསལ་བྱ་བ་བཅུད་ཀྱི་ནང་ནས་བཞི་འཁྲིའ་བདས་མ་ཁོངས་པ་དང་དུ་ཁ་ བའི་ཚིག་སྒྲུབ་སྐང་ས་འགྲེལ་རྒྱ །	ཚང 1
७	གཤམ་གསལ་ཚིག་བཅུད་ཀྱི་ནང་ནས་བཞི་ལ་བཀའ་རྒྱ་འགྲེལ་རྒྱ	ཚང 1
८	གཤམ་གསལ་བརྗོད་པ་བཞི་གཅིག་ཏུ་འཛུག་ནས་དོན་ཆ་ཚང་སྒྲིན་པ་འགྲེལ་རྒྱ །	ཚང 1

༡ ཚིག་ལྷུག (Prose Section) Marks 20

རང་གི་སློབ་དེབ་ནང་གི་གཤམ་གསལ་ཚིག་ལྷུག་ཀུན་ཡོད།

༡ སྙིང་ཐག་པ་ནས་ཆོས་སྒྲུབ་པའི་ཚེ་ཐོག་མར་དགེ་བའི་བཤེས་གཉེན་བསྟེན་པར་བྱ་ཞེས་སོགས།

༢ མཐོ་རེས་ཀྱི་གནས་རིན་པོ་ཆེའི་རང་བཞིན་ཕྱི་ས་ཞེས་སོགས།

༣ ཡི་དྭགས་ཁ་ཅིག་གི་ལུས་ནི་ཞེས་སོགས།

༤ བསམ་གཏན་མེད་པར་ཡང་ནི་བདག་མེད་པའི་དོན་ལ་ཞེས་སོགས།

༥ ད་ནི་གཉིས་པ་ཐུན་མོང་བའི་ཆུན་ཕྱི་དབྱེ་བཞིབ་མོར་བཤད་པ་ལ་གཉིས་ཏེ་ཞེས་སོགས།

༢ ཚིགས་བཅད (Poetry Section) Marks 10

རང་གི་སློབ་དེབ་ནང་གི་གཤམ་གསལ་ཚིགས་སུ་བཅད་པ་ཀུན་ཡོད།

༡ དད་དང་བརྩོན་འགྲུས་དག་དང་དྲན་པ་དང་།

༢ ཐར་པ་བདག་ལ་རབ་[illegible]་ལ་ནི།

༣ བདེ་བ་ཀུན་ཀྱི་ནང་ནས་སྲད་ཐར་པའོ།

༤ ཉེན་ཅིང་འབྲེལ་བར་འབྱུང་འདི་ཆུལ་བ་ཡི།

༥ ཡང་དག་ལྟ་དང་འཚོ་དང་རྩོལ་བ་དང་།

༣ བད་སྒྲོད (Grammar Section) Marks 20

༡ བཤད་པ །

༢ ཡི་གེ་ སྙན་ཀུ །

༣ བརྗོད་པ་དག་པོ་བཟོ་རྒྱུ །

༤ སྟོང་ཆ་ཀུན་འགེང་མ་རྒྱུ །

༥ གཏམ་དཔེ །

༦ གཟུགས་ཅན་གྱི་རྒྱན་དང་ གསལ་བྱེད་ཀྱི་རྒྱན །

༧ ཁྲོག་ཟླ །

༨ གཟོབ་འཇུག་ནས་འཕྲི་རྒྱུ །

༩ མངོན་བརྗོད །

༡༠ གཤམ་གསལ་ཨང་རེ་ཟིའི་ཆེག་ལྷུག་གཉིས་ཀྱི་ནང་ནས་གཅིག་བོད་སྐད་དུ་བསྒྱུར་རྒྱུ །

ཤེས་ཆད་བརྟག་པ (Scheme of Assessment)

སློབ་གྲྭ་རང་གིས་སྐབས་སྐབས་སུ་ཇམ་ཀཱཤྨིར་བོར་ཊ་ཨཡ་སི་ཀུལ་ཨེ་ཇུ་ཀེ་ཤན་གྱིས་འཆར་གཞི།
གཞག་ཡོད་པ་ལྟར་སྐབས་སྐབས་སུ་ཤེས་ཆད་བརྟག་སྒྱུ

༡ ཚིག་ལྷུག (Prose Section) Marks 20

༡ རང་གི་སློབ་ཆན་ནང་ཡོད་པའི་ཚིག་ལྷུག་གི་བཅད་མཆམས་ཁག་བཞིའི་ནང་ནས་གཉིས་ཀྱི་འབྲེལ་དང་བཅས་བོ་སྐད་ནས་ཏིཎྜི། འཕྲུ། ཡང་ན་ཨང་རེ་ཟིའི་ནང་དུ་བསྒྱུར་རྒྱུ། ཨང་ 07

༢ རང་གི་སློབ་ཆན་ཀུན་ལེགས་པར་ཤེས་ཡོད་མིན་བརྟག་ཕྱིར་དྲི་བ་ལྔའི་ནང་ནས་གསུམ་ལ་ལན་འབྲི་རྒྱུ། ཨང་ 04

༣ རང་གི་སློབ་ཆན་ནང་ཡོད་པའི་ཚིག་ལྷུག་རྩོམ་པ་པོ་གཉིས་ཀྱི་སྐོར་མདོར་བསྡུས་ཤིག་འབྲི་རྒྱུ། ཨང 03

༤ ཚིག་ལྷུག་ཁག་གཉིས་ཀྱི་ནང་ནས་གཅིག་གི་འབྲེལ་དང་བཅས་གསལ་བཤད་འབྲི་རྒྱུ། ཨང 03

ཚིག་ལྷུག་ཁག་གཅིག་བཞག་རྒྱུ། དེ་བཀླགས་ཏེ་དྲི་བ་བཞི་ལ་ལན་འབྲི་རྒྱུ། ཨང 03

༢ ཚིགས་བཅད (Poetry Section) Marks 10

༡ ཚིགས་སུ་བཅད་པ་བཞིའི་ནང་ནས་གཉིས་ཀྱི་འབྲེལ་དང་བཅས་བོད་སྐད་ནས་ཏིཎྜི ཨུཏྲུ། ཡང་ན་ཨང་རེ་ཟིའི་ནང་དུ་འབྲི་རྒྱུ། ཨང་ 04

༢ ཚིགས་བཅད་གཉིས་ཀྱི་ནང་ནས་གཅིག་གི་འབྲེལ་དང་བཅས་པའི་ཚིག་འགྲེལ་ལམ སྙིང་དོན་བྲིས། ཨང་ 02

༣ དཔེའི་རྒྱན་བཞིའི་ནང་ནས་གཉིས་ཐོག་རང་རྩོམ་འབྲི་རྒྱུ། ཨ 02

རང་གི་སློབ་དེབ་ནང་ཡོད་པའི་ཚིགས་བཅད་རྩོམ་པ་པོ་གཉིས་ཀྱི་ནང་ནས་གཅིག་ཅི་ཡོ་རྒྱུས་མདོར་བསྡུས་ཤིག་འབྲི་རྒྱུ། ཨང་ 02

བད་སྒྲོང (Grammar etc.) Makrs 20

༡	གཤམ་གསལ་རྩོམ་གཞི་བཞིའི་ནང་ནས་གཅིག་གི་སྐོར་ཆིག་ ༡༠༠ ལས་མི་ཉུང་བ་འབྲི་རྒྱུ།	ཨང་ 07
༢	ཡི་གྲེ་ ཡང་ན་ སྙན་ཀུ་ ཡི་ནང་ནས་གཅིག་འབྲི་རྒྱུ།	ཨང་ 04
༣	གཤམ་གསལ་བརྗོད་པ་ལྔའི་ནང་ནས་གསུམ་དག་པོ་འབྲི་རྒྱུ།	ཨང 02
༤	སྐོང་ཆ་བྱུགས་འགེང་རྒྱུ།	ཨང 02
༥	ཟད་མ་དཔེ་ འི་ནང་ནས་གསུམ་གྱི་དོན་དང་བརྗོད་པ་འབྲི་རྒྱུ།	ཨང 02
༦	བྱ་ཆིག་བརྒྱད་ཀྱི་ནང་ནས་བཞིའི་འདས་ མའོངས་དང་ དལ་བའི་ཆིགས་སྒྲུབ་བཟོ་རྒྱུ།	ཨང་ 01
༧	ཆིག་བརྒྱད་ཀྱི་ནང་ནས་བཞིའི་ལྡོག་ཟླ་འབྲི་རྒྱུ།	ཨང་ 01
༨	བརྗོད་པ་བཞིའི་སྐོར་ཆ་ཚང་སྐོན་པ་གཟོབ་འཇུག་སྟེ་འབྲི་རྒྱུ།	ཨང་ 01

ਜਮਾਤ ਯਾਰਵੀ (ਹਾਇਰ ਸਕੈਂਡਰੀ ਪਾਰਟ ਫਸਟ)

ਸਲੈਬਸ ਪੰਜਾਬੀ (PUNJABI)

Maximum Marks: 100

Time: 3 hours

(1) ਕਾਵਿ ਪ੍ਰਵਾਹ ਸੰਪਾਦਕ ਦੀਵਾਨ ਸਿੰਘ (ਕਵਿਤਾ)

(ੳ) ਸ਼ੇਖ ਫ਼ਰੀਦ

(ਅ) ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ

(ੲ) ਦਮੋਦਰ

(ਸ) ਪੀਲੂ

(ਹ) ਭਾਈ ਗੁਰਦਾਸ ਜੀ

(ਕ) ਗੁਰੂ ਗੋਬਿਦ ਸਿੰਘ ਜੀ

(2) ਦਸ ਝਰੋਖੇ ਨਵਤੇਜ ਸਿੰਘ ਨਿੱਕੀ ਕਹਾਣੀ

(ੳ) ਪ੍ਰੀਤਾਂ ਦੇ ਪਹਿਰੇਦਾਰ ਕਹਾਣੀ ਦਾ ਸਾਰ

ਅ) ਤਾਸ਼ ਦੀ ਆਦਤ ਪਾਤਰ ਚਿਤ੍ਰਣ

(ਏ) ਬਾਰੀ ਦੀ ਧੀ

(ਸ) ਪ੍ਰੇਮੀ ਦੇ ਨਿਆਣੇ

(ਹ) ਪਠਾਣ ਦੀ ਧੀ

(3) ਇਕਾਂਗੀ ਪੰਜ ਚੋਣਵੇਂ ਇਕਾਂਗੀ ਸੁਰਜੀਤ ਸਿੰਘ ਸੇਠੀ

(ੳ) ਮਨ ਦੀਆਂ ਮਨ ਵਿਚ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ

(ਅ) ਇਕ ਐਤਵਾਰ ਪਾਤਰ ਚਿਤ੍ਰਣ

(ਏ) ਰਾਤ ਕਟ ਗਈ

ਵਿਆਕਰਣ

(ੳ) ਲੇਖ ਰਚਨਾ

(ਅ) ਚਿੱਠੀ ਪੱਤਰ

(ਏ) ਅਖਾਨ ਤੇ ਮੁਹਾਵਰੇ

4. ਕਾਵਿ ਪ੍ਰਵਾਰ: ਕਵਿਤਾ: ਦੀਵਾਨ ਸਿੰਘ

(ੳ) ਨਜਾਬਤ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ

(ਅ) ਵਾਰਸ ਸ਼ਾਹ ਕਵਿਤਾ ਦਾ ਸਾਰ

(ਇ) ਹਾਸ਼ਮ

(ਸ) ਸ਼ਾਸ ਮੁਹਮੰਦ

(ਹ) ਫ਼ਸਲ ਸ਼ਾਹ

(ਕ) ਮੁਹਮੰਦ ਬੂਟਾ ਗੁਜਰਾਂਤੀ

5. ਦਸ ਝਰੋਖਤ: ਨਵਤੇਜ ਸਿੰਘ: ਨਿੱਕੀ ਕਹਾਣੀ

(ੳ) ਕਰਾਮਾਤ ਕਹਾਣੀ ਦਾ ਸਾਰ

(ਅ) ਸਵੇਰ ਹੋਣ ਪਾਤਰ ਚਿਤ੍ਰਣ

(ਇ) ਤੂਤੀ ਦੀ ਪੰਛ

(ਸ) ਦੇਸ਼ ਵਾਪਸੀ

(ਹ) ਗੁਲਬਾਨੋ

6. ਪੰਜ ਚੌਣਵੇਂ ਇਕਾਂਗੀ

(ੳ) ਦਿਲ ਦੀ ਬੁਕੱਲ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ

(ਅ) ਅਪਮਾਨ ਪਾਤਰ ਚਿਤ੍ਰਣ

ਅਿਵਾਕਰਣ

(ੳ) ਲੇਖ ਰਚਨਾ

(ਅ) ਸ਼ਬਦ ਰਚਨਾ ਤੇ ਸ਼ਬਦਾਵਲੀ

(ਇਕ) ਵਿਰੋਧਅਰਥਕ ਸ਼ਬਦ

(ਦੂਜਾ) ਅਗੇਤਰ ਤੇ ਪਿਛੇਤਰ

(ਤੀਜਾਂ) ਬਹੁਅਰਥਕ ਸ਼ਬਦ

(ਚੌਥਾ) ਭਿੰਨਅਰਥਕ ਸ਼ਬਦ

KASHMIRI

مضمؤن: کأشُر　　جماتھ: کُہم　　نمبرات : ۱۰۰

* نثری سبقن ہندِ حوالہٕ ین ۲۵ ہن نمبرن ہندی سوال پزژھنہٕ۔
* کِتابہِ منز شأمِل شأعری ہندِ حوالہٕ ین ۲۵ ہن نمبرن ہندی سوال پزژھنہٕ۔
* بچن ہنز تحریری تہٕ تخلیقی صلأحیٚو پرکھاونہٕ خأطرین ۲۵ ہن نمبرن ہندی سوال پزژھنہٕ۔
* گزامرس مُتعلِق ین ۲۵ ہن نمبرن ہندی سوال پزژھنہٕ۔

****

حصہ (ا) نثر

سوال نمبر۱: سبق تہٕ لِکھأری ہندِ حوالہٕ دِنہٕ آمتو دویو نثری اقتباسو منز اکچ تشریح ---------- ۵ نمبر

سوال نمبر۲: کُنہِ سبقہٕ منز کڈنہٕ آمتہٕ أکِس اقتباسس مُتعلِق پزژھنہٕ آمتین تزین سوالن ہندی جواب ---- ۲+۲+۲=۶ نمبر

سوال نمبر۳: کُنہِ سبقُک خُلاصہٕ، تنقیدی سام یا کأنسہِ کردارس مُتعلِق نوٹ (زیچھر ۱۰۰ پیٹھہٕ ۱۲۰ لفظن تام) ---- ۵ نمبر

سوال نمبر۴: سبقن پتہٕ کنہِ دِنہٕ آمتو ژورو مشقی سوالو منز دون ہُند جواب (زیچھر ۵۰ پیٹھہٕ ۶۰ لفظن تام) --- ۲+۲=۴ نمبر

سوال نمبر۵: نِصابس منز شأمِل تزیو نثرنگارو منز أکِس پیٹھ نوٹ ---------- ۵ نمبر

حصہ (ب) شأعری

۶: کِتابہِ منز کڈنہٕ آمتو ژورو شعرو منز دون ہنز تشریح ---------- ۲+۲=۴ نمبر

۷: نِصابس منز شأمِل تزیو شأعرو منز أکِس پیٹھ نوٹ (یا) کُنہِ أکِس نثری صِنفہٕ پیٹھ نوٹ (زیچھر ۱۰۰ پیٹھہٕ ۱۲۰ لفظن تام)۔ ۴ نمبر

۸: کِتابہِ منز شأمِل منظوماتن ہندِس أخرس پیٹھ دِنہٕ آمتو شیو مشقی سوالو منز تزین ہندی جواب ---------- ۳+۳+۳=۹ نمبر

۹: أٹھن سبٹھیے موخصر سوالن ہندی جواب ---------- ۸ نمبر

حصہ (ج) تخلیقی تہٕ تحریری سوال

۱۰: تزیو عنوانو منز أکس پیٹھ مضمؤن (زیچھر ۱۰۰ پیٹھہٕ ۱۵۰ تام) ---------- ۱۰ نمبر

۱۱: چِٹھی یادرخاس ---------- ۸ نمبر

۱۲: اخبأری رپورٹ، میٹنگہٕ / تقریبہٕ ہنز کاروأیی، پوسٹر (اِشتہار) لیکھُن ---------- ۷ نمبر

حصہ (د) گزامر

۱۳: کُہمہِ جمأژ ہنز کتابہِ منز شأمِل پتہٕ کنہِ دِنہٕ آمژن مشقن ہند حوالہٕ گزامر۔ پندہو (۱۵) سوالو منز دہن سوالن ہندی جواب ---------- ۱۰ × ۲½=۲۵ نمبر

ARABIC

Term 1st = 35 marks

Unit 1 **Maximum Marks: 100**

1/1 الحروف الهجائية
2/2 مخرج الحروف
3/3 المفردات
4/4 الحروف الشمسية و القمرية
5/5 الحركات
6/6 التذكير و التأنيث
7/7 المفرد و التثنية و الجمع
8/1 تقسيم الكلمة إلى الاسم و الفعل و الحرف
9/2 تقسيم الاسم إلى النكرة و المعرفة
10/3 اسم العلم
11/4 اسم الضمير
12/5 اسم الإشارة
13/6 اسم الموصول

14/1 الماضي و تصريفه
15/2 المضارع و تصريفه
16/3 الامر و تصريفه
17/4 النهي و تصريفه
18/5 تقسيم الفعل إلى اللازم و المتعدي
19/6 تقسيم الفعل إلى المعروف و المجهول

20/1 الجملة الاسمية
21/2 الجملة الفعلية
22/3 المركب التوصيفي
23/4 المركب الإضافي
24/5 الأسماء الممنوعة من الصرف
25/1 الأعداد
26/2 اسماء الايام
27/3 شهور السنة
28/4 فصول السنة
29/5 الأيات القرآنية
30/6 الأحاديث النبوية

31/1 القران الكريم
32/2 المسجد
33/3 تلميذ أمين
34/4 التعاون
35/5 مدرستي
36/6 الأشعار

ARABIC

Theory: 100 Marks **Time: 3 Hrs.**

Part 1 Quran and Al-Hadith. (4x6=24)

1. Translation of Quranic verses of the Prescribed Text book into Urdu or English with internal choice. (6)
2. Translation of Al-Hadith into Urdu or English with internal choice. (6)
3. Explain with reference to the context in Urdu or English (based on Suras prescribed in Text Book) with internal choice. (6)
4. Writing a brief note on Al-Quran in Arabic Prescribed in the Text Book. (6)

Part 2 Prose Section. (4x6=24)

1. Translation of One Paragraph out of two into Urdu or English. (6)
2. Filling in the blanks with internal choice from prescribed Text Book. (6)
3. Explanation with reference to the context in Urdu or English based on passage extracted from the prescribed Text Book with internal choice. (6)
4. Difference of "SUN" and "MOON" letters based of different examples which are given in the prescribed Text Books. (6)

Part 3 Writing Skills (22)

1. Five multiple choice questions from Lesson No. 08 to 10 of the prescribed Text Book. (5)
2. Translation of six words out of Twelve from the prescribed Text Book. (6)
3. Six Simple Questions in Arabic Language to be asked. (6)
4. Identification of different Nouns and Verbs. (5)

Part 4 Questions on applied Grammar

Topics are given below. Marks: 30

الحركات - المذكر والمؤنث - المفرد والتثنية والجمع - اسم الإشارة - اسم الموصول - الفعل الماضي - الفعل المضارع فعل الأمر - فعل الذهي - الفعل اللازم - الفعل المتعدي - الفعل المجهول - الجملة الفعلية - الجملة الإسمية - المركب الوصفي المركب الإضافي - أسماء الممنوعة من الصرف - الأعداد -

Text Book Prescribed

Textbook of Arabic for Class 11th Published by J&K State Board of School Education

Maximum Marks: 100

Time: 3 hours

PERSIAN

زبان آموزی

درس ۱ تا ٦

بخش نثر

دارا و سارا ۱ تا ۸

بخش نظم

راهِ مدرسه

زبان آموزی

درس ۷ تا ۱۰

بخش نثر

تختهٔ سیاه

ماه و خورشید

بخش نظم

مهربانتر از مادر

ملکوبکان

کتابِ خوب

زبان آموزی

درس ۱۱ تا ۱٤

بخش نثر

ماه و سال

لاک پُشت و مرغابی

بخش نظم

صبح

درختکاری

PERSIAN

Theory: 100 Marks **Time: 3 Hrs.**

There shall be one theory paper of 100 marks of 3 hours duration that contains three following points.

1. Language portion of the prescribed text book. 40 Marks
2. Prose portion of the prescribed textbook. 30 Marks

۱- دارا و سارا ۱ تا ۸
۲- تخته سیاه
۳- ماه و خورشید
۴- ماه و سال
۵- لاک پشت و مرغابی ها
۶- پیغمبر و قرآن

3. Poetry portion of the prescribed textbook. 30 Marks
Selected Chapter

۱- راز مدرسه
۲- سفر بان تر از مادر
۳- ما کودکان
۴- کتاب خوب
۵- صبح
۶- درختکاری
۷- شیخ سعدی شیرازی (مناجات - همدردی)

Scheme of Assessment:-

Q.1. Translation of six persian sentences into English/Urdu out of eight sentences.

06 Marks

Q.2. Translation of six English/ Urdu sentences into persian out of eight sentences.

06 Marks

Q.3. Six questions of one marks each will be asked out of eight questions.

06 Marks

Q.4. Conjugation of persian verbs will respect to past and present and future tense with internal choice.

06 Marks

Q.5. Fill in the blanks with suitable persion words.

06 Marks

Q.6. To write the meaning and sentences of five persian words into persian out of eight.

05 Marks

Q.7. Arrangement of sentences.

05 Marks

Text Book Prescribed

Textbook of Persian for Class 11th Published by J&K State Board of School Education

۶۔ خاک ہند	پنڈت برج نرئن چکبستؔ	نظم
۷۔ رات اور ریل	اسرارالحق مجازؔ	نظم
۸۔ کلام شیخ العالمؒ	ترجمہ نشاط انصاریؔ	شلوکھ

شعری صنعات مثلاً تضاد، تجنیس، تشبیہ، استعارہ

تخلیقی کام ۲۵ نمبرات

مضمون نگاری، خطوط نگاری، اشتہار سازی، اخباری رپورٹ،

ادبی تاریخ اور قواعد ۲۵ نمبرات

اردو زبان کا آغاز، فورٹ ولیم کالج، انجمن پنجاب،

قواعد، افعال، مرکبات، صفات، حروف

نصاب برائے گیارہویں مضمون اردو

حصہ نثر نمبرات ۲۵

۱۔	حاتم کی سخاوت	میر امن دہلوی	داستان
۲۔	ایک کہانی	مرزا فرحت اللہ بیگ	کہانی
۳۔	دعوت	رشید احمد صدیقی	انشائیہ
۴۔	ایک یادگار وصیت	پنڈت جوہر لال نہرو	مضمون
۵۔	سلک روٹ	عبدالغنی شیخ لداخی	مضمون
۶۔	گدڑی کا لال نور خان	مولوی عبدالحق	خاکہ
۷۔	آخری قدم	ڈاکٹر ذاکر حسین	مضمون
۸۔	محلے کی ہولی	اطہر پرویز	ڈراما

حصہ شعر ۲۵ نمبرات

۱۔ ولی دکنی، خواجہ میر درد، علامہ اقبال، شاد عظیم آبادی، جگر مرادآبادی، حکیم منظور کی دو دو غزلیں

۲۔	داستان تباہ ہونے کی شہزادے کے غم میں (سحر البیان)	میر حسن	مثنوی
۳۔	بنجارا نامہ	نظیر اکبر آبادی	نظم
۴۔	فرضی لطیفہ	اکبر آلہ آبادی	نظم
۵۔	خودستائی	مولانا الطاف حسین حالی	نظم

Public Administration

Maximum marks: 100 Time : 3Hrs

Introduction of public Administration

Unit : I Introduction

Meaning, scope and significance of Public Administration; Dichotomy of Politics and public Administration, Evolution of Public Administration, Public Administration management in NEW PUBLIC ADMINISTRATION.

Unit : II Approaches

Approaches: Classical approach, Human Relation approach and Ecological approach.

Unit : III Classical Thought

Management Thought: Henri Fayol - F.W Taylor, Classical Theory - Luther Gulick, Bureaucracy - Max Weber

Unit :1V Human Relations and behaviourial thought

Human Relation school Elton Mayo;Decision making-Herbert Simon, Theory X and Y : Mcgregor, Hierarchy of needs : Abraham maslow

Unit : V Principles

Principle-1: Division of work and coordination, Principle-ii: Hierarchy, Unity of command and span of control, centralization and decentralization, Delegation, Line and Staff.

Unit : VI Concepts

Administrative planning, Leadership, Supervision, Communication, Public Relation

Unit : VII Public policy

Models of policy making, public policy formulation, Evaluation and review, limitations of evaluation, Role of Media

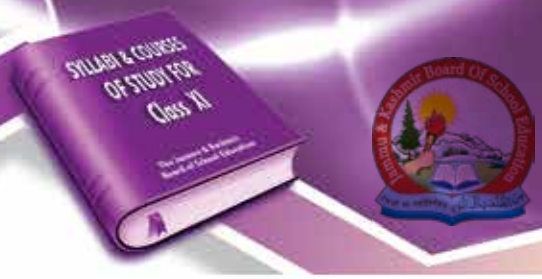
Unit : VIII Financial administration

Financial Administration-Meaning, purpose and significance; Budget - types of Budget

Unit : IX Accountability and citizen administration

Concepts of accountability and control, Legislative, Executive, and judicial control over administration, citizen and administration, citizen charter/public service gurantte Act 2011. Right to Information Act in India

Unit : X Advancement



Suggested Readings

Anderson J.E., (2006) Public Policy-Making: An introduction, Boston, Houghton Arndt Christiane and Charles Oman (2006), Uses and Abuses of Governance Indicators, OECD, Paris.

Avasthi & Maheshwari (2012), Public Administration, Lakshminarayan Agarwal, Agra

Bergerson, Peter J. (ed.), (1991), Teaching Public Policy: Theory, Research and Practice,- Westport, RI: Greenwood Press

Bhattacharya, Mohit (2013), New Horizons of Public Administration, Jawahar Publishers, New Delhi.

Birkland Thomas A., (2005), An Introduction to The Policy Process: Theories, Concepts, And Models of Public Policy Making, Armonk; M.E. Sharpe

Donald Menzel and Harvey White (eds) (2011). The State of Public Administration: issues, Challenges and Opportunities, New York, M. E. Sharpe.

Dye Thomas (2008), understanding Public Policy, Singapore, Pearson Education

Henry, Nicholas (2006), Public Administration and Public Affairs, Prentice Hall of India, New Delhi.

Jan-Erik Lane,(2000) New Public Management: An Introduction, Routledge, London.

O'Leary, Rosemary etal. (2010), The Future of Public Administration around the World: The Minnowbrook Perspective, George Town university Press, DC

Ravindra Prasad, D. Prasad, VS Prasad, P. Satyanarayana, and Y. Pardhasaradhi, (eds) (2013), Administrative Thinkers, Sterling, New Delhi.

UN, Department of Economic and Social Affairs, Development Administration: Current Approaches and Trends in Public Administration for Development. New York, UN, 1975.

Scheme of Assessment for Public Administrations

HINDI

प्रश्नपत्र का प्रश्नानुसार विश्लेषण एवं प्रारूप

Revised Edition

हिन्दी पाठ्यक्रम (ग्यारहवी) कुल अंक – 100 समयावधि :– 03 घंटे

क्र. सं	प्रश्नों के प्रारूप	दक्षता परीक्षण/अधिगम परिणाम	1 अंक	2 अंक	3 अंक	4 अंक	5 अंक	6 अंक	7 अंक	8 अंक	कुल अंक
1.	अपठित बोध गद्य (10) पद्य (10) नोटः–	ज्ञान विषयक बोध, अर्थ ग्रहण विश्लेषण, शब्द ज्ञान, मौलिकता, सृजनात्मकता आदि (पद्य मात्र खड़ी बोली हिन्दी में लिखित कविताओं से हो)	 2 6	 4 –	 – –	 – –	 – –	 – –	 – –	 – –	 10 6
2.	व्याकरण एवं रचनात्मक लेखन नोट–	समृद्ध शब्दावली, वर्तनी, भाषा प्रवाह, शैली, अभिव्यक्ति की सृजनात्मकता, तार्किकता आदि प्रतिवेदन, वर्गीकृत विज्ञापन, पत्रलेखन (औपचारिकता में से एक दीर्घ उत्तरापेक्षी प्रश्न शतप्रतिशत विकल्प सहित पूछा जाएगा)	–	4	1	1	1	–	–	–	20
3.	हिन्दी साहित्य का इतिहास	आदिकाल, भक्तिकाल एवं रीतिकाल	4	–	1	–	–	–	1	–	14
4.	पद्य भाग गद्य भाग	भाव विचार, कल्पना, शैली, अर्थ ग्रहण विश्लेषण कार्य कारण सम्बन्ध, काव्य परम्पराओं का मूल्यांकन, संस्कृति, जीवन मूल्य मौलिकता, सृजनात्मकता आदि।	4 4	– –	3 3	– –	01 01	– –	01 01	– –	25 25

प्रश्नपत्र का प्रश्नानुसार विश्लेषण एवं प्रारूप

हिन्दी पाठ्यक्रम (ग्यारहवीं) कुल अंक – 100 समयावधि :– 03 घंटे

क्र. स	प्रश्नों का प्रारूप/दक्षता परीक्षण/अधिगम परिणाम	अंक
1)	अपठित बोध	
गद्य	ज्ञान विषयक बोध, अर्थ ग्रहण	गद्य – 10
	विश्लेषण, शब्द ज्ञान, मौलिकता	(4x2=8)
		(2x1=2)
पद्य	सृजनात्मकता आदि	पद्य – 06
		(1x6=6)

नोट :– (पद्य मात्र खड़ी बोली हिन्दी में लिखित कविताओं से)

व्याकरण एवं	समृद्ध शब्दावली, वर्तनी, भाषा प्रवाह	
रचनात्मक लेखन	शैली, अभिव्यक्ति की मौलिकता,	(20)
	सृजनात्मकता, संवाद, तार्किकता आदि।	

प्रश्न पत्र का प्रारूपः–

शब्द भण्डार –	तत्सम, तद्भव, देशज, विदेशज शब्द	(1x4=4)
शब्द भेद –	पर्यायवाची, विलोम, अनेकार्थी, अनेक शब्दों के लिए एक शब्द	(4x2=8)
मुहावरे एवं लोकोक्तियाँ		(1x3=3)
प्रतिवेदन, वर्गीकृत विज्ञापन, पत्रलेखन (औपचारिक)		(1x5=5)

नोटः–

प्रतिवेदन, वर्गीकृत विज्ञापन, पत्रलेखन (औपचारिक) में से एक दीर्घ उत्तरापेक्षी प्रश्न शत–प्रतिशत विकल्प सहित पूछा जाएगा

2) हिन्दी साहित्य का इतिहास

आदिकाल

(सिर्फ नामकरण और प्रवृत्तियाँ) इतिहासबोघ, साहित्य और समाज का सम्बन्ध, विश्लेषण

भक्तिकाल

(संत, सूफी, कृष्ण और राममार्गी शाखा की प्रवृत्तियाँ) आलोचनात्मक चिन्तन, साहित्यिक परम्पराओं का ज्ञान और मूल्यांकन आदि

रीतिकाल

(नामकरण और प्रवृत्तियाँ)

नोटः–

शत–प्रतिशत विकल्प सहित एक दीर्घ उत्तरापेक्षी प्रश्न पूछा जाएगा। (1x7=7)

शत–प्रतिशत विकल्प सहित एक लघु उत्तरापेक्षी प्रश्न पूछा जाएगा। (1x3=3)

चार विकल्प रहित वस्तुनिष्ठ प्रश्न पूछे जाएँगे। (1x4=4)

कुल अंक 14

3) पद्य भाग

भाव, विचार, कल्पना शैली, अर्थ–ग्रहण, विश्लेषण, कार्य कारण सम्बन्ध, काव्य परम्पराओं का मूल्यांकन, संस्कृति, जीवन मूल्य, मौलिकता, सृजनात्मकता आदि।

प्रश्न पत्र का प्रारुपः–

पद्य भाग (पाठ्यपुस्तक 'अनुगूँज में से) (25)

1. कबीरदास
2. मलिक मुहम्मद जायसी
3. तुलसीदास
4. सूरदास
5. मीराबाई
6. बिहारीलाल

इस इकाई में से प्रश्न पत्र का प्रारूप एवं अंक विभाजनः–

शत–प्रतिशत विकल्प सहित एक सप्रसंग व्याख्या पूछी जाएगी (1x5=5)

शत–प्रतिशत विकल्प सहित कवियों का साहित्यिक परिचय पूछा जाएगा। (1x7=7)

शत–प्रतिशत विकल्प सहित तीन लघु उत्तरापेक्षी प्रश्न पूछे जाएँगे। (3x3=9)

चार विकल्प रहित वस्तुनिष्ठ पूछे जाऐंगे। (1x4=4)

4) गद्य भाग (पाठ्यपुस्तक 'अनुगूंज में से) (25)

कहानियाँः–

1. एक टोकरी भर मिट्टी – माधव राव सप्रे
2. शतरंज के खिलाडी – मुंशी प्रेमचंद
3. परदा – यशपाल
4. वापसी – उषा प्रियंवदा
5. चुप चन्तारा रोना नहीं – डा. नीरजा माधव
6. कितिज – शकुन्त दीपमाला

निबंध/व्यंग्य

7. आचरण की सभ्यता – सरदार पूर्ण सिंह
8. इंस्पेक्टर मातादीन चाँद पर – हरिशंकर परसाई

इस इकाई में से प्रश्न पत्र का प्रारूप एवं अंक विभाजनः–

शत–प्रतिशंत विकल्प सहित एक सप्रसंग व्याख्या पूछी जाएगी। (1x5=5)

शत–प्रतिशत विकल्प सहित एक दीर्घ उत्तरपेक्षी प्रश्न पूछा जाएगा। (1x7=7)

शत–प्रतिशत विकल्प सहित तीन लघु उत्तरापेक्षी प्रश्न पूछे जाएँगे। (3x3=9)

चार विकल्प रहित वस्तुनिष्ठ प्रश्न पूछे जाएँगे (1x4=4)

नोटः–

मात्र पाठ्यक्रम में निर्धारित पाठों पर आधारित प्रश्न ही पूछे जाएँगे। इस इकाई में निर्धारित लेखकों के परिचय, अवदान आदि से सम्बन्धित दीर्घ, लघु और अति लघु उतरापेक्षी प्रश्न नहीं पूछे जाएँगे।

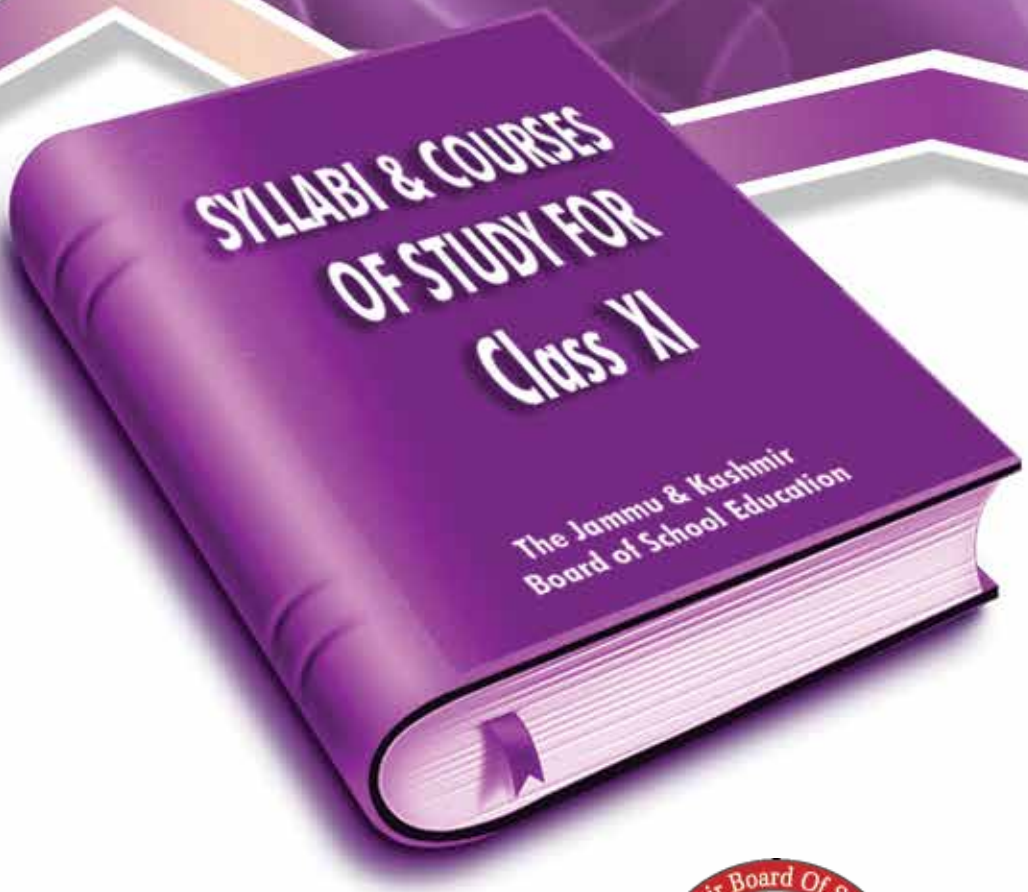
निबन्ध/व्यंग्य और कहानियों की तात्विक समीक्षा, सार, उद्देश्य, समस्या और प्रमुख चरित्रों से संबंधित प्रश्न पूछे जाएँगे।

निर्धारित पुस्तक – अनुगूँज

पाठ्यक्रमोपयोगी सहायक पुस्तकें:–

1. मानक हिन्दी व्याकरण
2. सुबोध हिन्दी व्याकरण
3. हिन्दी साहित्य का इतिहास – डॉ. नगेन्द्र
4. हिन्दी साहित्य : युग और प्रवृतियाँ – शिवकुमार शर्मा
5. हिन्दी साहित्य का संक्षिप्त इतिहास – डॉ मधु धवन

SYLLABI & COURSES
OF STUDY FOR
Class XI



Jammu and Kashmir Board of School Education
Srinagar Kashmir