

CLASS XII
1. GENERAL ENGLISH

Time: 3hrs

Theory: 50 marks
C.C.E.: 25 marks
Total: 75 marks

STRUCTURE OF QUESTION PAPER

Do all questions.

PART-- A (Prose lessons meant for intensive study) 14 Marks

1. Short answer questions. (one line answer) 4 out of 5 from 5 different lessons.
4 Marks
2. Long answer questions on theme, incident, content, character etc....50 to 60 words) (2 out of 4 from different lessons).
6 Marks
3. Seen passage for Comprehension. (Passage of 150 words followed by 3 single line Comprehension questions and one question on Vocabulary (meanings of 2 out of 3 given words in simple English).
1+1+1+1 = 4 Marks

PART - B (Poetry) 6 Marks

4. Central idea (1 out of 2).
2 Marks
5. Comprehension question on a given stanza (4 questions including a question on name of the poet/poem, Rhyme scheme/Simile/Metaphor/Personification/ Alliteration/ Imagery etc on selected stanza). (1 out of two given stanzas to be attempted)
4 Marks

PART- C (Lessons meant for extensive reading) 10 Marks

6. Short answer questions (one line answer) 4 out of 6 to be answered from 6 different lessons.
4 marks
7. Long answer type (100 - 120 words) question on Character/incident/theme etc (1 out of 2 to be answered from different lessons).
6 Marks

PART-- D (Grammar and Composition) 20 Marks

1. Grammar items:
 - a. Determiners
 - b. Use of Non-finites (Infinitives, Gerunds, Participles)
 - c. Transformation of Sentences
 - d. Voice
 - e. Narration

2+2+2+1+1=8 Marks
 2. Précis writing (passage of about 150 words) 5 Marks
 3. Letter writing (only official/business & to Editors/Applications for jobs) 5 Marks
 4. Explaining Newspaper Headlines (15-20 words)/ E-mail writing 2 Marks
- Note: Grammar is not text based.

Syllabus

Section A (Lessons for Intensive study)

1. Hassan's Attendance Problem
2. The March King
3. Thinking Out of the Box: Lateral Thinking
4. Robots and People
5. On Giving Advice
6. On Saying 'Please'
7. The Story of My Life
8. Two Gentlemen of Verona
9. In Celebration of Being Alive
10. Gadari Babas in Kalapani Jail

Section B (Poetry)

1. Prayer of the Woods
2. On Friendship
3. The Echoing Green
4. Once upon a Time
5. Cheerfulness Taught by Reason
6. Father Returning Home
7. The Road Not Taken
8. On His Blindness

Section C (Lessons for Extensive study)

1. The School for Sympathy
2. A Chamelon
3. Bholi
4. The Gold Frame
5. The Barbar Trade Union
6. The Bull beneath the Earth

Section D (Grammar and Composition)

Grammar

1. Determiners
2. Use of Non-finites (Infinitives, Gerunds, Participles)
3. Transformation of Sentences
4. Voice
5. Narration

Composition

1. Précis writing
2. Letter writing (Official/Business/To Editors)
3. Applications for Jobs
4. Explaining Newspaper Headlines
5. E-Mail writing

Sudha Murty
Katherine Little Bakeless
(Adopted from the article from Internet)
Isaac Asimov
Joseph Addison
A. G. Gardiner
Helen Keller
A. J. Cronin
Dr. Christian Barnard
Dr. Harish Puri

Anonymous
Kahlil Gibran
William Blake
Gabriel Okara
Elizabeth Barrett Browning
Dilip Chitre
Robert Frost
John Milton

E. V. Lucas
Aton Chekhov
K. A. Abbas
R. K. Luxman
Mulk Raj Anand
K. S. Virk

ਸ਼੍ਰੇਣੀ ਬਾਰੂਵੀਂ
2. ਪੰਜਾਬੀ-ਲਾਜ਼ਮੀ
ਪਾਠ-ਕ੍ਰਮ ਅਤੇ ਅੰਕ-ਵੰਡ

ਸਮਾਂ : 3 ਘੰਟੇ

ਲਿਖਤੀ ਪੇਪਰ: 50 ਅੰਕ
 ਸੀ.ਸੀ.ਈ.: 25 ਅੰਕ
ਕੁੱਲ: 75 ਅੰਕ

ਲੜੀ ਨੰ:	ਪਾਠ-ਕ੍ਰਮ	ਅੰਕ
1.	ਪੰਜਾਬੀ ਸੱਭਿਆਚਾਰ ਦੀ ਜਾਣ-ਪਛਾਣ	18
2.	ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਲਿਖਣ ਦਾ ਹੁਨਰ:- ਕਾਰ-ਵਿਹਾਰ ਦੇ ਪੱਤਰ, ਸੰਖੇਪ-ਰਚਨਾ	09
3.	ਵਿਆਕਰਨ:- ਸ਼ਬਦ ਕੋਸ਼: ਵਾਚਣ ਵਿਧੀ ਅਤੇ ਵਾਕ-ਰੁਪਾਂਤਰ, ਅਖਾਉਤਾਂ	11
4.	ਪੰਜਾਬੀ-ਸਾਹਿਤ:- ਕਵਿਤਾਵਾਂ ਅਤੇ ਕਹਾਣੀਆਂ	12
ਕੁੱਲ ਅੰਕ		50

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ
ਪਰੀਖਿਆ ਪੱਖੋਂ ਅਧਿਆਪਕਾਂ, ਵਿਦਿਆਰਥੀਆਂ, ਪੇਪਰ ਸੈਂਟਰਾਂ ਅਤੇ ਪਰੀਖਿਅਕਾਂ ਲਈ ਵਿਸ਼ੇਸ਼ ਹਿਦਾਇਤਾਂ

ਪ੍ਰਸ਼ਨ ਨੰ: 1 ਸਮੁੱਚੇ ਪਾਠ-ਕ੍ਰਮ ਦੇ ਆਧਾਰ ਤੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ ਦਸ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦਾ 1/2 ਅੰਕ ਦਾ ਹੋਵੇਗਾ।

ਅੰਕਾਂ ਦੀ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ:

- (ੳ) **ਪੰਜਾਬੀ ਸੱਭਿਆਚਾਰ ਦੀ ਜਾਣ ਪਛਾਣ:-** 3 ਅੰਕ(ਲੇਖਕ ਦੀ ਰਚਨਾ, ਰਚਨਾ ਦਾ ਲੇਖਕ, ਗਲਤ/ਠੀਕ, ਬਹੁ-ਚੋਣ, ਖਾਲੀ ਥਾਂਵਾਂ, ਇੱਕ ਦੋ ਸ਼ਬਦਾਂ ਦੇ ਉੱਤਰ ਵਾਲੇ 6 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ।
- (ਅ) **ਕਵਿਤਾਵਾਂ:-** (ਕਵਿਤਾ ਦਾ ਕਵੀ/ ਕਵੀ ਦੀ ਰਚਨਾ) 1/2 ਅੰਕ
- (ੲ) **ਕਹਾਣੀਆਂ:-** (ਪਾਤਰਾਂ ਬਾਰੇ) 1/2 ਅੰਕ
- (ਸ) **ਅਖਾਉਤਾਂ:-** (2 ਅਧੂਰੀਆਂ ਅਖਾਉਤਾਂ ਪੂਰੀਆਂ ਕਰਨੀਆਂ) 1/2 + 1/2 = 1 ਅੰਕ
- $3 + 1/2 + 1/2 + 1 = 5$ ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 2 ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ -12, ਸੱਭਿਆਚਾਰ ਭਾਗ ਦੇ ਪਾਠਾਂ ਦੇ ਅਭਿਆਸਾਂ ਵਿੱਚੋਂ ਅੱਠ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਕੇ ਕਿਸੇ ਪੰਜ ਦਾ ਉੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 5×3=15 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 3 ਕਾਰ-ਵਿਹਾਰ ਦੇ ਪੱਤਰ ਲਈ ਦੋ ਵਿਸ਼ੇ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਬਾਰੇ ਪੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 1+ 3+1=5 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 4 ਸੰਖੇਪ-ਰਚਨਾ ਕਰਨ ਲਈ ਪਾਠ -ਪੁਸਤਕ ਵਿੱਚੋਂ ਇੱਕ ਪੈਰਾ ਦਿੱਤਾ ਜਾਵੇਗਾ। ਲਗ-ਪਗ ਇੱਕ ਤਿਹਾਈ ਸ਼ਬਦਾਂ ਵਿੱਚ ਸੰਖੇਪ ਰਚਨਾ ਕਰਨੀ ਹੋਵੇਗੀ ਅਤੇ ਸਿਰਲੇਖ ਵੀ ਲਿਖਣਾ ਹੋਵੇਗਾ। ਸੰਖੇਪ ਰਚਨਾ ਦੇ ਤਿੰਨ ਅੰਕ ਅਤੇ ਸਿਰਲੇਖ ਦਾ ਇੱਕ ਅੰਕ ਹੋਵੇਗਾ। 1+3=4 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 5 ਦੋ ਪ੍ਰਸ਼ਨ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਨੂੰ ਕੋਸ਼-ਤਰਤੀਬ ਅਨੁਸਾਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 3 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 6 ਕੋਈ ਪੰਜ ਵਾਕ ਦੇ ਕੇ ਕਿਸੇ ਤਿੰਨ ਦਾ ਵਾਕ - ਰੁਪਾਂਤਰਨ ਕਰਨ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 1×3=3 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 7 ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਕੋਈ ਸੱਤ ਅਖਾਉਤਾਂ ਦੇ ਕੇ ਚਾਰ ਨੂੰ ਵਾਕਾਂ ਵਿੱਚ ਵਰਤਣ ਜਾਂ ਉਹਨਾਂ ਦੀਆਂ ਵਰਤੋਂ ਸਥਿਤੀਆਂ ਦੱਸਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 1×4=4 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 8 ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਤਿੰਨ ਕਵਿਤਾਵਾਂ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਕੇਂਦਰੀ ਭਾਵ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 4 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 9 ਪਾਠ-ਪੁਸਤਕਾਂ ਵਿੱਚੋਂ ਦੋ ਕਹਾਣੀਆਂ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 7 ਅੰਕ

ਨਿਰਧਾਰਿਤ ਪਾਠ-ਪੁਸਤਕ ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ-12

ਪ੍ਰਕਾਸ਼ਕ- ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ

Class-XII
3. PUNJAB HISTORY AND CULTURE

Time: 3 hrs.

Theory: 50 Marks
CCE: 25 Marks
Total: 75 Marks

STRUCTURE OF QUESTION PAPER

1. There will be 20 questions in all. All questions will be compulsory.
2. Question No. 1 to 10 will carry 1 mark each. Answer to each question should be in about 1 - 15 words. $10 \times 1 = 10$
3. Question No. 11 to 15 will carry 2 marks each. Answer to each question should be in about 30- 35 words. $5 \times 2 = 10$
4. Question No. 16 to 19 will carry 5 marks each with 100% internal choice. Answer to each question should be in about 75-85 words. $4 \times 5 = 20$
5. Question No. 20 will carry 10 marks with 100% internal choice. Answer to each question should be in about 250 - 300 words. $1 \times 10 = 10$

TOPIC NO.	Questions carrying 1 mark	Questions carrying 2 marks	Questions carrying 5 marks	Questions carrying 10 marks
1, 2, 3,4	4	2	2	1
5,6,7,8,9,	6	3	2	(with 100% choice) 1
Total questions	10	5	4	1
Total marks	10	10	20	10

SYALLBUS

The great Mughals and their legacy to the Punjab.

Guru Nanak Dev Ji.

Successors of Guru Nanak Dev Ji.

Banda Singh Bahadur and his martyrdom.

Sikhs became the Masters of the Punjab.

The Punjab under Maharaja Ranjit Singh.

The British occupation of the Punjab.

Some famous Legends of the Punjab:-

- a. Puraan Bhagat
- b. Heer Ranjha
- c. Sohni Mahiwal

Classical Literature of the Medieval period.

Class-XII
4. ENVIRONMENTAL EDUCATION

ENVIRONMENTAL EDUCATION (Annual System 2012-13)
CLASS – XII

Theory marks	: 35
CCE	: 15
Total marks	: 50

Time: 2hrs

Structure of Question Paper

1. There will be one theory paper comprising of 16 questions. All questions will be compulsory.
2. Question No. 1-5 are very short answer type questions carrying 1 mark each. Answer to each question will be in one line or few words only.
3. Question No. 6-10 are short answer type questions carrying 2 marks each. Answer to each question will be in 20-30 words.
4. Question No. 11-15 are short answer type questions carrying 3 marks each. Answer to each question will be in 40-50 words.
5. Question No. 16 is long answer type question carrying 5 marks. Answer to this question will be in 80-100 words.
6. In Question no: 16, there will be 100 percent internal choice.
7. There will be no objective type questions such as yes/No, tick/cross, fill up the blanks, multiple choice, true/false etc.
8. The question paper should be strictly from the prescribed syllabus based on above mentioned guide lines.

Unit wise distribution of marks will be as follows.

Unit I Biodiversity	8- Marks
Unit II Environment Management	6- Marks
Unit III Sustainable Development	7- Marks
Unit IV Sustainable Agriculture	7- Marks
Unit V Environment Actions	7- Marks

SYLLABUS

Unit -1 Biodiversity

- Concept and value of biodiversity
- Levels of biodiversity species, eco and genetic.
- Balance in nature.
- Biodiversity for sustenance of mankind.
- Resource limitation.
- Ecological role of biodiversity.
- Interdependence among different species.
- India as a mega diversity nation.
- Economic potential of biodiversity.

- Loss of biodiversity-threatened, endangered and extinct.
- Strategies for conservation of biodiversity in situ and ex situ.
- Mitigating the people-wildlife conflict.

Unit -II Environmental Management

- Need for environment management vis-à-vis development.
- Aspects of environmental management-ethical, economic, technological and social.
- Legal provisions for environmental management.
- Approaches for environmental management-economic policies, environmental indicators, setting of standards, information exchange and surveillance.

Unit -III Sustainable Development

- Concept of sustainable development.
- Concept of sustainable consumption.
- Need for sustainable development for improving the quality of life for the present and future.
- Challenges for sustainable development-political and administrative will, dynamic and flexible policies, appropriate technologies, comprehensive review and revision mechanism, human approach.
- Development of skilled manpower.
- Role of individual and community.
- Role of national and International agencies (both governmental and non-governmental).

Unit -IV Sustainable Agriculture

- Need for sustainable agriculture.
- Green revolution-impact on environment.
- Importance of soil for crops. Irrigation systems, use of manure and fertilizers.
- Crop protection-major plant pests and diseases (wheat, rice, cotton sugarcane, potato),measures for their control-agrochemicals.
- Impact of agrochemicals on environment.
- Elements of sustainable agriculture-mixed farming, mixed cropping, crop rotation, biological and economic considerations, use of bio fertilizers and bio pesticides, biological pest control, integrated pest management.
- Application of biotechnology in crop improvement.
- Management of agricultural produce-storage, preservation, transportation and processing.

Unit -V Environmental Actions

- Meeting basic human needs, food, water, shelter and fuel for all.
- Population control
- Changing consumption patterns.
- Prevention and control of environmental pollution,
- Waste management- reduce, reuse and recycle;
- Community movement for ecological restoration and conservation of environment like joint forest Management (JFM), student's participation in tree rearing, social and agro-forestry.

CCE

Example projects and Activities:

It is expected that student will undertake two projects or activities. These projects should be undertaken individually and student will prepare a report in each case. Teachers may plan and design projects and activities depending upon the local situations, available resources and environmental issues of concern. The projects and activities given below are only suggestive and not prescriptive.

- To study the status of an endangered species listed for region by collecting information through different sources and observation and to assess the reasons for its diminishing number. Suggest ways and means to protect the species.
- To conduct a survey of plants and trees in the locality and collect information about their cultural, economic and medicinal values from the local people and available literature. To prepare an action plan for afforestation and planting of trees as trees are the most valuable in terms of their cultural, economic importance and medicinal use.
- To study the practices followed in the region for storage, preservation, transportation and processing of perishable or non perishable farm products and to assess the extent of their wastage due to faulty practices.
- To make a list of raw materials used by the family for preparing different types of dishes. To identify the plants and their parts from which food material is obtained. To make a list of plants on which the animals depend for their food. To prepare a report supported by diagrams/photographs/pictures/ graphs to focus on the importance of biodiversity in providing food to human population.

- To study the impact of changes in agricultural practices or animal husbandry including poultry, piggery, fishery and apiculture over a period of time in the local environment or in a given locality or village. The components for analysis may include; types of crop, land area under cultivation, mechanization, use of electricity, mode of irrigation and agrochemicals, agro wastes and their disposal, types of animal breed and their feed, types of shelter and health care, method of preservation and processing of products and animals wastes and their disposal. To suggest an action plan for modifying the prevailing practices so as to make them environment friendly and sustainable.

ਸ੍ਰੋਣੀ-ਬਾਰੂਵੀ
5. ਕੰਪਿਊਟਰ ਸਾਇੰਸ

ਲਿਖਤੀ: 30 ਅੰਕ

ਸਮਾਂ: 2 ਘੰਟੇ
ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ
ਪ੍ਰਯੋਗੀ : 40 ਅੰਕ
ਕੁੱਲ : 100 ਅੰਕ

ਅਗਵਾਈ ਲੀਹਾਂ (ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ)

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਤਿੰਨ ਭਾਗਾਂ (ਭਾਗ ਓ, ਭਾਗ ਅ, ਭਾਗ ਏ) ਵਿੱਚ ਵੰਡਿਆ ਹੋਵੇਗਾ।
2. ਭਾਗ ਓ ਆਬਜੈਕਟਿਵ ਟਾਇਪ ਹੋਵੇਗਾ ਜਿਸ ਵਿੱਚ 1 ਤੋਂ 8 ਤੱਕ 1-1 ਅੰਕ ਦੇ 8 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
3. ਭਾਗ ਅ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ 9 ਤੋਂ 13 ਤੱਕ 2-2 ਅੰਕ ਦੇ 5 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
4. ਭਾਗ ਏ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ 14 ਤੋਂ 16 ਤੱਕ 4-4 ਅੰਕ ਦੇ 3 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
5. ਭਾਗ ਓ ਅਤੇ ਭਾਗ ਅ ਦੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਜ਼ਰੂਰੀ ਹੋਣਗੇ। ਭਾਗ ਅ ਅਤੇ ਏ ਵਿੱਚ ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਦੋ ਜਾਂ ਦੋ ਤੋਂ ਵੱਧ ਭਾਗ ਵੀ ਹੋ ਸਕਦੇ ਹਨ। ਭਾਗ ਏ ਦੇ ਕਿਸੇ ਵੀ 2 ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚ ਅੰਦਰੂਨੀ ਛੋਟ ਹੋਵੇਗੀ।

ਲੜੀ ਨੰ:	ਅਧਿਆਇ ਦਾ ਨਾਂ	ਕੁੱਲ ਅੰਕ	1 ਅੰਕਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ	2 ਅੰਕਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ	4 ਅੰਕਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ
1.	ਸਟਰਿੰਗ ਫੰਕਸ਼ਨ ਦੀ ਵਰਤੋਂ	5	1	–	1
2.	ਯੂਜ਼ਰ ਡਿਫਾਇਨਡ ਫੰਕਸ਼ਨਜ਼	3	1	1	–
3.	ਵਿੰਡੋ ਮੂਵੀ ਮੋਕਰ-1	3	1	1	–
4.	ਵਿੰਡੋ ਮੂਵੀ ਮੋਕਰ-2	3	1	1	–
5.	ਨੈਟਵਰਕਿੰਗ ਸੰਕਲਪ	8	2	1	1
6.	ਲਾਈਬ੍ਰੇਰੀ ਫੰਕਸ਼ਨਜ਼	3	1	1	–
7.	ਈ-ਗਵਰਨੈਂਸ	5	1	–	1
	ਕੁੱਲ ਜੋੜ	30	8 ਪ੍ਰਸ਼ਨ	5 ਪ੍ਰਸ਼ਨ	3 ਪ੍ਰਸ਼ਨ

ਪਾਠ ਕ੍ਰਮ (ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ)

ਗਿਆਰ੍ਹਵੀਂ ਕਲਾਸ ਦੀ ਦੁਹਰਾਈ

- ਸੀ ਭਾਸ਼ਾ ਵਿੱਚ ਪ੍ਰੋਗਰਾਮਿੰਗ ਲਈ ਭੂਮਿਕਾ
- ਕੰਪਾਇਲਰ ਨਿਰਦੇਸ਼
- ਐਰੇ:- ਐਰੇ ਵਿੱਚ ਡਾਟਾ ਭਰਨਾ, ਐਰੇ ਦੇ ਮੁੱਲਾਂ ਦੀ ਪਹੁੰਚ ਕਰਨੀ, ਦੋ ਡਾਇਮੈਂਸ਼ਨਲ ਐਰੇ ਦੀ ਡਿਕਲੇਅਰੇਸ਼ਨ
- ਨੈਟਵਰਕਿੰਗ ਸੰਕਲਪ

1. ਸਟਰਿੰਗ ਫੰਕਸ਼ਨ ਦੀ ਵਰਤੋਂ

- ਭੂਮਿਕਾ
- ਡਿਕਲੇਅਰੇਸ਼ਨ ਅਤੇ ਸਟਰਿੰਗ ਵੇਰੀਏਬਲ
- ਪ੍ਰੋਗਰਾਮ ਸਟਰਿੰਗ ਦੀ ਪ੍ਰਿੰਟਿੰਗ ਪ੍ਰਦਰਸ਼ਿਤ ਕਰਨੀ
- ਸਟਰਿੰਗ ਪੜ੍ਹਨਾ ਅਤੇ ਲਿਖਣਾ : ਸਟਰਿੰਗ ਪੜ੍ਹਨਾ, ਸਟਰਿੰਗ ਲਿਖਣਾ, ਮੋਨੀਟਰ ਤੋਂ ਸਟਰਿੰਗ ਪੜ੍ਹਨਾ
- ਸਧਾਰਣ ਇਨਪੁੱਟ ਆਊਟਪੁੱਟ
- ਸਟਰਿੰਗ ਉਪਰੇਸ਼ਨ : ਸਟਰਕਟ ਫੰਕਸ਼ਨ (strcat () function)
- ਸਟਰਕੰਪ ਫੰਕਸ਼ਨ (strcmp () function)
- ਸਟਰਲਵਰ ਫੰਕਸ਼ਨ (strlwr () function)
- ਸਟਰਰੀਵ ਫੰਕਸ਼ਨ (strrev () function)
- ਸਟਰਅਪਰ ਫੰਕਸ਼ਨ (strupr () function)

ਪ੍ਰੋਗਰਾਮ ਪਰਿਭਾਸ਼ਾ -1

ਇਕ ਪ੍ਰੋਗਰਾਮ ਸਟਰਿੰਗ ਫੰਕਸ਼ਨਜ਼ ਦੀ ਵਰਤੋਂ ਬਿਨਾਂ ਦੋ ਸਟਰਿੰਗ ਨੂੰ ਕਨਕੇਟੀਨੇਟ (concatenate) ਕਰਨ ਲਈ ਅਤੇ ਇੱਕ ਨਵੀਂ ਸਟਰਿੰਗ ਬਣਾਉਣ ਲਈ।

ਪ੍ਰੋਗਰਾਮ ਪਰਿਭਾਸ਼ਾ - 2

ਇਕ ਪ੍ਰੋਗਰਾਮ ਸਟਰਿੰਗ ਫੰਕਸ਼ਨਜ਼ ਦੀ ਵਰਤੋਂ ਦੇ ਬਿਨਾਂ ਦੋ ਸਟਰਿੰਗਜ਼ ਦੀ ਤੁਲਨਾ ਲਈ।

ਪ੍ਰੋਗਰਾਮ ਪਰਿਭਾਸ਼ਾ – 3

ਇਕ ਪ੍ਰੋਗਰਾਮ ਸਟਰਿੰਗ ਦੀ ਵਰਤੋਂ ਬਿਨਾਂ ਦਿੱਤੇ ਗਏ ਟੈਕਸਟ ਨੂੰ ਉਲਟਾਉਣ ਲਈ।

2. ਯੂਜਰ ਡਿਵਾਈਡ ਫੰਕਸ਼ਨਜ਼

- ਭੂਮਿਕਾ
- ਬਿਲਟ ਇੰਨ ਫੰਕਸ਼ਨ/ਲਾਇਬਰੇਰੀ ਫੰਕਸ਼ਨ ਯੂਜਰ ਡੀਵਾਈਡ ਫੰਕਸ਼ਨਜ਼, ਫੰਕਸ਼ਨਜ਼ ਦੀ ਜ਼ਰੂਰਤ
- ਆਰਗੂਮੈਂਟ ਅਤੇ ਪੈਰਾਮੀਟਰ
- ਕੋਡ ਲਾਈਨ
- ਮਲਟੀਫੰਕਸ਼ਨ ਪ੍ਰੋਗਰਾਮ
- ਫੰਕਸ਼ਨ ਦੀ ਬਣਤਰ
- ਰਿਟਰਨ ਮੁੱਲ ਅਤੇ ਉਹਨਾਂ ਦੇ ਟਾਈਪਸ, ਸਿੰਪਲ ਰਿਟਰਨ
- ਫੰਕਸ਼ਨ ਨੂੰ ਕਾਲ ਕਰਨਾ
- ਫੰਕਸ਼ਨ ਨਾਲ ਆਰਗੂਮੈਂਟ, ਬਗੈਰ ਰਿਟਰਨ ਮੁੱਲ
- ਸਟੋਰੇਜ ਸ਼੍ਰੇਣੀਆਂ
- ਸਟੈਟਿਕ ਵੇਰੀਏਬਲ
- ਐਕਸਟਰਨਲ ਵੇਰੀਏਬਲ
- ਫੰਕਸ਼ਨ ਬਗੈਰ ਆਰਗੂਮੈਂਟ, ਰਿਟਰਨ ਮੁੱਲ ਨਾਲ

3. ਵਿੰਡੋ ਮੂਵੀ ਮੇਕਰ -1

- ਭੂਮਿਕਾ
- ਫਾਈਲ ਦੀਆਂ ਕਿਸਮਾਂ : ਆਡੀਓ ਫਾਈਲ, ਵੀਡੀਓ ਫਾਈਲ, ਪਿਕਚਰ ਫਾਈਲ
- ਕੋਲੈਕਸ਼ਨਜ਼, ਪ੍ਰੋਜੈਕਟ ਅਤੇ ਮੂਵੀਜ਼ ਨੂੰ ਜਾਨਣਾ
- ਸੋਰਸ ਫਾਈਲ
- ਵੀਡੀਓ ਕੈਪਚਰ ਡੀਵਾਈਸਜ਼
- ਆਡੀਓ ਕੈਪਚਰ ਡੀਵਾਈਸਜ਼
- ਕੈਪਚਰ ਡੀਵਾਈਸ ਦੀ ਸੂਚੀ: ਵੈਬ ਕੈਮਰਾ, ਐਨਾਲਾਗ ਕੈਮਰਾ ਜਾਂ ਵੀ. ਸੀ. ਆਰ. (V.C.R) ਦਾ ਐਨਾਲਾਗ ਕੈਪਚਰ (capture) ਕਾਰਡ ਨਾਲ ਜੋੜ
- ਡਿਜੀਟਲ ਵੀਡੀਓ ਕੈਮਰਾ ਜਾਂ ਵੀ.ਸੀ. ਆਰ ਦਾ IEEE 1394 ਪੋਰਟ ਨਾਲ ਜੋੜ, ਮਾਈਕਰੋਫੋਨ ਦਾ ਸਾਊਂਡ ਕਾਰਡ ਜਾਂ ਯੂ. ਐਸ. ਬੀ ਪੋਰਟ ਨਾਲ ਜੋੜ
- ਵਿੰਡੋਜ਼ ਮੂਵੀ ਮੇਕਰ ਇੰਟਰਫੇਸ: ਮੀਨੂੰ ਬਾਰ ਅਤੇ ਟੂਲ-ਬਾਰ, ਪੇਨਜ਼, ਸਟੋਰੀ-ਬੋਰਡ ਜਾਂ ਟਾਈਮ ਲਾਈਨ ਪੇਨਜ਼, ਕੋਲੈਕਸ਼ਨ ਪੇਨ, ਕਾਨਟੈਂਟਸ ਪੇਨ, ਡੀਟੇਲਜ਼, ਥੰਬ ਨੇਲ, ਮੋਨੀਟਰ
- ਸਟੋਰੀਬੋਰਡ: ਸਟੋਰੀ ਬੋਰਡ ਦੀ ਵਰਤੋਂ, ਸਟੋਰੀ ਬੋਰਡ ਦਾ ਨਿਰਮਾਣ
- ਵਿੰਡੋਜ਼ ਮੂਵੀਮੇਕਰ ਦੀ ਵਰਤੋਂ: ਮੂਵੀ ਟਾਸਕ ਪੇਨ, ਵੀਡੀਓ ਕੈਪਚਰ, ਐਡਿਟ ਵੀਡੀਓ, ਫਿਨਿਸ਼ ਵੀਡੀਓ
- ਕੋਲੈਕਸ਼ਨ, ਸਪਲਿਟ ਬਟਨ, ਸਕਰੀਨ ਸ਼ਾਟ ਬਟਨ, ਵੀਡੀਓ ਟਰੈਕ, ਆਡੀਓ ਟਰੈਕ, ਟਾਈਟਲ ਟਰੈਕ
- ਹੈਂਡਜ਼ ਆਨ ਵਿੰਡੋਜ਼ ਮੂਵੀਮੇਕਰ (hands on windows movie maker): ਨਿਊ ਪ੍ਰੋਜੈਕਟ ਖੋਲ੍ਹਣਾ, ਆਪਣੇ, ਕੰਪਿਊਟਰ ਤੋਂ ਵੀਡੀਓ ਇਮਪੋਰਟ ਕਰਨਾ, ਪਿਕਚਰ ਇੰਪੋਰਟ ਕਰਨਾ
- ਵੀਡੀਓ ਸਕਰੀਨ/ਮੋਨੀਟਰ: ਕਲਿਪ ਨੂੰ ਦੇਖਣਾ, ਨਿਊ ਕੋਲੈਕਸ਼ਨ ਬਣਾਉਣਾ, ਆਡੀਓ ਜਾਂ ਵੀਡੀਓ ਨੂੰ ਦੋ ਭਾਗਾਂ ਵਿੱਚ ਵੰਡਣਾ, ਸਪਲਿਟ ਕੀਤੀ ਹੋਈ ਆਡੀਓ ਜਾਂ ਵੀਡੀਓ ਨੂੰ ਜੋੜਨਾ, ਕਲਿਪ ਨੂੰ ਕੋਲੈਕਸ਼ਨ ਵਿੱਚ ਕਾਪੀ ਕਰਨਾ, ਇਕ ਵੀਡੀਓ ਤੋਂ ਮੋਨੀਟਰ ਰਾਹੀਂ ਪਿਕਚਰ ਲੈਣੀ

4. ਵਿੰਡੋ ਮੂਵੀ ਮੇਕਰ-2

- ਭੂਮਿਕਾ
- ਟਾਈਮ-ਲਾਈਨ ਵਿਊ
- ਸਟੋਰੀ ਬੋਰਡ ਵਿੱਚ ਵੀਡੀਓ ਕਲਿੱਪ ਜੋੜਨਾ
- ਸਟੋਰੀ ਬੋਰਡ ਵਿੱਚ ਦੁਬਾਰਾ ਤੋਂ ਤਰਤੀਬ ਵਾਰ ਕਰਨਾ, ਟਾਈਮ ਲਾਈਨ ਦਾ ਪ੍ਰਯੋਗ ਕਰਦੇ ਹੋਏ ਕਲਿਪਸ ਤੋੜਨਾ, ਇਕ ਵੀਡੀਓ ਨੂੰ ਤੋੜਨਾ
- ਕਲਿਪਸ ਦੀ ਟਰੀਮਿੰਗ: ਕਲਿਪਸ ਦੀ ਛਟਾਈ ਕਰਨਾ, ਇਕ ਕਲਿਪ ਦੀ ਟਰੀਮ ਜਾਂ ਛਾਂਟੀ ਕਰਨਾ, ਟਰੀਮ ਪੁਆਇੰਟ ਨੂੰ ਸਾਫ਼ ਕਰਨਾ, ਟੁੱਟੇ ਹੋਏ ਵੀਡੀਓ ਕਲਿਪਸ ਨੂੰ ਆਪਸ ਵਿੱਚ ਜੋੜਨਾ, ਮੂਵੀ ਨੂੰ ਐਡਿਟ ਕਰਨਾ, ਵੀਡੀਓ ਟਰਾਂਜਿਸ਼ਨ, ਵੀਡੀਓ ਇਫੈਕਟਸ, ਟਾਈਟਲ ਅਤੇ ਕਰੈਡਿਟਸ, ਵੀਡੀਓ ਟਰਾਂਜਿਸ਼ਨ ਨੂੰ ਲਾਗੂ ਕਰਨਾ, ਵੀਡੀਓ ਇਨਫੈਕਟਸ ਜੋੜਨਾ, ਟਾਈਟਲ ਤੇ

ਕਰੈਡਿਟ, ਪ੍ਰੀ-ਵਿਊ ਮੂਵੀ ਟਾਈਟਲ, ਆਡੀਓ ਐਡ ਕਰਨਾ, ਆਡੀਓ ਨੂੰ ਪਿਕਚਰ ਨਾਲ ਅਲਾਈਨ ਕਰਨਾ, ਆਡੀਓ ਕਲਿਪ ਦਾ ਟਾਈਮ ਲਾਈਨ ਵਿਊ, ਐਡਟਿੰਗ ਆਡੀਓ, ਵੀਡੀਓ ਦਾ ਆਡੀਓ ਘੱਟ ਜਾਂ ਵੱਧ ਕਰਨਾ ।

5. ਨੈਟਵਰਕਿੰਗ ਸੰਕਲਪ

- ਭੂਮਿਕਾ
- ਨੈਟਵਰਕਰ ਕੀ ਹੁੰਦਾ ਹੈ; ਨੈਟਵਰਕਿੰਗ ਲਈ ਲੋੜ, ਨੈਟਵਰਕਿੰਗ ਟਰਮੀਨੋਲੋਜੀ
- ਨੈਟਵਰਕ ਦੀਆਂ ਕਿਸਮਾਂ
- ਨੈਟਵਰਕ ਟੋਪੋਲੋਜੀ: ਟੋਪੋਲੋਜੀ ਕੀ ਹੁੰਦੀ ਹੈ, ਭੌਤਿਕ ਟੋਪੋਲੋਜੀ ਦੀਆਂ ਮੁੱਖ ਕਿਸਮਾਂ, ਲੀਨੀਅਰ ਬੱਸ ਟੋਪੋਲੋਜੀ, ਸਟਾਰ-ਟੋਪੋਲੋਜੀ, ਰਿੰਗ-ਟੋਪੋਲੋਜੀ, ਮੈਸ਼-ਟੋਪੋਲੋਜੀ, ਪਾਰਸ਼ਲ ਮੈਸ਼-ਟੋਪੋਲੋਜੀ
- ਪ੍ਰੋਟੋਕੋਲਜ਼: ਯੂਨੀਫਾਰਮ ਰਿਸੋਰਸ ਲੋਕੇਟਰ (ਯੂ.ਆਰ.ਐਲ) ਫਾਈਲ ਟਰਾਂਸਫਰ ਪ੍ਰੋਟੋਕੋਲ ਅਤੇ ਹਾਈਪਰਟੈਕਸਟ ਟਰਾਂਸਫਰ ਪ੍ਰੋਟੋਕੋਲ (ਫਾਈਲ ਟਰਾਂਸਫਰ ਪ੍ਰੋਟੋਕੋਲ, ਹਾਈਪਰਟੈਕਸਟ ਟਰਾਂਸਫਰ ਪ੍ਰੋਟੋਕੋਲ), ਪ੍ਰਾਈਵੇਟ ਨੈਟਵਰਕਸ
- ਚੈਨਲ ਦੀ ਵਿਚਾਰਧਾਰਾ: ਸੰਚਾਰ ਚੈਨਲ ਕੀ ਹੁੰਦਾ ਹੈ, ਡਾਟਾ ਬਦਲੀ ਦਰ
- ਸੰਚਾਰ ਮਾਧਿਅਮ: ਗਾਈਡਡ ਮੀਡੀਆ, ਅਨਗਾਈਡਡ ਮੀਡੀਆ, ਆਰ.ਐਫ ਪ੍ਰਸਾਰ
- ਨੈਟਵਰਕਿੰਗ ਡਿਵਾਇਸ: ਹੱਬ ਅਤੇ ਮੋਡਮ

6. ਲਾਈਬ੍ਰੇਰੀ ਫੰਕਸ਼ਨਜ਼

- ਫੰਕਸ਼ਨ
- ਸਟਰਲੇਨ ਫੰਕਸ਼ਨ (Strlen ())
- ਸਟਰੋਪੀ ਫੰਕਸ਼ਨ (Strcpy())
- ਸਟਰੀਟ ਫੰਕਸ਼ਨ (Strcat())
- ਸਟਰੈਮਪ ਫੰਕਸ਼ਨ (Strcmp())
- ਗੈਟਚਰ ਫੰਕਸ਼ਨ (getchar())
- ਪੁਟਚਰ ਫੰਕਸ਼ਨ (putchar())
- ਪ੍ਰਿੰਟਐਫ ਫੰਕਸ਼ਨ (Printf())
- ਸਕੈਨਐਫ ਫੰਕਸ਼ਨ (Scanf())
- ਕੋਸ ਫੰਕਸ਼ਨ (Cos())
- ਐਕਸਪ ਫੰਕਸ਼ਨ (Exp())
- ਪੋਵ ਫੰਕਸ਼ਨ (Pow())
- ਸਕਰਟ ਫੰਕਸ਼ਨ (Sqrt())
- ਐਫਮੋਡ ਫ ਫੰਕਸ਼ਨ (fmod())
- ਫੇਬਸ ਫੰਕਸ਼ਨ (Fabs())
- ਸੀਲ ਫੰਕਸ਼ਨ (Ceil ())
- ਫਲੋਰ ਫੰਕਸ਼ਨ (floor())
- ਇਜ਼ਲੋਅਰ ਅਤੇ ਇਜ਼ਅਪਰ ਫੰਕਸ਼ਨ (islower() and isupper())
- ਟੁਲੋਅਰ ਅਤੇ ਟੂਅਪਰ ਫੰਕਸ਼ਨ (tolower()) and (toupper ())
- ਫੰਕਸ਼ਨ ਦੇ ਲਾਭ

7. ਈ-ਗਵਰਨੈਂਸ (e-Governance)

- ਈ-ਗਵਰਨੈਂਸ ਦਾ ਪ੍ਰਯੋਗ:
- ਘੱਟ ਖਰਚ, ਤੇਜ਼ ਰਫਤਾਰ, ਕਿਤੇ ਵੀ ਕਿਸੇ ਵੀ ਟਾਇਮ, ਆਸਾਨ ਪ੍ਰਬੰਧ
- ਈ-ਗਵਰਨੈਂਸ ਦੇ ਅੱਲਗ-ਅੱਲਗ ਖੇਤਰ: ਇੰਟਰਨੈੱਟ ਬੈਂਕਿੰਗ, ਆਨ-ਲਾਈਨ ਰੇਲਵੇ ਅਤੇ ਹਵਾਈ ਟਿਕਟਿੰਗ, ਆਈ-ਟਿਕਟਿੰਗ, ਈ-ਟਿਕਟਿੰਗ, ਪਾਸਪੋਰਟ ਸੇਵਾਵਾਂ
- ਸੁਵਿਧਾ ਸੈਂਟਰ

ਕੰਪਿਊਟਰ ਸਾਇੰਸ
ਅਗਵਾਈ ਲੀਹਾਂ (ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ)

ਸਮਾਂ : 3 ਘੰਟੇ

ਅੰਕ: 40

ਪ੍ਰੀਖਿਆ ਲਈ ਅੰਕ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ :

ਸੈਕਸ਼ਨ - ਏ	ਵਾਇਵਾ - ਵੋਸ	5
ਸੈਕਸ਼ਨ - ਬੀ	ਪ੍ਰੋਗਰਾਮ ਰਿਕਾਰਡ ਫਾਇਲ	5
ਸੈਕਸ਼ਨ - ਸੀ	ਛੋਟੇ ਪ੍ਰੋਗਰਾਮ	10
ਸੈਕਸ਼ਨ - ਡੀ	ਵੱਡੇ ਪ੍ਰੋਗਰਾਮ	20

1. ਸੈਕਸ਼ਨ ਏ ਵਿੱਚ ਪ੍ਰੀਖਿਆਰਥੀ ਤੋਂ ਪਾਠ ਕ੍ਰਮ ਵਿੱਚੋਂ ਪੰਜ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰ ਪ੍ਰਸ਼ਨ ਇੱਕ ਇੱਕ ਅੰਕ ਦਾ ਹੋਵੇਗਾ। ਇਹ ਪ੍ਰਸ਼ਨ ਅਬਜੈਕਟਿਵ ਟਾਈਪ ਜਾਂ ਵਿਆਖਿਆ ਦੱਸਣੀ ਜਾਂ ਕੰਪਿਊਟਰ ਦੇ ਵੱਖ ਵੱਖ ਹਿੱਸਿਆਂ ਅਤੇ ਇਸ ਨਾਲ ਜੁੜੇ ਸਹਾਇਕਾਂ ਦੇ ਬਹੁਤ ਛੋਟੇ ਅਭਿਆਸ ਹੋਣਗੇ। 1 × 5 = 5 ਅੰਕ
2. ਸੈਕਸ਼ਨ ਬੀ ਵਿੱਚ ਪ੍ਰੀਖਿਆਰਥੀ ਦਾ ਸਲਾਨਾ ਪ੍ਰੋਗਰਾਮ ਰਿਕਾਰਡ ਫਾਇਲ ਚੈਕ ਕੀਤਾ ਜਾਵੇਗਾ। 5 ਅੰਕ
3. ਸੈਕਸ਼ਨ ਸੀ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ/ਪ੍ਰੋਗਰਾਮ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਪ੍ਰੀਖਿਆਰਥੀ ਨੂੰ ਦੋ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਕਰਨ ਦੀ ਖੁੱਲ੍ਹ ਹੋਵੇਗੀ। ਹਰ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਪੰਜ-ਪੰਜ ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ, ਹਰੇਕ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਲਈ ਅੰਦਰੂਨੀ ਅੰਕ ਵੰਡ ਪੇਪਰ ਸੈੱਟਰ ਕਰਕੇ ਦੇਵੇਗਾ। 2 × 5 = 10 ਅੰਕ
4. ਸੈਕਸ਼ਨ ਡੀ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ/ਪ੍ਰੋਗਰਾਮ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਪ੍ਰੀਖਿਆਰਥੀ ਨੂੰ ਦੋ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਕਰਨ ਦੀ ਖੁੱਲ੍ਹ ਹੋਵੇਗੀ। ਹਰ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਦਸ-ਦਸ ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ, ਹਰੇਕ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਲਈ ਅੰਦਰੂਨੀ ਅੰਕ ਵੰਡ ਪੇਪਰ ਸੈੱਟਰ ਕਰਕੇ ਦੇਵੇਗਾ। 2 × 10 = 20 ਅੰਕ

ਪਾਠ ਕ੍ਰਮ (ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ)

1. ਸਟਰਿੰਗ ਫੰਕਸ਼ਨ ਦੀ ਵਰਤੋਂ

- ਸਟਰਿੰਗ ਫੰਕਸ਼ਨ: ਡੇਕਲੇਰੇਸ਼ਨ, ਇਨਿਸ਼ੀਅਲਾਈਜ਼ੇਸ਼ਨ
- ਪ੍ਰੋਗਰਾਮ ਸਟਰਿੰਗ ਦੀ ਪ੍ਰਿੰਟਿੰਗ ਪ੍ਰਦਰਸ਼ਿਤ ਕਰਨੀ
- ਸਟਰਿੰਗ ਪੜ੍ਹਨਾ ਅਤੇ ਲਿਖਣਾ
- ਸਾਧਾਰਣ ਇੰਨਪੁਟ / ਆਊਟਪੁੱਟ ਗੈਟਚਰ, ਪੁੱਟਚਰ, ਪ੍ਰਿੰਟਐਫ (I/O getchar(), putchar(), printf())
- ਸਟਰਿੰਗ ਐਪਰੇਸ਼ਨ (string.h)

2. ਯੂਜ਼ਰ ਡਿਫਾਇੰਡ ਫੰਕਸ਼ਨਜ਼

- ਬਿਲਟ-ਇਨ ਫੰਕਸ਼ਨਜ਼/ਲਾਈਬ੍ਰੇਰੀ ਫੰਕਸ਼ਨਜ਼
- ਆਰਗੂਮੈਂਟਸ ਅਤੇ ਪੈਰਾਮੀਟਰਜ਼
- ਕੋਡ ਲਾਈਨ
- ਮਲਟੀਫੰਕਸ਼ਨ
- ਫੰਕਸ਼ਨ ਦੀ ਬਣਤਰ
- ਫੰਕਸ਼ਨ ਨੂੰ ਕਾਲ ਕਰਨਾ

3. ਵਿੰਡੋ ਮੂਵੀ ਮੇਕਰ-1

- ਆਡੀਓ-ਵੀਡੀਓ ਫਾਈਲ
- ਪ੍ਰੋਜੈਕਟ, ਮੂਵੀ, ਕੈਪਚਰਿੰਗ, ਸਪਲਿਟਿੰਗ

4. ਵਿੰਡੋ ਮੂਵੀ ਮੇਕਰ-2

- ਟਾਈਮ ਲਾਈਨ ਵਿਊ
- ਪ੍ਰੋਜੈਕਟ ਨੂੰ ਚਲਾਉਣਾ
- ਟ੍ਰੀਮਿੰਗ
- ਐਡਿਟਿੰਗ
- ਵੀਡੀਓ ਟਰਾਂਜਿਸ਼ਨ
- ਵੀਡੀਓ ਇਫੈਕਟ
- ਵੀਡੀਓ ਟਾਈਟਲ
- ਵੀਡੀਓ ਕਰੈਟਿਡ
- ਵੀਡੀਓ ਪ੍ਰੀਵਿਊ

5. ਲਾਈਬ੍ਰੇਰੀ ਫੰਕਸ਼ਨਜ਼

- ਫੰਕਸ਼ਨ
- ਸਟਰਲੇਨ ਫੰਕਸ਼ਨ (Strlen ())
- ਸਟਰੋਪੀ ਫੰਕਸ਼ਨ (Strcpy())
- ਸਟਰੀਟ ਫੰਕਸ਼ਨ (Strcat())
- ਸਟਰੈਮਪ ਫੰਕਸ਼ਨ (Strcmp())
- ਗੈਟਚਰ ਫੰਕਸ਼ਨ (getchar())
- ਪੁਟਚਰ ਫੰਕਸ਼ਨ (putchar())
- ਪ੍ਰਿੰਟਐਫ ਫੰਕਸ਼ਨ (Printf())
- ਸਕੈਨਐਫ ਫੰਕਸ਼ਨ (Scanf())
- ਕੋਸ ਫੰਕਸ਼ਨ (Cos())
- ਐਕਸਪ ਫੰਕਸ਼ਨ (Exp())
- ਪੋਵ ਫੰਕਸ਼ਨ (Pow())
- ਸਕਰਟ ਫੰਕਸ਼ਨ (Sqrt())
- ਐਫਮੋਡ ਫ ਫੰਕਸ਼ਨ (fmod())
- ਫੇਬਸ ਫੰਕਸ਼ਨ (Fabs())
- ਸੀਲ ਫੰਕਸ਼ਨ (Ceil ())
- ਫਲੋਰ ਫੰਕਸ਼ਨ (floor())
- ਇਜ਼ਲੋਅਰ ਅਤੇ ਇਜ਼ਅਪਰ ਫੰਕਸ਼ਨ (islower() and isupper())
- ਟੂਲੋਅਰ ਅਤੇ ਟੂਅਪਰ ਫੰਕਸ਼ਨ (tolower()) and (toupper ())
- ਫੰਕਸ਼ਨ ਦੇ ਲਾਭ

ਸ਼੍ਰੇਣੀ-ਬਾਰੂਵੀਂ
6. ਪੰਜਾਬੀ (ਚੋਣਵਾਂ ਵਿਸ਼ਾ)
ਪਾਠਕ੍ਰਮ

ਸਮਾਂ : 3 ਘੰਟੇ

ਲਿਖਤੀ ਪੇਪਰ: 70 ਅੰਕ
 ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ
 ਕੁੱਲ: 100 ਅੰਕ

ਲੜੀ ਨੰ:	ਪਾਠ-ਕ੍ਰਮ	ਅੰਕ
1.	ਪੰਜਾਬੀ-ਕਾਵਿ:- ਸੂਫੀ-ਕਾਵਿ, ਗੁਰਮਤਿ-ਕਾਵਿ, ਬੀਰ-ਕਾਵਿ, ਕਿੱਸਾ-ਕਾਵਿ	30
2.	ਪੰਜਾਬੀ ਵਾਰਤਕ:- ਪੰਜਾਬੀ ਸ਼੍ਰੇਣੀਵਨੀਆਂ ਵਿੱਚੋਂ ਲਏ ਅੰਸ਼	17
3.	ਸਾਹਿਤ ਰੂਪ:- ਕਵਿਤਾ, ਨਾਟਕ, ਇਕਾਂਗੀ, ਨਾਵਲ, ਨਿੱਕੀ ਕਹਾਣੀ, ਨਿਬੰਧ, ਜੀਵਨੀ, ਸ਼੍ਰੇਣੀਵਨੀ ਸਫ਼ਰਨਾਮਾ	11
4.	ਛੰਦ, ਅਲੰਕਾਰ, ਰਸ	12
ਕੁੱਲ ਅੰਕ		70

ਅਧਿਆਪਕਾਂ, ਵਿਦਿਆਰਥੀਆਂ, ਪੇਪਰ ਸੈੱਟਰਾਂ ਅਤੇ ਪਰੀਖਿਅਕਾਂ ਲਈ ਵਿਸ਼ੇਸ਼ ਹਿਦਾਇਤਾਂ।

ਪ੍ਰਸ਼ਨ ਨੰ: 1 ਸਮੁੱਚੇ ਪਾਠ-ਕ੍ਰਮ ਦੇ ਅਧਾਰ ਤੇ 10 ਅੰਕਾਂ ਦੇ ਵਸਤੂ-ਨਿਸ਼ਠ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਇਹ ਪ੍ਰਸ਼ਨ ਬਹੁ ਚੋਣ, ਠੀਕ/ਗਲਤ, ਖਾਲੀ ਥਾਂਵਾਂ ਜਾਂ ਇੱਕ ਜਾਂ ਦੋ ਸ਼ਬਦਾਂ ਵਿੱਚ ਉੱਤਰ ਦੇਣ ਵਾਲੇ ਹੋਣਗੇ। ਅੰਕਾਂ ਦੀ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ :-

(ੳ) **ਮੱਧ-ਕਾਲੀਨ ਪੰਜਾਬੀ-ਕਾਵਿ (ਝਲਕਾਂ ਤੇ ਇਤਿਹਾਸ) (ਭਾਗ-2):-** 4 ਅੰਕ, ਇੱਕ-ਇੱਕ ਪ੍ਰਸ਼ਨ ਸੂਫੀ-ਕਾਵਿ, ਗੁਰਮਤਿ-ਕਾਵਿ, ਬੀਰ-ਕਾਵਿ ਅਤੇ ਕਿੱਸਾ-ਕਾਵਿ ਵਿੱਚੋਂ ਪੁੱਛਿਆ ਜਾਵੇਗਾ। ਇਹ ਪ੍ਰਸ਼ਨ ਰਚਨਾ ਦੇ ਕਵੀ/ਕਵੀ ਦੀ ਰਚਨਾ ਅਤੇ ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਦਿੱਤੀ ਪਾਠ-ਸਮਗਰੀ ਤੇ ਆਧਾਰਿਤ ਹੋਣਗੇ।

(ਅ) **ਆਪ-ਬੀਤੀਆਂ:-** 2 ਅੰਕ, ਇੱਕ ਪ੍ਰਸ਼ਨ ਸ਼੍ਰੇਣੀਵਨੀ ਅੰਸ਼ ਦੇ ਲੇਖਕ ਸੰਬੰਧੀ/ ਲੇਖਕ ਦੇ ਸ਼੍ਰੇਣੀਵਨੀ ਅੰਸ਼ ਸੰਬੰਧੀ ਅਤੇ ਦੂਜਾ ਪ੍ਰਸ਼ਨ ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਨਿਰਧਾਰਿਤ ਪਾਠ ਸਮਗਰੀ 'ਤੇ ਆਧਾਰਿਤ ਹੋਵੇਗਾ।

(ੲ) **ਸਾਹਿਤ-ਬੋਧ:-** 4 ਅੰਕ, ਇੱਕ ਪ੍ਰਸ਼ਨ ਸਾਹਿਤ-ਰੂਪ ਨਾਲ ਸੰਬੰਧਿਤ, ਇੱਕ ਪ੍ਰਸ਼ਨ ਅਲੰਕਾਰ ਨਾਲ, ਇੱਕ ਪ੍ਰਸ਼ਨ ਛੰਦ ਨਾਲ ਅਤੇ ਇੱਕ ਪ੍ਰਸ਼ਨ ਰਸ ਨਾਲ ਸੰਬੰਧਿਤ ਹੋਵੇਗਾ। 10×1=10 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 2 ਮੱਧ-ਕਾਲੀਨ ਪੰਜਾਬੀ ਕਾਵਿ (ਝਲਕਾਂ ਤੇ ਇਤਿਹਾਸ) ਦੇ ਚਾਰ ਕਾਵਿ-ਟੋਟੇ ਦੇ ਕੇ ਕਿਸੇ ਦੋ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰਨ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। ਹਰ ਪ੍ਰਸੰਗ ਲਈ 2 ਅਤੇ ਵਿਆਖਿਆ ਦੇ 4 ਅੰਕ ਹੋਣਗੇ। 6+6=12 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 3 ਕਵਿਤਾ ਭਾਗ ਸੂਫੀ-ਕਾਵਿ, ਗੁਰਮਤਿ ਕਾਵਿ, ਬੀਰ-ਕਾਵਿ ਅਤੇ ਕਿੱਸਾ ਕਾਵਿ ਵਿੱਚੋਂ ਕੋਈ ਤਿੰਨ ਰਚਨਾਵਾਂ ਦੇ ਨਾਂ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਦਾ ਕੇਂਦਰੀ ਭਾਵ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 4 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 4 ਮੱਧ-ਕਾਲੀਨ ਪੰਜਾਬੀ ਕਾਵਿ (ਝਲਕਾਂ ਤੇ ਇਤਿਹਾਸ) ਪੁਸਤਕ ਦੇ ਇਤਿਹਾਸ ਭਾਗ ਵਿੱਚੋਂ ਕੋਈ ਦੋ ਪ੍ਰਸ਼ਨ ਦੇ ਕੇ ਇੱਕ ਦਾ ਉੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 10 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 5 'ਆਪ-ਬੀਤੀਆਂ' ਪਾਠ-ਪੁਸਤਕ ਅਤੇ ਪਾਠ-ਅਭਿਆਸਾਂ ਉੱਤੇ ਆਧਾਰਿਤ ਅੱਠ ਛੋਟੇ ਉੱਤਰਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਅਤੇ ਉਹਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਪੰਜ ਦੇ ਉੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 5×3=15 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 6 'ਸਾਹਿਤ-ਬੋਧ' ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਕਿਸੇ ਤਿੰਨ ਸਹਿਤ ਰੂਪਾਂ ਦੇ ਨਾਂ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਬਾਰੇ ਨੋਟ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 10 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਨੰ: 7 'ਸਾਹਿਤ-ਬੋਧ' ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਦੋ ਛੰਦਾਂ, ਦੋ ਅਲੰਕਾਰਾਂ ਅਤੇ ਦੋ ਰਸਾਂ ਬਾਰੇ ਪੁੱਛਿਆ ਜਾਵੇਗਾ ਅਤੇ ਕਿਸੇ ਇੱਕ ਛੰਦ, ਇੱਕ ਅਲੰਕਾਰ ਅਤੇ ਇੱਕ ਰਸ ਬਾਰੇ ਉਦਾਹਰਨਾਂ ਸਹਿਤ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 3+3+3 =9 ਅੰਕ

ਨਿਰਧਾਰਿਤ ਪਾਠ-ਪੁਸਤਕਾਂ :-

1. ਮੱਧ-ਕਾਲੀਨ ਕਾਵਿ (ਝਲਕਾਂ ਤੇ ਇਤਿਹਾਸ)

2. ਆਪ-ਬੀਤੀਆਂ

3. ਸਾਹਿਤ-ਬੋਧ

ਪ੍ਰਕਾਸ਼ਕ: ਪੰਜਾਬ ਸਕੂਲ ਸਿੱਖਿਆ ਬੋਰਡ।

7. HINDI

	पाठ्यक्रम	
	विषय : हिंदी	पूर्णांक -70
समय : 3 घंटे	कक्षा : बारहवीं	सी.सी.ई- 30

भाग-क : अति लघूत्तर प्रश्न 10

- 1.समास : अव्ययीभाव,तत्पुरुष,बहुब्रीहि तथा द्वंद्व (4)
- 2.पद परिचय (2)
- 3.पारिभाषिक शब्दावली (4)

भाग-ख : पाठ्य -पुस्तक 26

भाग-ग -हिंदी साहित्य का इतिहास (रीतिकाल एवं आधुनिक काल) 14

भाग-घ - रचनात्मक लेखन : निबंध लेखन 10

भाग-ङ - व्यावहारिक ज्ञान 10

1. पंजाबी गद्यांश का हिंदी अनुवाद (4)
2. विज्ञापन, सूचना लेखन (3)
3. छंद (दोहा,सोरठा,सवैया,कवित्त,चौपाई) अथवा
अलंकार (अनुप्रास,उपमा,रूपक,यमक,श्लेष) (3)

पंजाब स्कूल शिक्षा बोर्ड द्वारा निर्धारित पाठ्य - पुस्तकें

1. हिंदी पुस्तक-12
2. हिंदी भाषा बोध और व्याकरण (ग्यारहवीं और बारहवीं कक्षा के लिए)
3. हिंदी साहित्य का इतिहास (ग्यारहवीं और बारहवीं कक्षा के लिए)

प्रश्न-पत्र की रूपरेखा

विषय : हिंदी

कक्षा : बारहवीं

समय : 3 घंटे

पूर्णांक -70

सी.सी.ई - 30

प्रश्न-पत्र के पाँच भाग होंगे।

भाग-क (अति लघूत्तर प्रश्न)

10

- प्रश्न-1 (i) समास / विग्रह से सम्बन्धित छः शब्द देकर किन्हीं चार शब्दों के उत्तर लिखने के लिये कहा जायेगा। (4)
- (ii) दो वाक्य देकर किसी एक वाक्य में रेखांकित किये गये दो पदों का परिचय लिखने के लिये कहा जायेगा। (2)
- (iii) अंग्रेज़ी के छः पारिभाषिक शब्द दिये जायेंगे जिनमें से किन्हीं चार शब्दों के हिंदी रूप लिखकर वाक्यों में प्रयोग करने के लिये कहा जायेगा। (4)

भाग-ख (पाठ्य - पुस्तक)

26

प्रश्न-2 (क) हिंदी पुस्तक-12 में संकलित 'प्राचीन काव्य' में से दो पद्यांश दिये जायेंगे जिनमें से एक पद्यांश की सप्रसंग व्याख्या लिखने के लिये कहा जायेगा। प्रसंग के लिये 1 अंक तथा व्याख्या के लिये 3 अंक निर्धारित हैं। $1+3= (4)$

(ख) हिंदी पुस्तक-12 में संकलित 'आधुनिक काव्य' में से दो पद्यांश दिये जायेंगे जिनमें से एक पद्यांश की सप्रसंग व्याख्या लिखने के लिये कहा जायेगा। प्रसंग के लिये 1 अंक तथा व्याख्या के लिये 3 अंक निर्धारित हैं। $1+3= (4)$

प्रश्न-3 (क) 'प्राचीन काव्य' की विषय वस्तु से सम्बन्धित दो लघूत्तर प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 40 शब्दों में लिखने के लिये कहा जायेगा। (2)

(ख) 'आधुनिक काव्य' की विषय वस्तु से सम्बन्धित दो लघूत्तर प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 40 शब्दों में लिखने के लिये कहा जायेगा। (2)

प्रश्न-4 पाठ्य - पुस्तक में संकलित गद्य भाग में से दो गद्यांश दिये जायेंगे जिनमें से एक गद्यांश की सप्रसंग व्याख्या लिखने के लिये कहा जायेगा। प्रसंग के लिये 1 अंक तथा व्याख्या के लिये 3 अंक निर्धारित हैं। $1+3= (4)$

प्रश्न-5 पाठ्य - पुस्तक में संकलित गद्य भाग की विषय वस्तु से सम्बन्धित दो निबन्धात्मक प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 100 शब्दों में लिखने के लिये कहा जायेगा। (4)

नोट :- प्रश्न-पत्र निर्माता पाठ्य - पुस्तक में संकलित गद्य भाग (निबन्ध, कहानी एवं एकांकी) की सभी विधाओं को पूर्ण प्रतिनिधित्व दे।

प्रश्न-6 पाठ्य - पुस्तक में संकलित 'निबन्ध' भाग में से दो लघूत्तर प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 50 शब्दों में लिखने के लिये कहा जायेगा। (2)

प्रश्न-7 पाठ्य - पुस्तक में संकलित 'कहानी' भाग में से दो लघूत्तर प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 50 शब्दों में लिखने के लिये कहा जायेगा। (2)

प्रश्न-8 पाठ्य - पुस्तक में संकलित 'एकँकी' भाग में से दो लघूत्तर प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 50 शब्दों में लिखने के लिये कहा जायेगा। (2)

भाग-ग हिंदी साहित्य का इतिहास (रीतिकाल एवं आधुनिक काल) 14

प्रश्न-9 इस प्रश्न में हिंदी साहित्य के 'रीतिकाल'की प्रमुख परिस्थितियों , प्रमुख प्रवृत्तियों एवं प्रमुख कवियों से सम्बन्धित दो निबन्धात्मक प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 150 शब्दों में लिखने के लिये कहा जायेगा। (5)

प्रश्न-10 इस प्रश्न में हिंदी साहित्य के 'आधुनिक काल'की प्रमुख परिस्थितियों , प्रमुख प्रवृत्तियों एवं प्रमुख कवियों से सम्बन्धित दो निबन्धात्मक प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लगभग 150 शब्दों में लिखने के लिये कहा जायेगा। (5)

प्रश्न-11 इस प्रश्न में हिंदी साहित्य के 'रीतिकाल' एवं 'आधुनिक काल' में से छः वस्तुनिष्ठ लघु प्रश्न पूछे जायेंगे जिनमें से चार प्रश्नों का उत्तर लिखने के लिये कहा जायेगा। (4)

भाग-घ (रचनात्मक लेखन) 10

प्रश्न-12 यह प्रश्न निबंध रचना से सम्बन्धित होगा। कोई चार विषय देकर उनमें से किसी एक विषय पर लगभग 250 शब्दों में निबंध लिखने के लिये कहा जायेगा । भूमिका के 2 अंक, विषय वस्तु के 6 अंक और उपसंहार के 2 अंक निर्धारित हैं । $2+6+2=(10)$

भाग-ङ (व्यावहारिक ज्ञान) 10

प्रश्न-13 इस प्रश्न में लगभग 60 शब्दों का पंजाबी में एक गद्यांश दिया जायेगा जिसका अनुवाद हिंदी में लिखना होगा । (4)

प्रश्न-14 विज्ञापन और सूचना से सम्बन्धित दो प्रश्न पूछे जायेंगे जिनमें से एक प्रश्न का उत्तर लिखने के लिये कहा जायेगा। (3)

प्रश्न-15 कोई दो छंद देकर किसी एक छंद का लक्षण एवं उदाहरण लिखने के लिये कहा जायेगा।
अथवा
कोई दो अलंकार देकर किसी एक अलंकार की परिभाषा एवं उदाहरण लिखने के लिये कहा जायेगा। (3)

Class-XII
8. ENGLISH ELECTIVE

Time: 3hrs.

Theory: 70 marks
CCE: 30 marks
Total: 100 marks

STRUCTURE OF QUESTION PAPER

Part –A

Objective type question No. 1 will be compulsory. (16 marks)

(a) It will carry 16 marks and consist of 16 questions of 1 mark each.

Objective type question will cover the whole syllabus.

I APPLIED GRAMMAR 10

Do as directed type questions covering the following items:

- | | |
|---|---|
| I. Change of Voice | 2 |
| II. Change of Narration | 2 |
| III. Combining two simple sentences into one use linkers etc. | 2 |
| IV. Use of Modals | 2 |
| V. Transformation of sentences (use of gerunds, to-infinitive, participles, adverbials) | 2 |

Note: The above question will be based as far as possible, on the text books.

Two questions each from text book will be asked. **6**

- | | |
|--|---|
| 1. Dear to All the Muses | 2 |
| 2. The Literary Petals | 2 |
| 3. Select One Act Plays/ Pride and Prejudice | 2 |

PART B- DEAR TO ALL THE MUSES (14 marks)

(Text for detailed study)

II. Comprehension of a passage : 8

Comprehension to be tested with the help of the following techniques :

- | | |
|--|---|
| (i) Three short- answer questions | 3 |
| (ii) Matching exercise (Two words to be matched out of four words) | 2 |
| (iii) Fill in the blanks (Two sentences) | 2 |
| (iv) Finding one word for a given expression from the passage. | 1 |

III. 2 out of 3 short answer type questions based on the contents of different lessons (to be answered in 50-60 words each). 2×3=6

PART C-THE LITERARY PETALS (13 marks)

(Text for detailed study)

- IV. (a) Two short answer type questions (to be answered in 50-60 word each) 1**
from story and 1 from poem as suggested at the end of each lesson, with internal choice in each question. **3x2=6**
- (b) One essay type (long answer type) comprehension question (with internal choice) as suggested in the exercises at the end of each story. 4**

V. Explanation with Reference to the Context (POEMS ONLY) of a given stanza/lines.

OR

A question on summary/substance/development of thought etc. of a poem (with internal choice) **3**

PART D-SELECT ONE-ACT PLAYS (Text for non-detailed study) / PRIDE AND PREJUDICE **(12 marks)**

SELECT ONE-ACT PLAYS

VI	(a)	Explanation with Reference to the Context.	4
	(b)	Character – Sketch (with internal choice)	4
	(c)	Question on theme/incident/episode etc.	4

OR

PRIDE AND PREJUDICE

(a)	Character sketch (with internal choice)	6
(b)	Theme/Incident/Episode (with internal choice)	6

PART-E COMPOSITION & VOCABULARY **(15 marks)**

VII	Paragraph Writing (one out of five)	6
VIII	Vocabulary	
	(a) Match the words	2
	(b) One word expression	1
	(c) Use of a word as a noun and a verb	1

Note: Vocabulary question will be based on the exercises given in the text books meant for detailed study:

- (i) The Literary Petals
- (ii) Dear to All the Muses

IX TRANSLATION 5 marks

From Vernacular into English

A small running passage of about 5/6 sentences.

Note: A special question in lieu of translation for foreign students:

**ELECTIVE ENGLISH
SYLLABUS
PART-A**

DEAR TO ALL THE MUSES

LESSON

1. The Horse
2. Warrior against Weeds
3. A Most Forgiving Ape
4. A Young Turkish Catastrophe
5. A Tiny Sanctuary
6. Mano Majra
7. Jamaican Fragment
8. The Heritage of India
9. Gold in the North
10. My Greatest Olympic Prize
11. The Green Revolution
12. The Snob
13. Most Dear to All the Muses
14. The Case For the Defence
15. On My Seventieth Birthday

THE LITERARY PETALS:**LESSON:**

1. Hind ki Chadar Sri Guru Teg Bahadur
2. Border Guards (Poem)
3. My Heart Leaps when I Behold (Poem)
4. The Gambling Match
5. The Quality of Mercy (Poem)
6. The Fancy Dress Show (Poem)
7. The Eternal Why
8. What Though the Field be Lost (Poem)
9. The Song of India (Poem)
10. After Twenty Years
11. The Tree Fell down (Poem)
12. The World Today is Wild with the Delirium of Hatred (Poem)
13. Attacked by Pit Bulls
14. Slave ? No Master (Poem)
15. The Unrest of Desire (Poem)
16. The Boy Who Broke the Bank
17. Still Life (Poem)
18. Is This The End? (Poem)
19. The Conjuror's Revenge
20. Guru (Poem)
21. A River Tern on the Ganga (Poem)
22. The Ant and the Grasshopper
23. A Psalm of Life (Poem)
24. Hymn of Swaraaj (Poem)

SELECT ONE-ACT PLAYS

1. The Bishop's Candlesticks
2. The Miracle-Merchant
3. The Man Who Wouldn't Go to Heaven
4. The Monkey's Paw

Novel: Pride & Prejudice**PART-B****COMPOSITION, VOCABULARY, APPLIED GRAMMAR**

Paragraph Writing/ Extended Composition

Translation : 1 Paragraph from Hindi/Punjabi to English.

APPLIED GRAMMAR: Do as directed type questions covering the following items

- (i) Change of Narration
- (ii) Change of Voice
- (iii) Joining two simple sentences into one using linkers etc
- (iv) Use of Modals
- (v) Transformation of Sentences (Use of gerunds, Infinitives, Participles adverbials)

Note: Applied Grammar will be covered in Objective type question.

9. URDU

SYLLABUS OF URDU ELECTIVE CLASS 12th (2012-13)

نصابی کتاب: گلستانِ ادب: (بارہویں جماعت کیلئے اردو کی درسی کتاب) شائع کردہ: NCERT NEW DELHI
امدادی کتاب: گلدستہ مضامین و انشاء پر دہائی حصہ دوم از ڈاکٹر محمد عارف خاں شائع کردہ: ایجوکیشنل بک ہاؤس علی گڑھ

نوٹ: درج ذیل اسباق اور شعری تخلیقات نصاب میں شامل نہیں ہیں۔

حصہ نثر	حصہ نظم
1- خوجی۔ ایک مطالعہ	1- اوّل شب و بزم کی رونق، پروانہ بعض
2- امراؤ جان ادا	2- زماں، مکاں تھے مرے سامنے بکھرتے ہوئے
3- میں، وہ	3- ارتقاء
4- اس آباد خرابے میں (انتخاب)	4- یادنگر
5- غالبؔ جدید شعراء کی ایک مجلس میں	5- وقت کا ترانہ
6- کلیم الدین احمد	

وقت 3 گھنٹے

تحریری پرچہ نمبر: 70

داخلی تعین نمبر: 30

کل نمبر 100

- I- پانچ مختصر و لازمی سوالات کے جوابات تحریر کرنا۔
5x2=10
 - II- سیاق و سباق کے حوالے سے تین دیئے گئے نثر پاروں میں سے کسی دو کی آسان اردو میں تشریح۔
5x2=10
 - III- نصاب میں شامل اسباق میں سے کسی ایک کا خلاصہ لکھنا۔
5
 - IV- درج ذیل اصناف میں سے کسی ایک پر نوٹ لکھنا۔
5
 - V- مندرجہ ذیل نثر نگاروں میں سے کسی ایک کے حالات زندگی اور ادبی خدمات پر نوٹ لکھنا۔
5
- رپورتاژ، انشائیہ، سفرنامہ
اقبال مجید، سجاد ظہیر، کرشن چندر، خواجہ حسن نظامی، رام لعل

पाठ्यक्रम
बारहवीं श्रेणी
संस्कृत

भाग -क (पाठ्य पुस्तक के 1 से 19 तक पाठ)

- 1 गद्यांशों का हिन्दी या पंजाबी या अंग्रेज़ी में अनुवाद ।
- 2 पद्यों का हिन्दी या पंजाबी या अंग्रेज़ी में प्रसंग सहित अर्थ ।
- 3 पाठों के अभ्यासों में से हिन्दी में प्रश्न ।
- 4 पाठों के अभ्यासों में से संस्कृत लघु प्रश्न ।
- 5 पाठों के अभ्यासों में से संस्कृत शब्दों का वाक्यों में प्रयोग ।

अथवा

- व्यावहारिक संस्कृत शब्दों का हिन्दी में अनुवाद ।
- 6 पाठों के अभ्यासों में से यथानिर्दिष्ट परिवर्तन ।
- 7 प्राचीन लेखकों/कवियों का साहित्यिक परिचय ।

भाग-ख (व्याकरण भाग)

- 8 (क) शब्द रूप : (पु.) गो, पितृ, राजन्, चन्द्रमस्, ।
(नपुं.) मित्र, अक्षि, पयस् ।
(स्त्री.) बाला, स्त्री, वधू, ।
(ख) धातु रूप : (लट्, लोट्, लङ्, विधिलिङ्, लृट्)
भ्वादिगण : (परस्मैपद) भू, व्रज्, खाद्, घ्रा ।
अदादिगण : (प.) अस्, हन् ।
चुरादिगण : (प.) दण्ड् ।
तनादिगण : (प.) कृ ।
कयादिगण : (प.) ज्ञा, ग्रह् ।

(ग) कारक : अशुद्ध- शुद्ध वाक्यों पर आधारित ।

- 9 (क) समास : तत्पुरुष (सप्तमी विभक्ति तक) नञ्, अलुक् ।

अथवा

प्रत्यय :- कृदन्त प्रत्यय- तव्यत्, अनीयर्, यत्, ल्युट्, तुमुन् ।

(ख) अलंकार: और छंद -

(क) शब्दालंकार - अनुप्रास, यमक ।

(ख) अर्थालंकार - रूपक, उत्पेक्षा, उपमा, अर्थान्तर न्यास ।

अथवा

- छन्द :- अनुष्टुप्, वंशस्थ, मालिनी, शिखरिणी, पंचचामरम्, वसन्ततिलका ।
- 10 निबन्ध : नीचे लिखे विषयों पर संस्कृत में सरल निबन्ध (लगभग 100 शब्दों में)
सत्संगति, परोपकारः, आदर्श - छात्रः, मम प्रिय- पुस्तकम्, कश्चिद् महापुरुषः, कश्चिद् उत्सवः, समाचार पत्राणां लाभाः ।

अथवा

हिन्दी वाक्यों का संस्कृत में अनुवाद । (1 से 15 अभ्यास तक)

निर्धारित पाठ्य पुस्तक : संस्कृत सौरभम्- 12 पंजाब स्कूल शिक्षा बोर्ड द्वारा प्रकाशित

हरबल लाल

बारहवीं श्रेणी
प्रश्न- पत्र की रूपरेखा

समय : 3 घण्टे

कुल अंक : 70
सी. सी. ई : 30

भाग क (पाठ्य पुस्तक)

नोट : पहले दो प्रश्नों का उत्तर हिन्दी या पंजाबी या अंग्रेज़ी में दिया जा सकता है ।

- | | | |
|---|--|--------|
| 1 | तीन गद्यांश दिए जाएं जिनमें से दो का अनुवाद करने को कहा जाए । | 5x2=10 |
| 2 | तीन पद्य दिए जाएं जिनमें से दो का प्रसंग सहित अर्थ लिखने को कहा जाए। | 5x2=10 |
| 3 | पाठों के अभ्यासों में से चार प्रश्न हिन्दी में पूछे जाएं , जिनमें से दो का उत्तर हिन्दी में लिखने को कहा जाए । | 2x2=4 |
| 4 | संस्कृत में चार लघु प्रश्न दिए जाएं । जिनमें से दो का उत्तर संस्कृत में लिखने को कहा जाए। | 2x2=4 |
| 5 | पाठों के अभ्यासों में से छः संस्कृत शब्द दिए जाएं जिनमें से चार शब्दों का वाक्यों में प्रयोग करने को कहा जाए। | |

अथवा

4x1=4

- | | | |
|---|---|--------|
| | आठ व्यावहारिक संस्कृत शब्द दिए जाएं जिनमें से चार शब्दों का हिन्दी में अनुवाद करने को कहा जाए । | |
| 6 | यथानिर्दिष्ट परिवर्तन के छः वाक्य दिए जाएं जिनमें से चार वाक्यों में परिवर्तन करने को कहा जाए। | 4 x1=4 |
| 7 | प्राचीन लेखकों/कवियों के साहित्यिक परिचय से संबंधित पाँच प्रश्न पूछे जाएं जिनमें से चार का उत्तर लिखने को कहा जाए । | 4 x1=4 |

भाग=ख (व्याकरण भाग)

- | | | |
|---|--|--------|
| 8 | (क) पाठ्यक्रम में दिए गये शब्द रूपों में से छः शब्दों के रूप किसी एक विभक्ति के तीनों वचनों में पूछे जायें जिनमें से केवल चार शब्दों के रूप लिखने हों । | 4x1½=6 |
| | (ख) पाठ्यक्रम में दिए गये धातु रूपों में से छः धातुओं के रूप किसी एक लकार के एक पुरुष के तीनों वचनों में पूछे जायें जिनमें से केवल चार धातुओं के रूप लिखने हों । | 4x1½=6 |
| | (ग) कारक सम्बन्धी अशुद्धि वाले पाँच वाक्य दिये जायें जिनमें से तीन वाक्यों को शुद्ध करने को कहा जाये । | 3x1=3 |
| 9 | (क) पाठ्यक्रम में दिए गए समासों से संबंधित पाँच समस्त पद दिए जाएं जिनमें से तीन का विग्रह करने को कहा जाए । | |

अथवा

3x1=3

पाठ्यक्रम में दी गई धातुओं के साथ प्रत्यय लगाने के लिए पाँच धातुएं तथा प्रत्यय दिए जाएं जिनमें से तीन करने को कहा जाए ।

(ख) पाठ्यक्रम में दिए भेद रहित अलंकारों से संबंधित चार प्रश्न दिए जाएं जिनमें से दो शब्दालंकार तथा दो अर्थालंकार हों तो उचित है । चार अलंकारों में से केवल दो की परिभाषा तथा उदाहरण लिखने अपेक्षित हो । परिभाषा तथा उदाहरण का एक-एक अंक निश्चित है ।

अथवा

2x2=4

पाठ्यक्रम में निश्चित छंदों से संबंधित चार प्रश्न दिए जाएं जिनमें से दो मात्रिक

हरबंस लाल

तथा दो वर्णिक छंद हों तो उचित है । चार छंदों में से केवल दो की परिभाषा तथा उदाहरण लिखने अपेक्षित हो । परिभाषा तथा उदाहरण का एक-एक अंक निश्चित है ।

- 10 पाठ्यक्रम में निश्चित तीन निबंध देकर किसी एक विषय पर लगभग 100 शब्दों में निबंध लिखने को कहा जाए ।

अथवा

8

- 13 हिन्दी वाक्य दिए जाएं जिनमें से आठ वाक्यों का संस्कृत में अनुवाद करने को कहा जाए ।

हरबंस लाल

11. Arabic

Syllabus of Arabic

Class XII 2012-13

سفارش کردہ کتاب: منہاج العربیہ جزو رابع مرتبہ سید نبی حیدر آبادی

نصاب میں شامل دروس (1 سے 25 تک)

نظم (1 سے 5 تک)

وقت 3 گھنٹے

تحریری پرچہ نمبر: 70

داخلی تعین نمبر: 30

کل نمبر 100

ا۔ نوٹ: پہلا سوال لازمی ہے۔ دیئے گئے پانچ مختصر سوالات کے جوابات تحریر کیجئے۔ $2 \times 5 = 10$

مختصر سوالات تمام نصاب پر مشتمل ہوں گے۔

II۔ عربی سے اردو میں ترجمہ کرنا۔ (10)

III۔ عربی الفاظ کے معانی تحریر کرنا۔ (10)

IV۔ عربی اشعار کی تشریح کرنا۔ (نظموں کے اسباق سے) (10)

V۔ کسی ایک نظم کا مرکزی خیال بیان کرنا۔ (10)

VI۔ اردو سے عربی کا ترجمہ کرنا۔ (10)

VII۔ ماضی سے مضارع اور مضارع سے ماضی بنانا۔ (5)

VIII۔ عربی میں دس تک عدد لکھنا۔ (5)

اساتذہ طلباء پرچہ بنانے والے اور امتحان لینے والوں کے لئے خاص ہدایات:

- I- پہلا سوال لازمی ہے جو تمام نصاب پر مشتمل ہوگا اس میں پانچ مختصر سوالات پوچھے جائیں گے
ہر ایک سوال دو نمبر کا ہوگا۔
 $5 \times 2 = 10$
- II- نصابی کتاب میں سے دیئے گئے عربی کے دو پیرا گراف میں سے کسی ایک کا اردو میں ترجمہ کرنا۔ 10
- III- عربی کے دس الفاظ میں سے کسی پانچ کے معنی لکھنا، ہر ایک معنی کے دو نمبر ہوں گے۔ 10
- IV- نصابی کتاب میں دی گئی نظموں میں سے آٹھ اشعار دیئے جائیں گے ان میں سے کسی پانچ کا اردو میں ترجمہ کرنا ہوگا، ہر ایک شعر کے دو نمبر ہوں گے۔ 10
- V- کسی نظم کا مرکزی خیال بیان کرنا۔ 10
- VI- اردو میں دو پیرا گراف دیئے جائیں گے ان میں سے کسی ایک کا عربی میں ترجمہ کرنا ہوگا۔ 10
- VII- ماضی سے مضارع اور مضارع سے ماضی بنانے کیلئے پانچ نمبر ہوں گے۔ 5
- VIII- عربی میں دس تک عدد لکھنا ہوگا، ہر ایک عدد کیلئے آدھا نمبر ہوگا۔ 5

Syllabus of Persian

Class XII 2012-13

سفارش کردہ کتاب: کتاب فارسی تالیف دکتر زہرا خانلری، ادارہ ادبیات دہلی، قاسم جان اسٹریٹ، دہلی۔

نصاب میں شامل اسباق: اسباق نمبر 8، 21، 22، 23، 24، 25، 28، 30، 31، 32

وقت 3 گھنٹے

تحریری پرچہ نمبر: 70

داخلی تعین نمبر: 30

کل نمبر 100

ا۔ نوٹ: پہلا سوال لازمی ہے۔ دیئے گئے پانچ مختصر سوالات کے جوابات تحریر کیجئے۔ $2 \times 5 = 10$
مختصر سوالات تمام نصاب پر مشتمل ہوں گے۔

II۔ اسم حالیہ، اسم آلہ اور اسم ظرف کی مثالوں کے ساتھ تعریف کرنا۔ (10)

III۔ فارسی کا اردو میں ترجمہ کرنا۔ (نصابی اسباق میں سے) (15)

IV۔ اردو کا فارسی میں ترجمہ کرنا۔ (10)

V۔ دیئے گئے الفاظ سے خالی جگہ پُر کرنا۔ (5)

VI۔ فارسی الفاظ کے اردو/ہندی/پنجابی/انگریزی میں معانی بتانا۔ (10)

VII۔ اسم فاعل، اسم مفعول، حاصل مصدر مثالوں کے ساتھ واضح کریں۔ (10)

اساتذہ طلباء پرچہ بنانے والے اور امتحان لینے والوں کے لئے خاص ہدایات:

- I- پہلا سوال لازمی ہے جو تمام نصاب پر مشتمل ہوگا اس میں پانچ مختصر سوالات پوچھے جائیں گے
ہر ایک سوال دو نمبر کا ہوگا۔
5x2=10
- II- اسم حالیہ، اسم آلہ اور اسم ظرف کی مثالوں کے ساتھ تعریف کریں۔
10
- III- نصابی اسباق میں سے فارسی کے دو پیرا گراف دیئے جائیں گے ان میں سے
کسی ایک کا اردو میں ترجمہ کرنا ہوگا۔
15
- IV- اردو کے دو پیرا گراف میں سے کسی ایک کا فارسی میں ترجمہ کرنا۔
10
- V- دیئے گئے الفاظ سے کوئی پانچ خالی جگہ پُر کرنا ہر ایک کیلئے ایک نمبر ہوگا۔
5
- VI- فارسی الفاظ کا اردو، ہندی، پنجابی، انگریزی میں سے کسی ایک زبان میں معنی لکھنا۔
10
- VII- اسم فاعل، اسم مفعول، حاصل مصدر کو مثالوں کے ساتھ واضح کریں۔
10

Class-XII
13. FRENCH

Time: 3 Hours
Time : 9 minutes per Student

Theory: 50 Marks
Oral/Practical: 20Marks
CCE: 30 Marks
Total: 100 Marks

THEORY

1. Six (6) multiple-choice questions on general topic (civilization, grammar, vocabulary...) on lesson 1 to 13 of the text book to be asked and answered in French. Students are required to attempt all 10 questions. Each question will carry 1 mark. 6 Marks
2. Ten (10) Brief questions pertaining on lesson 1 to 13 of the text books to be asked and answered in French. Students are required to attempt any 5 questions. Each question will carry 1 mark. 10 Marks
3. Making of sentences in French with idiomatic expressions occurring in the text, 10 questions will be asked. Students are required to attempt any 8 questions. 8 Marks
4. Questions on applied grammar based on the prescribed text (Refer of pages 252-253) of the prescribed text. 8 Marks
5. Translation from English, Hindi, Punjabi or Urdu to French of an unseen passage of 10 short sentences. 5 Marks
6. Translation from French into English, Hindi, Punjabi or Urdu of an unseen passage of 10 short sentences. 5 Marks
7. Composition of an essay of about 200 words based on the vocabulary of text book. 8 Marks

ORAL

Note: A group of 20 students will be examined in a 3 hours session.

1. Dictation from the prescribed passage. 5 Marks
2. Reading a passage in French from the text and putting question on it and some general questions to be asked. 10 Marks
3. Self Introduction 5 Marks

Book Prescribed

"Le francais et la Vie II"

Author-G, MAUGER/BRUEZIERE, Publication Hachette

Course of Reading:

Lesson 1to 26

Class-XII
14. GERMAN

Time: 3 Hours
Time: 9 minutes per Student

Theory: 50 Marks
Oral/Practical: 20 Marks
CCE: 30 Marks
Total: 100 Marks

THEORY

Note: The question paper will be set in German.

1. 10 objective type questions (True/False, Jumbled words, Multiple Choice etc.) 10
2. Question of applied grammar based on the prescribed text book. 10
3. Comprehension of an unseen passage in German (Attempt One out of Two). 10
4. Official Letters of about 40 words with internal choice. 10
5. Write a short paragraph of about 100 words (attempt one out of three). 10

ORAL

Note: A Group of 20 students will be examined by the examiner in a three hours sessions.

1. Lesen - Reading of a passage or an extract from the text book. 10
2. Vorstellung (Self Introduction): For example: Name, age, profession, place of living, family. 10

Book Prescribed

"Tangram aktuell 2" (Kursbuch + Arbeitsbuch)" by Hueber. Niveau A2/ 1.

Class-XII
15. RUSSIAN

Time : 3 Hours
Time : 9 minutes per Student

Theory: 50 Marks
Oral/Practical: 20Marks
CCE: 30 Marks
Total:100 Marks

THEORY

Note: The question paper will be set in Russian.

1. 10 Objective type questions (True/False, One word answer, multiple choices etc.) 10
2. Grammar (Attempt 4 questions out of 7)
 - i. The numerals: their classification, declension -Pages 191- 199
 - ii. The verb, verb aspect, mood -Pages 207,213, 251, 257
 - iii. The participle -Pages 364-368
 - iv. The verbal adverb -Pages -386 -391 20
3. Translation of an unseen passage (Attempt 1 out of 2) or sentences (Attempt 15 out of 20) from Russian into Hindi/ English/ Punjabi/ Urdu. 10
4. Translation of an unseen passage (Attempt 1 out of 2) or sentences (Attempt 15 out of 20) from English/ Hindi/ Punjabi/ Urdu into Russian. 10

ORAL

1. Reading of a passage or a extract from the text book. 5
2. Topics will be given to the students at the time of exam (Oral). They will be divided into two groups and discuss about the given topic and speak. Give positive as well negative statements and at last come to some conclusion. 10
3. Self Introduction : For example : Name, age, profession, place of living, family. 5

Book Prescribed

1. "Basic Russian" by G. Mukherjee, (2nd edition, 1979) Published by Mac Millan & Co., New Delhi (Lesson 15 to 33)
'Russia'n' by I.M. Pulkina, E. Zakhova-Nekrasova "Russky Yazyk" available at People's Publishing House, Rani Jhansi, New Delhi, 2nd Edition (Pages Mentioned Above)

Book Recommended for Consultation

2. 'Rusi Vyakhya Ki Sankshipat Vyakhya' by I.M. Pulkina, Videshi Bhasha Prakashan Grih, Moscow.

Books Recommended for Additional reading

3. 'A Chrestomathy of Russian Literature' by C.N. Chakravati and N.S. Burlakoy, Jawarharlal Nehru University, New Delhi.
4. 'Russian as we speak it' by S. Skhavronina, Foreign Languages publishing Hõuse Moscow.

Note:The question paper should not include words or constructions which have not been covered in the prescribed texts. However, if it absolutely necessary to give new words or construction, then they should be given with translation into English/Punjabi/Hindi/Urdu. There should not be in all given five new words/constructions in one question paper.

Class-XII
16. KOREAN

Time: 3 hrs
Time: 9 min. per student

Theory: 50 Marks
Oral/Practical: 20 Marks
C.C.E.: 30 Marks
Total: 100 Marks

THEORY

Note: The question paper will be set in Korean.

- | | |
|---|----|
| 1. Question of applied grammar based on the prescribed text book. | 10 |
| 2. Comprehension of unseen passage in Korean. | 10 |
| 3. Translation of an unseen passage or sentences from Korean into English. | 10 |
| 4. Translation of an unseen passage or sentences from English into Korean. | 10 |
| 5. Composition of an essay of about 200 words based on the vocabulary of text Book. | 10 |

ORAL

Note: A group of 20 students will be examined in a 3 hours session.

- | | |
|---|----|
| 1. Reading of a passage from the text book. | 10 |
| 2. Simple conversation. (Question regarding name, age, family, school or daily routine may be asked). | 10 |

Text book prescribed

Korean II By Sang Oak Lee
Publication HOLLIM

Class-XII
17. HISTORY

Time : 3 hrs.

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. The question paper will be cover whole of the prescribed syllabus.
 2. All questions will be compulsory.
 3. The question paper will comprise of 23 questions in total.
 4. The question paper will have 5 sections A, B, C, D & E.
 5. The question paper will carry
 - a) Objective type questions
 - b) Very short answer type questions
 - c) Short answer type questions
 - d) Essay type questions
 - e) Map
- i) Objective Type Questions:** This type may include questions with one word to one sentence answer/ fill in the blank/ true or false/ multiple choice type questions.
- ii) Very Short Type Question:** This type will include questions with 20 to 25 words answer.
- iii) Short Answer Type Question:** This type will include question with 35 to 40 words answer.
- iv) Essay Type Question:** This type will include question with 250-300 words answer. There will be 100% internal choice in these questions.
- v) Map Questions:** There will be a choice for student to select one topic for the Map which he/she has to explain and also to fill the relevant events in the Map attached along with answer sheet. If Map is not attached it can be asked for to the exam Supervisor/ Superintendent of the exam centre.

Unit wise marks distribution

S. No.	Syllabus	Chapter	Section A 1 Mark question	Section B 3 Mark question	Section C 5 Marks question	Section D 10 Marks question	Section E (Map) 4 + 7 =11 marks	Total
1	Part A & B objective type question	1 to 22 (5 Q. from A 6 Q. from B)	1 mark question from every two chapter (11×1=11)					
2	Part A & B very short answer type question	(1, 2, 3) = 1 (4, 5, 6) = 1 (7, 8, 9,10) = 1 (11, 12, 13, 14) = 1 (15, 16, 17, 18) = 1 (19,20,21,22) = 1 (3 q. from each part i.e. A &B)		1 1 1 1 1 1 6×3=18				
3	Part A & B short answer type question	(1-5) = 1 (6-10) = 1 (11-16) = 1 (17-22) = 1 (two questions from each part)			1 1 1 1 4×5=20			

4	Part A & B essay type (to attempt one question)	Part A-1 Part B-1 (with 100% internal choice)				1 1×10=10		
5	Part C (Choice from these situations)	From chapter - Battles of Guru - Gobind Singh - Imp. battles of - Banda Bahadur - Ranjit Singh's - Kingdom - First Anglo Sikhs - War - Second Anglo - Sikh War					1 4 marks of explanation 7 marks of Mapping (4+7=11)	
Total Marks			11	18	20	10	11	70

Syllabus

Part – A

1. Physical features of the Punjab and their influence on its history.
2. Sources of the History of the Punjab.
3. Political, Social and Economic conditions of the Punjab in the beginning of the 16th Century.
4. Guru Nanak Dev Ji's life and his teachings.
5. Development of Sikhism under Guru Angad Dev Ji, Guru Amar Das Ji and Guru Ram Das Ji.
6. Guru Arjan Dev Ji and his martyrdom.
7. Guru Hargobind Ji and transformation of Sikhism.
8. Guru Teg Bahadur Ji and his martyrdom.
9. Guru Gobind Singh Ji, the foundation of Khalsa, his battles and his personality.
10. Banda Bahadur.

Part-B

11. Abdus Samad Khan, Zakaria Khan and Mir Mannu, their relations with the Sikhs.
12. Rise of the Dal Khalsa and its mode of fighting.
13. Social and economic conditions of the Punjab under the Mughals.
14. Invasions of Ahmed Shah Abdali and disintegration of Mughal rule in the Punjab.
15. Origin and growth of the Sikh Misls and their nature of organization.
16. Ranjit Singh's career and conquests.
17. Anglo-Sikh Relations (1800-1839).
18. Ranjit Singh's relations with Afganistan and his N.W.F. Policy.
19. Civil and Military administration of Ranjit Singh.
20. Character and Personality of Ranjit Singh.
21. First Anglo-Sikh War – causes and results.
22. Second Anglo-Sikh War – causes and results, annexation of the Punjab.

Part-C

In this part there will be one question on the map. The question on the map will be compulsory. The question of map will be set out of the following:

23. Battles of Guru Gobind Singh Ji.
24. Important Battles of Banda Bahadur.
25. Ranjit Singh's Kingdom.
26. First Anglo-Sikh War.
27. Second Anglo-Sikh War.

Class-XII
18. ECONOMICS
(HUMANITIES GROUP)

Time : 3 Hours

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. The Question Paper will cover whole of the prescribed syllabus.
2. All Questions will be compulsory.
3. The questions paper will comprise of 15 questions in total.
4. The question paper will have 3 Sections A, B & C.

SECTION A

This section will consist of Q. No. 1 which will be objective type consisting of 12 sub parts (i.e. 6 questions from Part A and 6 questions from Part B of syllabus). Each sub part carry 1 mark. Objective type questions may include questions with one word to one sentence answer/fill in the blank/true or false/multiple choice type questions.

SECTION B

This section will consist of 10 short answer type questions (i.e. 4 questions from Part A and 6 questions from Part B of syllabus) carrying 3 marks each. Answer of each question should be given in 50-60 words. Out of 4 questions in Part-A, 1 question will be numerical. Out of 6 questions from Part-B one question will be numerical.

SECTION C

This section will consist of 4 long answer type questions (i.e. 2 questions from Part A and 2 questions from Part B of syllabus) with internal choice carrying 7 marks each. Answer of each question should be given in 200-250 words. Out of 2 questions from Part-B one question will be numerical.

Detail of questions set from each unit

Syllabus	Units	Sec A 1 Mark Questions	Sec B 3 Marks Questions	Sec C 7 Marks Questions	Total Marks
PART - A Micro Economics	1	1	1	1 Q from	32
	2	2	1	Unit 1 & 2	
	3	2	1	1 Q from	
	4	1	1	Unit 3 & 4	
PART – B Macro Economics	5	1	1	1 Q from	38
	6	1	2	Unit 5 & 6	
	7	1	1	1 Q from	
	8	2	1	Unit 7, 8 & 9	
	9	1	1		
Total	9	12	10	4	70

SYLLABUS

PART-A (INTRODUCTORY MICRO ECONOMICS)

Unit-1 INTRODUCTION

Micro Economics: Meaning; Difference between Micro and Macro Economics, Central Problems of an Economy, Production Possibility Curve and Opportunity Cost.

Unit-2 CONSUMER BEHAVIOUR AND DEMAND

- i. Consumer's Equilibrium:- Meaning, Attainment of equilibrium through Utility Approach (one and two commodity case).
- ii. Theory of Demand: Meaning of Demand, Types of Demand: Individual and Market Demand, Determinants of Demand, Demand Schedule, Demand Curve, Movement along and shift in Demand Curve.
- iii. Price Elasticity of Demand: Measurement of Price Elasticity of Demand- Percentage, Total expenditure and Geometric method.

Unit-3 PRODUCER BEHAVIOUR AND SUPPLY

- i. Production-Meaning, Concept of Production, Function: Returns to Factor and Returns to Scale.
- ii. Theory of Supply: Meaning of Supply, Types of Supply: Individual and Market Supply, Determinants of Supply, Supply Schedule, Supply Curve, Law of Supply, Movement along and shifts in supply curve, Price Elasticity of Supply, Measurement of Price Elasticity of Supply; Percentage and geometric method.
- iii. Concepts of Costs: Short Run Cost Curves; Fixed and Variable Costs, Total, Average and Marginal Costs.

Concepts of Revenue: Total, Average and Marginal Revenue and their relationship.
- iv. Producer's Equilibrium with the help of MC and MR.

Unit-4 FORMS OF MARKET AND PRICE DETERMINATION

- i. Forms of Market: Perfect Competition, Monopoly, Monopolistic Competition- Their Meaning and Features.
- ii. Price Determination under Perfect Competition- Equilibrium Price, Effect of shifts in Demand and Supply.

PART-B (INTRODUCTORY MACRO ECONOMICS)

Unit-5 NATIONAL INCOME AND RELATED AGGREGATE

- i. Basic Concept and Measurement of National Income (introduction only)
- ii. Macro Economics: Meaning, Circular flow of Income, Concepts of GDP, GNP, NDP, NNP (at market price and factor cost), National Disposable Income (Gross & Net); Private Income, Personal Income and Personal Disposable Income.
- iii. Measurement of National Income-Value Added Method, Income Method & Expenditure Method

Unit-6 DETERMINATION OF INCOME AND EMPLOYMENT.

- i. Aggregate Demand, Aggregate Supply and their Components.
- ii. Propensity to Consume and Propensity to Save (Average and marginal).
- iii. Meaning of Involuntary-Unemployment, Concept of Full Employment.
- iv. Determination of Equilibrium level of Income and Employment-Two sector model.
- v. Concept of Investment Multiplier and its working.
- vi. Problems of excess and deficient Demand. Measures to correct excess and deficient Demand, Availability of Credit, Change in Government Spending.

Unit-7 MONEY AND BANKING

- i. Money: Meaning, Evolution and Functions.
- ii. Central Bank: Meaning and Functions.
- iii. Commercial Banks: Meaning and Functions.
- iv. Recent significant reforms and issues in Indian Banking System; Privatisation and Modernization.

Unit-8 GOVERNMENT BUDGET AND THE ECONOMY

- i. Government Budget. Meaning and its Components, Objectives of Government Budget.
- ii. Budget Receipts – Revenue Receipts and Capital Receipts.
- iii. Budget Expenditure-Revenue and Capital Expenditure, Plan and Non-Plan Expenditure and Development and Non-Development Expenditure.
- iv. Balance Budget, Surplus Budget and Deficit Budget: Their Meaning and Implications; Types of Deficit Budget-Revenue Deficit, Fiscal Deficit and Primary Deficit(meaning and implications); Measures to contain different Deficits. Downsizing the role of Government: Meaning and Implications.

Unit-9 BALANCE OF TRADE AND BALANCE OF PAYMENTS.

- i. Foreign Exchange Rate: Meaning, Fixed and Flexible Exchange Rate System-Meaning, Merits and Demerits.
- ii. Determination of Flexible Exchange Rate System through Demand and Supply.
- iii. Balance of Payment Accounts; Meaning and Components.
- iv. A brief analysis about recent exchange rate issue.

Class-XII
19. Mathematics

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

Time: 3:00 hrs

1. All Questions are Compulsory.
2. Q. 1 will consist of eight parts and each part will carry 1 Mark.
3. Q. 2 to Q. 15 each will be of 3 Marks.
4. Q. 16 to Q. 19 i.e. four questions each will be of 5 marks.
5. There will be no overall choice. There will be an internal choice in any four questions of 3 marks each and two questions of 5 marks each (Total of 6 internal choices).
6. Use of Calculator is not allowed.

Sr. No	Topic	Q. Carrying 1-Marks	Q. Carrying 3-Marks	Q. Carrying 5-Marks	Total Marks
1.	Relations & Functions	-	1	-	03
2.	Inverse Trigonometric Functions	1	1	-	04
3. 4.	Matrices Determinants	1	1	1	09
5.	Continuity & Differentiability	1	2	-	07
6.	Applications of Derivatives	-	1	1	08
7.	Integrals	2	2	-	08
8.	Applications of the Integrals	-	1	-	03
9.	Differential Equations	1	2	-	07
10.	Vectors	1	1	-	04
11.	Three-dimensional Geometry	1	-	1	06
12.	Linear Programming	-	-	1	05
13.	Probability	-	2	-	06
Total		8	14	4	70

- 1 Relations and Functions:**
Types of relations: Reflexive, symmetric, transitive and equivalence relations.
One to one and onto functions, composite functions, inverse of a function.
Binary operations.
- 2 Inverse Trigonometric Functions:**
Definition, Range, Domain, Principal value branches. Graphs of inverse trigonometric functions. Elementary properties of inverse trigonometric functions.
- 3 Matrices:**
Concept, notation, order, equality, types of matrices, zero matrix, transpose of a matrix, symmetric and skew symmetric matrices. Addition, multiplication and scalar multiplication of matrices, simple properties of addition, multiplication

and scalar multiplication. Non-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Concept of elementary row and column operations. Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).

4 **Determinants:**

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

5 **Continuity and Differentiability:**

Continuity and Differentiability, derivative of composite functions, chain rule, derivative of inverse trigonometric functions, derivative of implicit function. Concepts of exponential and logarithmic functions. Derivatives of $\log_e x$ and e^x . Logarithmic differentiation. Derivative of functions expressed in parametric forms. Second order derivatives. Rolle's and Lagrange's Mean Value Theorems (without proof) and their geometric interpretations.

6 **Applications of Derivatives**

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

7 **Integrals:**

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, only simple integrals of the type:

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

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

$$\int \sqrt{ax^2 + bx + c} dx \text{ and } \int (px + q)\sqrt{ax^2 + bx + c} dx$$

to be evaluated.

Definite integrals as a limit of a sum. Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals. .

8 **Applications of the Integrals:**

Applications in finding the area under simple curves, especially lines, areas of circles/parabolas/ellipses (in standard form only), area between the two above said curves (the region should be clearly identifiable).

9 **Differential Equations:**

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

$$\frac{dy}{dx} + Py = Q$$

where P and Q are functions of x or constant.

$$\frac{dx}{dy} + Px = Q$$

where P and Q are functions of y or constant

10 **Vectors:**

Vectors and scalars, magnitude and direction of a vector. Direction cosines/ratios of vectors. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Scalar (dot) product of vectors, projection of a vector on a line. Vector (cross) product of vectors, scalar triple product.

11 **Three-dimensional Geometry:**

Direction cosines/ ratios of a line joining two points. Cartesian and vector equation of a line, coplanar and skew lines, shortest distance between two lines. Cartesian and vector equation of a plane. Angle between (i) two lines, (ii) two planes, (iii) a line and a plane. Distance of a point from a plane.

12 **Linear Programming:**

Introduction, definition of related terminology such as constraints, objectives function, optimization, different types of linear programming (L.P.) problems, mathematical formulation of L.P problems, graphical method of solution for problems in two variables, feasible and infeasible regions, feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints)

13 **Probability:**

Multiplication theorem on probability. Conditional probability, independent events, total probability, Baye's theorem, Random variable and its probability distribution, mean and variance of haphazard variable. Repeated independent (Bernoulli) trials and Binomial distribution.

**20. BUSINESS ORGANISATION & MANAGEMENT
(HUMANITIES GROUP)**

Time: 3 Hours

Theory: 70 marks

CCE: 30 marks

Total: 100 marks

Structure of Question Paper

1. The question paper will cover whole of the syllabus.
2. 11 Questions will be set in the question paper.
3. All units of the syllabus should be given adequate representation in the question paper.
4. Question No. 1 consists of 8 sub parts carrying 1 mark each. Answer of each part should be given in 1-15 words. Objective type questions may include questions with one word or one sentence answer/fill in the blanks/multiple choice type questions.
5. Question No. 2 to 8 will carry 5 marks each. Answer of each question should be given in 15-20 lines.
6. Question No. 9 to 11 will carry 9 marks each with internal choice. Answer of each question should be given in 3-5 pages.

Detail of questions set from each unit

Unit No.	Name of the unit	1 mark question	5 marks question	9 marks question
1	Nature & Significance of Management			
2	Principles of Management	1	1	1
3	Business environment			
4	Planning	1	1	1
5	Organization			
6	Staffing	1	1	1
7	Directing	1		
8	Coordination			
9	Controlling	1	1	1
10	Business finance			
11	Financial Markets	1	1	1
12	Marketing	1	1	
13	Consumer Protection			
14	Entrepreneurship Development	1	1	1

SYLLABUS

PRINCIPLES AND FUNCTIONS OF MANAGEMENT

UNIT-1: NATURE AND SIGNIFICANCE OF MANAGEMENT.

- (a) Management Concept, Objectives and Importance.
- (b) Management as an Activity, Process, Discipline and as a Group.
- (c) Nature of Management as a Science, as an Art and as a Profession.
- (d) Management and Administration Comparison.
- (e) Level of Management-Top, Middle & Supervisory.
- (f) Management Function-Planning, Organising, Staffing, Directing Coordinating and Controlling.

UNIT-2: PRINCIPLES OF MANAGEMENT

- (a) Principles of Management: Meaning, Nature & Significance.
- (b) Fayol's Principles of Management.
- (c) Taylor's Scientific Management-Principles & Techniques.

UNIT-3: BUSINESS ENVIRONMENT

- (a) Business Environment - Meaning & Importance.
- (b) Dimensions of Business Environment-Political, Economic, Social Legal and Technological.
- (c) Economic Environment in India, Impact of Govt. Policy changes on business & industry with Reference to Liberalization, Privatization and Globalization (since 1991).

UNIT-4: PLANNING

- (a) Meaning, Features, Process, Importance & Limitations.
- (b) Goals, Objectives, Policy, Procedures, Strategy, Methods, Rules, Budgets and Programmes-Meaning and Distinction.

UNIT-5: ORGANISATION

- (a) Meaning and Importance
- (b) Process of Organizing
- (c) Types of Organization: Formal, Informal, Line Organization, Line & staff and Functional Organization.
- (d) Delegation: Meaning, Elements and Importance, Barriers in the way of delegation, Step to make delegation effective.
- (e) Decentralization: Meaning and Importance
- (f) Difference between Centralization and Decentralization.
- (g) Difference between Delegation and Decentralization.

UNIT-6: STAFFING

- (a) Staffing: Meaning, Need and Importance
- (b) Steps in Staffing Process:
 - (i) Recruitment: Meaning and Sources.
 - (ii) Selection: Meaning and Process.
 - (iii) Training & Development: Meaning, Need, Types and Methods.
- (c) Methods of Wage Payment: Time Rate & Price Rate.
- (d) Types of Compensation and Incentives: Monetary & Non Monetary.

UNIT-7: DIRECTING

- (a) Directing: Meaning and Importance.
- (b) Elements of Direction:
 - (i) Supervision: Meaning and Importance
 - (ii) Motivation: Meaning and Importance, Maslow's hierarchy of needs: Financial & Non-Financial Incentives.
 - (iii) Leadership: Meaning, Importance, Quality of a good leader.
 - (iv) Communication: Meaning and Importance, Types of Communication and Barriers to Effective Communication.

UNIT-8: COORDINATION

Coordination: Meaning, Nature & Importance.

UNIT-9: CONTROLLING

- (a) Controlling: Meaning and Importance.
- (b) Relationship between Planning and Controlling.
- (c) Steps in the process of Control.

BUSINESS FINANCE AND MARKETING

UNIT-10: BUSINESS FINANCE

- (a) Meaning and Objectives of Finance Functions, Profit Maximization vs Wealth Maximization.
- (b) Financial Planning: Meaning & Importance
- (c) Capital Structure: Meaning & Factors
- (d) Working Capital: Meaning, Importance, Types & Factors affecting its requirements.

UNIT-11: FINANCIAL MARKETS

- (a) Concept of Financial Market: Money Market-Nature, Instruments.
- (b) Capital Market: Nature, and Types-Primary and Secondary Market.
- (c) Distinction between Capital Market and Money Markets.
- (d) Stock Exchange; Meaning, Functions, NSEI, OTCI, Trading Procedure.
- (e) Securities and Exchange Board of India (SEBI): Objectives and Functions.

UNIT-12: MARKETING

- (a) Marketing: Meaning, Function & Role.
- (b) Distinction between Marketing & Selling.
- (c) Marketing Mix: Concept & Elements-
 - (i) Product: Nature, Classification, Branding, Labeling and Packaging.
 - (ii) Physical Distribution: Meaning, Role, Channels of Distribution:-
Meaning, Types, Factors determining choice of channel.
 - (iii) Promotion: Meaning and Role, Promotion Mix, Role of Advertising and Personal Selling, Objectives of Advertising.
 - (iv) Price: Factors influencing Pricing.

UNIT-13: CONSUMER PROTECTION

- (a) Importance of Consumer Protection,
- (b) Consumer Rights.
- (c) Consumer Responsibilities.
- (d) Ways and Means of Consumer Protection: Consumer Awareness and legal redressal with special reference to Consumer Protection Act 1986.
- (e) Role of Consumer Organization and NGO's.

UNIT-14 ENTREPRENEURSHIP DEVELOPMENT

- (a) Entrepreneurship: Concept, Characteristics, Needs and Functions.
- (b) Process of Entrepreneurship Development.
- (c) Entrepreneurial Values, Attitudes and Motivation: Meaning & Concept.

Class-XII
21. BOOK KEEPING AND ACCOUNTANCY
(Humanities Group)

Time: 3 Hours

Theory: 70 marks
CCE: 30 marks
Total: 100 marks

Structure of Question Paper

1. The question paper will cover whole of the syllabus.
2. 11 Questions will be set in the question paper.
3. All units of the syllabus should be given adequate representation in the question paper.
4. Question No. 1 will be objective type consisting of 8 sub parts carrying 1 mark each. Answer of each part should be given in 1-15 words. Objective type questions may include questions with one word or one sentence answer/fill in the blanks/multiple choice questions.
5. Question No. 2 to 8 (of which three will be of numerical nature and four will be of theoretical nature) will carry 5 marks each. Answer of each theoretical question should be given in 15-20 lines.
6. Question No. 9 to 11 will carry 9 marks each with internal choice. Of these, any two questions will have internal choice between theoretical and numerical questions while any one of these three will have only numerical question internal choice. Answer of each theoretical question should be given in 3-5 pages.
7. There is no word, line or page limit for numerical questions.
8. The use of non-programmable simple calculator is allowed.

Detail of questions set from each unit

Unit No.	Name of the unit	1 mark question	5 mark question	9 marks question
1.	Accounting for not for profit Organisation	1	1	1
2.	Accounting for partnership	1	1	1
3.	Reconstitution or partnership (1,2 & 3)	1	1	
3.	Reconstitution of partnership (4 & 5)	1	1	1
4.	Dissolution of partnership firm	1		
5.	Accounting for share & debenture capital	1	1	1
6.	Analysis of financial statements	1	1	1
7.	Statement of changes in financial position	1	1	1

SYLLABUS

UNIT 1: ACCOUNTING FOR NOT-FOR-PROFIT ORGANIZATION.

1. Meaning, Basic Concepts
2. Receipts and Payments : Meaning and Concept of Fund Based and Non Fund Based Accounting
3. Preparation of Income and Expenditure Account and Balance Sheet from Receipt and Payment Account with additional information.

UNIT 2 : ACCOUNTING FOR PARTNERSHIP

1. Nature of Partnership Firm, Partnership Deed (Meaning and Importance)

2. Final Accounts of Partnership: Fixed v/s Fluctuating Capital, Division of Profit among Partners (excluding guarantee and past adjustments). Preparation of Profit and Loss Appropriation Account

UNIT 3: RECONSTITUTION OF PARTNERSHIP

1. Change in Profit Sharing Ratio among the existing Partners- Sacrificing Ratio and Gaining Ratio
2. Accounting for Revaluation of Assets and Liabilities and Distribution of Reserves and Accumulated Profits
3. Goodwill: Meaning, Nature, Factors affecting and Methods of Valuation. Average Profits, Super Profits and Capitalization Methods
4. Admission of a Partner:- Effect of Admission of Partner, Change in Profit Sharing Ratio, Accounting Treatment of Goodwill (as per accounting standard 10). Revaluation of Assets and Liabilities, Reserves (Accumulated profits) and Adjustment of Capitals
5. Retirement/Death of a Partner: Change in Profit Sharing Ratio, Accounting Treatment of Goodwill, Revaluation of Assets and Liabilities, Treatment of Accumulated Profits (Reserve), Adjustment of continuing P.capitals, Payment to Retiring Partner/ Deceased Partners.

UNIT 4 : DISSOLUTION OF PARTNERSHIP FIRM

Meaning and Various Modes of Dissolution of Partnership Firm, Settlement of Accounts. Preparation of Realization Account and Related Accounts (excluding Piece Meal Distribution, Sale to a Company and Insolvency of a Partner).

UNIT-5: ACCOUNTING FOR SHARE CAPITAL AND DEBENTURES

1. Share Capital: Meaning, Nature and Types
2. Accounting for Share Capital: Issue and Allotment of Equity and Prefer Shares, Over Subscription and under Subscription, Issue at Par Securities Premium and at Discount, Calls in Advance, Calls in Arrears, Issue of Shares for Consideration other than cash.
3. Forfeiture of Shares: - Accounting Treatment, Reissue of Forfeited Shares.
4. Presentation of Share and Debenture, Capital in Company's Balance Sheet
5. Issue of Debentures:- Meaning, Types of Debentures, Issue at Par, Premium and Discount, Issue of Debentures for Consideration other than cash, Debenture Issues as Collateral Security.
6. Redemption of Debentures: - Out of proceeds of fresh issue, Accumulated Profits and Sinking Fund.

UNIT 6: ANALYSIS OF FINANCIAL STATEMENTS

1. Financial Statement of Company: - Balance Sheet of a Company in the prescribed form with major heading only (schedule VI)
2. Financial Analysis: - Meaning, Significance and Purpose, Limitations.

3. Tools for Financial Analysis: - Comparative statements, Common Size Statement and Trend Analysis.
4. Accounting Ratio: - Meaning, Objectives and Types of Ratios:
 - a. Liquidity Ratio: - Current Ratio, Liquidity Ratio.
 - b. Solvency Ratio: - Debt to Equity, Total Assets to Debt, Proprietary Ratio.
 - c. Activity Ratio: Inventory Turnover, Debtors Turnover, Creditors Turnover, Working Capital Turnover, Fixed Assets Turnover, Currents Assets Turnover.
 - d. Profitability Ratio: - Gross Profit, Operating Profit Ratio, Net Profit Ratio, Return on Investment, Earning Per Share Dividend Per Share, Price Earning Ratio.

UNIT 7: STATEMENT OF CHANGES IN FINANCIAL POSITION

Cash Flow Statement: - Meaning and Objectives, Preparation, Adjustments related to Depreciation, Dividend, Tax, Purchase and Sale of non current assets (as per revised standard issued by ICAI)

Class-XII
22. POLITICAL SCIENCE

Time : 3 hrs.

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. The question paper will cover whole of the prescribed syllabus.
2. All questions will be compulsory.
3. The question paper will comprise of 24 questions in total.
4. The question paper will have 3 sections A, B, & C.

(A) Objective type questions:- This part will be containing objective type questions which will be 10 (Ten) in number. Answer of these questions will may include question with one word to one sentence answer/fill in the blanks/true or false/multiple choice type questions. 10 X 1=10

(B) Short Answer type questions:- This part will contain total 12 questions from which candidate is to attempt any 10 questions. Each question will carry 4 marks. Answer to these questions are required in 50-60 words. 10 X 4=40

(C) Essay type questions:- This part will contain total 4 questions from which candidate is to attempt any 2 question. Each question will carry 10 marks. There will be total internal choice for these questions. Answer to these questions will be needed in 250 to 300 words or on 3-4 pages. 2 X 10=20

SYLLABUS
Part-A Political Theory

Unit I: Political System

- (i) Meaning, Characteristics and functions.
- (ii) Difference between state and political system.
- (iii) Comparative Politics: Meaning and Nature.
- (iv) Modern concepts:
 - a) Political Culture: Meaning and Characteristics.
 - b) Political Socialisation: Meaning and Agents.

Unit II: Some major contemporary Political Theories

- (i) Liberalism
- (ii) Marxism
- (iii) Political ideas of Mahatama Gandhi

Unit III: Bureaucracy (Civil Services)

- (i) Meaning and importance
- (ii) Recruitment
- (iii) Role and functions
- (iv) Distinction between Political Executive and Permanent Executive and their respective roles

Unit IV: Electorate

- (i) Adult Suffrage
- (ii) Systems of Representation : Direct and Indirect Elections

Unit V: Public opinion

- (i) Role and importance of Public Opinion in a Democratic Polity.
- (ii) Agencies for the formulation and expression of Public Opinion

Unit VI: Party System

- (i) Political parties – their functions and importance
- (ii) Basis of formation of Political Parties
- (iii) Types of Party System
- (iv) The Role of Opposition

Unit VII: Interest and Pressure Groups

- (i) Interest Groups and Pressure Groups – their nature and functions

Part –B Indian Political System

Unit VIII: Indian Democracy

- (i) Parliamentary Model.
- (ii) Socio-Economic Factors Conditioning Indian Democracy
- (iii) Problems and challenges to Indian Democracy
 - a) Inequality, Social and Economic
 - b) Illiteracy
 - c) Regionalism
 - d) Communalism, Casteism, Separatism and Political Violence

Unit IX: Democracy at Grass root

- (i) Concept of Panchayati Raj
- (ii) Structure and Working of Panchayati Raj
- (iii) Panchayati Raj – Some problems
- (iv) Local Bodies in Urban Areas

Unit X: Party System in India

- (i) Nature of Party System in India
- (ii) Study of major national political parties – their programmes and policies
- (iii) Problems facing the Indian Party System

Unit XI: Electoral System

- (i) Adult Franchise and people's participation
- (ii) Voting behaviour – meaning and determinants
- (iii) Election Commission and Election Procedure

Unit XII: National Integration

- (i) Problems of National Integration
- (ii) Steps taken to promote National Integration

Unit XIII: Foreign Policy of India

- (ii) Determinants of Foreign Policy
- (iii) Basic principles of Foreign Policy
- (iv) India and the United Nations, India and SAARC

Unit XIV: India and the World

- (i) India's relations with her Neighbours : Nepal, Sri Lanka, China, Bangla Desh and Pakistan
- (ii) India's relation with U.S.A. and Russia
- (iii) India's approach to major world issues: Human Rights, Disarmament and Globalization.

Class-XII
23. SOCIOLOGY

Time: 3 Hours

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. There will be 22 questions in all. All questions will be compulsory.
2. Question No. 1 to 10 will carry 1 mark each. Answer to each question should be in about 1- 15 words. 10×1= 10
3. Question No. 11 to 15 will carry 3 marks each. Answer to each question should be in about 30 - 35 words 5×3= 15
4. Question No. 16 to 20 will carry 5 marks each with 100% internal choice. Answer to each question should be in about 75-85 words. 5×5= 25
5. Question No. 21 & 22 will carry 10 marks each. Answer to each question should be in about 250 - 300 words. Three will be 100% internal choice in these questions. The paper setter should not set more than one such question from one chapter. 2×10= 20

Unit-wise Weightage to Content

Unit No.	Questions carrying 1 Mark	Questions carrying 3 Marks	Questions carrying 5 Marks	Questions carrying 10 Marks	Total
1, 2, 3,	6	3	4	1	44 Marks
4,5	4	2	1	1	26 Marks
Total questions	10	5	5	2	22 Questions
Total marks	10	15	25	20	70 Marks

SYLLABUS

Unit : I Traditional basis of social organization.

Varna, Asharam, Pursharthas

Unit : II Caste System.

Definition, Features, Structure, Functions, Changes.

Unit : III Marriage

Meaning, Forms of traditional Hindu marriage, classification-Monogamy, Polygamy- polygyny and polyandry.

Unit : IV Family.

Meaning, Features, Functions, Types, Nuclear and joint, changes in family.

Unit : V Religion

Features and social functions

Class-XII
24. PUBLIC ADMINISTRATION
(HUMANITIES GROUP)

TIME: 3 Hours

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. The Question Paper will cover whole of the prescribed syllabus.
2. All Questions will be compulsory.
3. 13 Questions will be set in the Question Paper.
4. Question No.1 will consist of 10 sub parts of 1 mark each. Answer of each question should be given in 1-15 words. Objective type questions may include questions with one word to one sentence answer/fill in the blank/true or false/multiple choice type questions.
5. Question No. 2 to 11 will carry 4 marks each. The answer of each question should be given in 75-80 words.
6. Question No.12 and 13 each with internal choice will carry 10 marks each. The answer of each question should be given in 250-300 words.

Detail of questions set from each unit

Syllabus	1 Mark Questions	4 Marks Questions	10 Marks Questions	Total Marks
Unit I & II	3	3	1	25
Unit III & IV	2	2		10
Unit V & VI	3	3	1	25
Unit VII & VIII	2	2		10
Total	10 Marks	40 Marks	20 Marks	70 Marks

SYLLABUS

UNIT -1 Personnel Administration

- a) Recruitment and Training: UPSC: Its Organization and Role.
- b) Promotion and Position Classification.
- c) Conduct and Discipline.
- d) Morale.
- e) Joint Consultative Machinery: Employer-Employee Relations

UNIT -II Financial Administration

- a) Budget-Meaning, Principles and Importance. The budget as an instrument of Public Policy. The budgetary process.
- b) Ministry of Finance -Its Organization and Working Legislative Control Finance.
- c) Public Accounts Committee at the central level.
- d) Estimates Committee at the central level.
- e) Performance Budgeting.

UNIT -III Audit and Its Role

- a) Comptroller and Auditor General of India.

- b) Accounting: Its Importance and Organization.

UNIT -IV Selected Approaches

- a) Scientific Management.
- b) Human Relations Approach.

UNIT - V Functional Aspects of Administration

- a) Communication.
- b) Supervision.
- c) Coordination.
- d) Centralization.
- e) Decentralization.
- f) Field Headquarter Relationship.

UNIT -VI

- a) Leadership.
- b) Policy Formation.
- c) Planning and Decision Making.

UNIT -VII Administration Improvement

- a) O & M (Organization and Methods).
- b) Administrative Reforms.

UNIT -VIII Administrative Law

- a) Administrative Law.
- b) Rule of Law.
- c) Delegated Legislation
- d) Administrative Tribunals -Role, Structure and Working.

Class-XII
25. RELIGION

Time : 3 Hrs.

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. The question paper will comprise of 23 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of four parts with each part representing all sections and all religions.

Part-I will consist of 11 objective type questions (Q. no. 1 to 11) carrying one mark each. Objective type questions may include questions with one word to one sentence answer or fill in the blank or true/false or multiple choice type questions. 11×1=11

Part-II will consists of 5 short answer type -I questions (Q. no. 12 to 16) carrying 3 marks each. Answer of each question should be given within 50-60 words. 5×3=15

Part-III will consist of four short answer type-II questions (Q. no. 17 to 20) carrying 5 marks each. Answer of each question should be given within 70-80 words. 4×5=20

Part-IV will consist of three long answer type questions with internal choice (Q. no. 21 to 23) carrying 8 marks each. Answer of each question should be given in approximately 2 ½ pages of the answer sheet. 3×8=24

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of question	Marks per question	No. of questions	Section wise Distribution of questions			Total Marks
			Section A	Section B	Section C	
Objective type	1 Mark	11	3	4	4	11
Short answer type-I	3 Marks	05	2	1	2	15
Short answer type-II	5 Marks	04	1	2	1	20
Long answer type	8 Marks	03	1	1	1	24
Total		23	7	8	8	70

SYLLABUS

SECTION A: (HISTORICAL)

- (1) Religious life of the Indus valley people and early Aryans.
- (2) Buddhist movement (up to Ashoka Period).
- (3) Rise And development of Sikhism (A.D. 1469 – 1708).

SECTION B : (LITERARY)

- (1) Introduction to Vedic Literature (name and main features of the four Vedas).
- (2) General Introduction to Puranas, Upanishads, Shastras.
- (3) The Adi-Granth – its editing scheme.

SECTION C : (REFLECTIVE)

- (1) Ashta marga of Buddhism.
- (2) Ethical teachings of Jainism.
- (3) The Sikh way of life.

BOOK PRESCRIBED

An Introduction to Indian Religion by Harbans Singh & L.M. Joshi (Punjabi University, Patiala).

BOOK SUGGESTED (for general reading)

Punjabi University, Patiala

Budhism

Jainism

Sikhism

Surinder Singh Johar – A hand book of Sikhism.

Class-XII
26. MUSIC (VOCAL)

Time: 3Hrs.
Time: 20Minutes

Theory: 30 Marks
Practical: 40 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER (THEORY)

1. The question paper will comprise of 14 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of three parts.

Part-I will consist of 8 objective type questions (Q.no. 1 to 8) carrying one mark each. The answer of each question should not exceed more than one sentence. 8×1=8 Marks

Part-II will consist of four (4) short answer type questions (Q. no. 9 to 12) carrying three (3) marks each. The answer of each question should be given in 10 to 15 lines. 4×3=12 Marks

Part-III will consist of two (2) essay type questions (Q. no. 13 to 14) with internal choice from both parts- A and B parts of the syllabus. These questions will carry 5 marks each and their answer should not exceed more than two pages of the answer sheet. 2×5=10 Marks

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of Question	Marks of per Question	No. of Questions	Section-wise Distribution of Questions		Total Marks
			Section - A	Section - B	
Objective Type	1	8	4	4	8
Short Answer Type	3	4	2	2	12
Essay Type	5	2	1	1	10
Total Questions		14	7	7	30

SYLLABUS (THEORY)
SECTION-A

1. Detailed knowledge of Tanpura, Tabla and Harmonium.
2. Brief history of modern period of Hindustani music.
3. Difference between Deshi and Margi Sangeet.
4. Principles of Alaap Gayan.
5. Principles of formation of Raags.
6. Define and explain the following musical terms: Meend, Nayak, Nayaki, Gayak, Gayaki, Vagyakar, Shudh, Chhayalg, Sankiran, Khyal, Sargam Geet, Lakshan Geet, Shabad and Bhajan.
7. Gayak ka Gun Aur Dosh.
8. Contribution towards music by the following scholars:
 - a. Swami Haridas
 - b. Narayan Rao Vayas
 - c. Bade Gulam Ali Khan
 - d. Pandit Vishnu Digambar Pulaskar.

SECTION-B

1. To write the notations of Khyals in prescribed Raags : Bhimplasi, Bhairav, Bihag, Varindavani Sarang.
2. Notation of EK Taal, Char Taal, Sul Taal along with Dugun and Chougun Layakaries.
3. Recognition of Raags from given Swar Sangaties.
4. Description of prescribed Raags.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

Time: 20 Minutes

Marks: 40

There should not be more than 9 students in a batch of practical examination. Harmonium is allowed as accompaniment in music (Vocal). The examiner will set the question paper on the spot. While setting the question paper in practical, the examiner must consider the syllabus in theory and will follow the following instructions.

1. Demonstration/performance of any one Raag out of the prescribed syllabus. The students can exercise the choice of Raags. It will be for 6 minutes and shall carry 10 marks.
2. Demonstration/performance of one Raag from prescribed syllabus. The choice will be of examiner. It will be for 4 minutes and will carry 10 marks.
3. Demonstration/performance of prescribed Taals in Ikgun and Dugun Layakaries by hand. It will be for 4 minutes and will carry 10 marks.
4. Recognition of one Taal and one Raag out of the prescribed syllabus. It will be for 2 minutes and will carry 5 marks.
5. Demonstration/performance regarding Alankaar, National Anthem/non detailed Raags, it will also be for 4 minutes and will carry 5 marks.

SYLLABUS (PRACTICAL)

1. One Drut Khyal with Alaap-Taana the following Raags : Bhimplasi, Bhairav, Bihag, Varindavani Sarang.
2. One slow Khyal with short Alaaps and Taans in any of the prescribed Raags.
3. One Dhrupad only Sathai and Antra in any of the prescribed Raags.
4. Ability to demonstrate EK Taal, Char Taal, Sul Taal with recting Bols by hands in Tha (Ikgun) and Dugun Layakari.
5. Ability to play Dadra and Teen Taal on Tabla.
6. One Bhajan or Shabad or Geet.
7. Knowledge of the following Raags: (Aroh, Avroh and Pakar) Kafi, Ramkali, Jaunpuri.
8. Alankaars.

Class-XII
27. GURMAT SANGEET

Time: 3 Hrs.
Time: 20 Minutes

Theory: 30 Marks
Practical: 40 Marks
CCE: 30 Marks
Total: 100Marks

STRUCTURE OF QUESTION PAPER (THEORY)

1. The question paper will comprise of 14 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of three parts.

Part-I will consist of eight (8) objective type questions (Q. no.1 to 8) carrying one mark each. The answer of each question should not exceed more than one sentence. 8×1=8 Marks

Part-II will consist of four (4) short answer type questions (Q. no. 9 to 12) carrying three (3) marks each. The answer of each question should be given in 10 to 15 lines. 4×3=12 Marks

Part-III will consist of two (2) essay type questions (Q. no. 13 to 14) with internal choice from both parts- A and B parts of the syllabus. These questions will carry 5 marks each and their answer should not exceed more than two pages of the answer sheet. 2×5=10 Marks

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of Question	Marks of per Question	No. of Questions	Section-wise Distribution of Questions		Total Marks
			Section - A	Section - B	
Objective Type	1	8	4	4	8
Short Answer Type	3	4	2	2	12
Essay Type	5	2	1	1	10
Total Questions		14	7	7	30

SYLLABUS (THEORY)
SECTION-A

Unit-1

1. Brief history of Gurmat Music.
2. Contribution towards Gurmat Sangeet by Guru Arjun Dev Ji.
3. Introduction of Choukie :-
 - a. Asa Di Var
 - b. Sodar
4. Brief introduction of famous Kirtanias of Guru period.
 - a. Bhai Mardana
 - b. Bhai Shahzad
 - c. Bhai Sata.
 - d. Bhai Balwand.
5. Raag Parkar and Mishrit (mixed) Raags of Guru Granth Sahib.
6. Life sketch and contribution of towards Gurbani Sangeet.
 - a. Bhai Chand

- b. Prof. Tara Singh
 - c. Bhai Hira Singh
7. Definition of following music terms used in Gurmat Sangeet Raag: Mahalla, Shabad Ank, Rahao, Dhuni (Dhun), Partal, Ghar.

SECTION-B

1. Description of the prescribed Raags: Todi and Dhanasari, Sarang, Baharaiv.
2. Description with Ikgun, Dugun and Chougun of Ek Taal, Jhap Taal, Rupak Taal and Teen Taal.
3. Recognition of prescribed Raags: Asavari, Dhanasari, Bhairav, Sarang Raags from given Swar- Sangaties.
4. Notation of Shabad- Gayan only Sathai Antra.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

There should not be more than 9 students in a batch of practical examination of Gurmat Sangeet. Harmonium will be allowed as a accompaniment. The examiner will set the question paper on the spot. While setting the question paper in practical examination, the examiner must consider the syllabus in theory and will follow the following instructions.

1. Demonstration/performance of Shabad Gayan in any one Raag out of the prescribed Raags in the syllabus. The choice of the Raags will be done by the student. It will be for 6 minutes and shall carry 10 marks.
2. Demonstration/performance of Shabad Gayan in any one Raag out of the prescribed Raags in the syllabus. The examiner will do the choice of the Raags. It will be for 4 minutes and shall carry 10 marks.
3. Demonstration/performance of Taals in Ikgun and Dugun layakaries by hand. It will be for 4 minutes and shall carry 10 marks.
4. Recognition of one Taal and one Raag out of the prescribed Taals and Raags in syllabus. It will be for 2 minutes and will carry 5 marks.
5. Demonstration/performance regarding Alankaara/Shand (Chhant) and Salok. It will be for 4 minutes and carry 5 marks.

SYLLABUS (PRACTICAL)

1. Shabad Gayan in Bhairav, Sarang, Asavari and Dhansari according to the traditional style of Gurbani Gayan.
2. Capability to demonstrate: Ek Taal, Jhap Taal, Rupak Taal and Teen Taal.
3. Five Alankaras: (Sargam and Akaar) in Bhairav and Todi Raags.
4. Recognition of prescribed Raags by given Swar-Sangities.
5. Gayan of one Gurbani Salok in vilambat laya according to Vandana style.

Class XII

28. MUSIC (INSTRUMENTAL)

Time: 3 Hrs.
Time: 20 Minutes

Theory: 30 Marks
Practical: 40 Marks
CCE: 30 Marks
Total: 100Marks

STRUCTURE OF QUESTION PAPER (THEORY)

1. The question paper will comprise of 14 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of three parts.

Part-I will consist of eight (8) objective type questions (Q.no. 1 to 8) carrying one mark each. The answer of each question should not exceed more than one sentence. 8×1=8 Marks

Part-II will consist of four (4) short answer type questions (Q.no. 9 to 12) carrying three (3) marks each. The answer of each question should be given in 10 to 15 lines. 4×3=12 Marks

Part-III will consist of two (2) essay type questions (Q. no. 13 to 14) with internal choice from both parts- A and B parts of the syllabus. These questions will carry 5 marks each and their answer should not exceed more than two pages of the answer sheet. 2×5=10 Marks

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of Question	Marks of per question	No. of Questions	Sectionwise distribution of questions		Total Marks
			Section A	Section B	
Objective Type	1	8	4	4	8
Short Answer Type	3	4	2	2	12
Essay Type	5	2	1	1	10
Total Question		14	7	7	30

SYLLABUS (THEORY)
PART-A

1. History of your Instrument.
2. Vadak Ke Gun Aur Dosh.
3. Detailed study of Bageshvari, Bhairav, Desh, Bihag Raags.
4. Comparative study of Uttar and Dakhini music system.
5. Definition of the following music terms : Soot, Meend, Ghaseet, Jhalla, Nayak, Nayaki, Poorantrik (major tone), Laghyantrik (minor Tone), Ardhantrik (Semi Tone).
6. Method of 72 Thaats of Vyanket Mukhi.
7. Notation of prescribed Raags and Taals.
8. Contribution towards music by the following scholars :
 - i. Hafiz Ali Khan,
 - ii. Nikhal Banaraji,
 - iii. Pandit Vishnu Digamber Paluskar.

PART-B

1. To write the notation of Gats in Bageshwari, Bhairav, Desh and Bihag Raags.
2. Notation of prescribed Raags.
3. Description of Rupak, Ek Taal, Jhap Taal, Teen Taal and Kaharva with Ekgun and Dugun Layakaries.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

There should not be more than 9 students in a batch of practical examination. The examiner will set the question paper on the spot. While setting the question paper in practical examination, the examiner must consider the syllabus in theory and will follow the following instructions.

1. Demonstration/performance of any one Raag out of the prescribed syllabus. The student will do the choice of the Raags. It will be for 6 minutes and shall carry 10 marks.
2. Demonstration/performance of one Raag out of the prescribed syllabus. The examiner will do the choice of the Raag. It will be for 4 minutes and shall carry 10 marks.
3. Demonstration/performance of Taals in Ikgun and Dugun layakaries by hand. It will be for 4 minutes and shall carry 10 marks.
4. Recognition of one Taal and one Raag out of the prescribed Taals and Raags in syllabus. It will be for 2 minutes and will carry 5 marks.
5. Demonstration /performance regarding Alankara/National Anthem/non detailed Raags. It will be for 4 minutes and carry 5 marks.

SYLLABUS (PRACTICAL)

1. One Drut Gat with short Alaap, Toras and Jhalla in each of the following Raags.
 - iv. Begashwari
 - v. Bhairav
 - vi. Desh
 - vii. Bihag.
2. One slow Gat with short Alaap and Toras in any of the prescribed Raags in the syllabus.
3. Ability to demonstrate Rupak, Ek Taal, Jhap Taal, Teen Taal, Kaharva by hand with reciting bols in Ikgun and Dugun layakari.
4. Ability to play the tune of National Anthem.
5. Ten Alankars.
6. Knowledge of the following Raags (Aroh, Avroh and Parker) (i) Kaffi (ii) Ramkali (iii) Jaunpuri.
7. Ability to play Teen Taal and Kaharva Taal on Tabla.
8. One Dhun in any Raag.
9. One Gat in Jhap Taal in Madhy Laya with Toras in any one of the prescribed Raags.

Class-XII
29. MUSIC (TABLA)

Time: 3 Hrs.
Time: 20 Minutes

Theory: 30 Marks
Practical: 40 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER (THEORY)

1. The question paper will comprise of 14 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of three parts.

Part-I will consist of eight (8) objective type questions (Q. no. 1 to 8) carrying one mark each. The answer of each question should not exceed more than one sentence.8×1=8 Marks

Part-II will consist of four (4) short answer type questions (Q. no. 9 to 12) carrying three (3) marks each. The answer of each question should be given in 10 to 15 lines.4×3=12 Marks

Part-III will consist of two (2) essay type questions (Q. no. 13 to 14) with internal choice from both parts- A and B parts of the syllabus. These questions will carry 5 marks each and their answer should not exceed more than two pages of the answer sheet.2×5=10 Marks

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of Question	Marks of per Question	No. of Questions	Section-wise Distribution of Questions		Total Marks
			Section - A	Section - B	
Objective Type	1	8	4	4	8
Short Answer Type	3	4	2	2	12
Essay Type	5	2	1	1	10
Total Questions		14	7	7	30

SYLLABUS (THEORY)
PART-A

1. Definition of the following :- Uthan, Peshkar, Paran, Tehai, Duppali, Tippali, Rela, Nagma.
2. Principles of formation of Taal.
3. Essay on importance of Laya and Taal in music and importance of Tabla in music. .
4. Comparative study of Tabla and Pakhawaj Vadan.
5. Taal and its ten Parans.
6. Brief introduction of Gharanas of Tabla.
7. Principles of Tabla solo Vadan.
8. Biographical sketches of the following Tabla maestro :
 - a. Pt. Kanthe Maharaz
 - b. Pt. Shamta Prasad
 - c. Ustad Zakir Hussain

d. Ustad Laxaman Singh Seen.

PART-B

1. Introduction and notation of the following Taals with Ikgun, Dugun, Tigun and Chougun Layakaries : (i) Rupak Taal (ii) Jhap Taal (iii) Ek Taal (iv) Deepchandi (v) Teen Taal (vi) Punjabi Theka (Chhota Teen Taal)
2. Description and comparison of the following Taals :
 - a. Teen Taal- Punjabi Theka
 - b. Deepchandi- Dhamar Taal
 - c. Rupak Taal- Tivra Taal
3. Notation of the following material in Teen Taal, Jhap Taal, Rupak Taal: Peskhar, Kayada, Tehai, Paran, Rela and Tukra.
4. Recognition of Teen Taal, Deepchandi, Punjabi Theka, Dhamar, Rupak, Tivra Taals through some Bols.
5. Notation of Nagama in prescribed Taals.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

There should not be more than 9 students in a batch of practical examination. The examiner will set the question paper on the spot. While setting the question paper in practical examination, the examiner must consider the syllabus in theory and will follow the following instructions.

1. Demonstration/performance of any one Taal out of the prescribed syllabus. The choice of the Taal will be of the student. It will be for 6 minutes and shall carry 10 marks.
2. Demonstration/performance of any one Taal out of the prescribed syllabus. The choice will be of the examiner. It will be for 4 minutes and shall carry 10 marks.
3. Demonstration/performance of Padhant (pronouncing the Bols of Taal) in Ikgun and Dugun layakaries. It will be for 4 minutes and carry 10 marks.
4. Students will be given 4 varans of prescribed Taals. He/she will have to recognize any two, It will be for 2 minutes and will carry 5 marks.
5. Any two laggies with Tihai in Rupak Taal. It will be for 4 minutes and carry 5 marks.

SYLLABUS (PRACTICAL)

1. System solo performance of the following Taals: Ek Taal and Teen Taal, Teewra Taal, Rupak Taal.
2. Few Laggis in Rupak Taal.
3. To play Thekas in Ikgun and Dugun Layakaries in Deepchandi, Teen Taal and Chhota Teen Taal, Rupak, Jhap Taal and Ek Taal.
4. Recognition of Taals.
5. Tuning of Tabla.
6. Ability to play Nagama on Harmonium in any Taal of your syllabus.
7. Ability to Padhant showing Tali and Khali of Taals in Ikgun and Dugun Layakaries.

Class-XII
30. DANCE

Time: 3 Hrs.
Time: 20 Minutes

Theory: 30 Marks
Practical: 40 Marks
CCE: 30 Marks
Total:100Marks

STRUCTURE OF QUESTION PAPER (THEORY)

1. The question paper will comprise of 14 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of three parts.

Part-I will consist of eight (8) objective type questions (Q.no. 1 to 8) carrying one mark each. The answer of each question should not exceed more than one sentence. 8×1=8 Marks

Part-II will consist of four (4) short answer type questions (Q.no. 9 to 12) carrying three (3) marks each. The answer of each question should be given in 10 to 15 lines. 4×3=12 Marks

Part-III will consist of two (2) essay type questions (Q. no. 13 to 14) with internal choice from both parts- A and B parts of the syllabus. These questions will carry 5 marks each and their answer should not exceed more than two pages of the answer sheet. 2×5=10 Marks

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of Question	Marks of per question	No. of Questions	Sectionwise distribution of questions		Total Marks
			Section A	Section B	
Objective Type	1	8	4	4	8
Short Answer Type	3	4	2	2	12
Essay Type	5	2	1	1	10
Total Question		14	7	7	30

SYLLABUS (DANCE)

PART-A

1. Knowledge of the Kathak dance.
2. Definition of the following terms : Laya, Taal, Theka, Paran, Chakkardaraparan, Kavita, Gat-nikas.
3. Knowledge of Hasta Mudras (Sanyukta) based on Abhinaya Darpana.
4. Knowledge of the following Dances :
 - i. Bharata Natayam
 - ii. Lasya
5. Life sketch of Uday Shanker.
6. Knowledge of Rasa and Bhava and their application in Dance.
7. Knowledge of folk dance of Punjab.

PART-B

8. Definition and comparative study of Teen Taal and Jhap Taal.
9. Ability to write the following material in prescribed Taals given below:

- i. Teen Taal: One Thaat, one Amad, Two Tukras, one Salami, one Paran, two Toras, one Kavit.
 - ii. Jhap Taal: One Thaat, one Tehai, one Amad, one salami, one Tora.
10. Ability to recognize the Layakari (Ikgun, Dugun, Tigun and Chougun) through some Bole from Teen Taal and Jhap Taal.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

There should not be more than 9 students in a batch of practical examination. The examiner will set the question paper on the spot. While setting the question paper in practical examination, the examiner must consider the syllabus in theory and will follow the following instructions.

1. A systematic dance performance in any Taal out of the prescribed syllabus as per the choice of student. It will be for 6 minutes and shall carry 10 marks.
2. A systematic dance performance in any Taal out of the prescribed syllabus as per the choice of the examiner. It will be for 4 minutes and will carry 10 marks.
3. Demonstration/performance of any Taal in Ikgun, Dugun layakaries. It will be for 4 minutes and shall carry 10 marks.
4. Student will be given some Bols out of the prescribed Taals. He/She will have to recognize two out of these. It will be for 2 minutes and will carry 5 marks.
5. Padhant of prescribed Taal and layarkries on hand. It will be for 4 minutes and carry 5 marks.

SYLLABUS (PRACTICAL)

Systematic performance of the following Taals:

I. (a). Teen Taal:

- (i) Four varieties of advance Tatkar, in Ikgun and Dugun layakaries.
- (ii) One Thaat
- (iii) One Amad
- (iv) two simple Tukras
- (v) One Salami
- (vi) One Paran
- (vii) One Kavit.

(b) Jhap Taal:-

- (i) One Thaat
- (ii) one Tehai
- (iii) one Amad
- (iv) one Salami
- (v) one Tora.

II. Padhant of Thekas of Teen Taal and Jhap Taal in Ikgun, Dugun and Chougun layakaries by hand.

III. Padhant of all material in Teen Taal by hand.

Class-XII
31. PHILOSOPHY

Time: 3 Hours

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. There will be 22 questions in all. All questions will be compulsory.
2. Question No. 1 to 10 will carry 1 mark each. Answer to each question should be in about 1- 15 words. 10×1= 10
3. Question No. 11 to 15 will carry 3 marks each. Answer to each question should be in about 30 - 35 words 5×3= 15
4. Question No. 16 to 20 will carry 5 marks each with 100% internal choice. Answer to each question should be in about 75-85 words. 5×5= 25
5. Question No. 21 & 22 will carry 10 marks each. Answer to each question should be in about 250 - 300 words. Three will be 100% internal choice in these questions. The paper setter should not set more than one such question from one chapter. 2×10= 20

Unit-wise Weightage to Content

Unit No.	Questions carrying 1 Mark	Questions carrying 3 Marks	Questions carrying 5 Marks	Questions carrying 10 Marks	Total
1, 2, 3,4	5	3	3	1	39 Marks
5,6,7,8,	5	2	2	1	31 Marks
Total questions	10	5	5	2	22 Questions
Total marks	10	15	25	20	70 Marks

SYLLABUS

- UNIT I** Scientific Method: its nature; difference between this method and common sense thinking.
- UNIT II** Hypothesis: Its meaning, its place in scientific method; formulation of a relevant hypothesis.
- UNIT III** Explanation: its meaning, popular and scientific explanation, kinds and limits of scientific explanation.
- UNIT IV** Propositions: Meaning /traditional, analysis of propositions, Various divisions of propositions. Inference: Its Nature and Kinds-Immediate Inference, opposition, observation and conversion
- UNIT V** Knowledge: Sources of Knowledge, Nature and theories of truth.
- UNIT VI** Schools of Philosophy: Idealism and Materialism.
- UNIT VII** Indian Philosophy: Its nature and salient features.
- UNIT VIII** (a) The Philosophy of Bhagwad-Gita-Karma Yoga.
(b) Sikhism: Its salient features; concepts of Sewa

Class-XII
32. EDUCATION

Time: 3 Hours

Theory: 70 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. There will be 22 questions in all. All questions will be compulsory.
2. Question No. 1 to 10 will carry 1 mark each. Answer to each question should be in about 10 - 15 words. 10×1= 10
3. Question No. 11 to 15 will carry 3 marks each. Answer to each question should be in about 20 - 25 words 5×3= 15
4. Question No. 16 to 20 will carry 5 marks each with 100% internal choice. Answer to each question should be in about 75-80 words. 5×5= 25
5. Question No. 21 & 22 will carry 10 marks each. Answer to each question should be in about 200 - 250 words. There will be 100% internal choice in these questions. The paper setter should not set more than one such question from one chapter. 2×10= 20

Unit-wise Weightage to Content

Unit No.	Questions carrying 1 Mark	Questions carrying 3 Marks	Questions carrying 5 Marks	Questions carrying 10 Marks	Total
1, 2, 3,	6	3	3	1	40 Marks
4.5	4	2	2	1	30 Marks
Total questions	10	5	5	2	22 Questions
Total marks	10	15	25	20	70 Marks

SYLLABUS

Principles and Techniques of Education.

UNIT-I Education in ancient and modern India.

UNIT-II Education and Society: Relation between the two.

- UNIT-III**
- (a) Educational Structure: Primary to University (10+2+3):
 - (b) Teaching Aids- Chart, Models, Computers, Radio & Television, Chalk, Black Board, Posters, Cartoon, and Projections.
 - (c) Methods of Teaching: Lecture-method, Discussion-method, Project-method, Demonstration- method.
 - (d) Teacher, his qualities and preparation.

Unit-IV Educational Psychology: Its meaning and Scope: its importance for the teacher.

Unit-V Management of Education:

- (a) District Level : D.E.O Secondary
: D.E.O Primary
: B.P.E.O.
- (b) State Level : Education Ministry, Education Directorates, College Secondary Education, Primary Education
Allied organizations : (a) S.C.E.R.T., (b) S.I.S.E.
- (c) Centre Level : Ministry of Education, Central Secretariat and allied institutions. N.C.E.R.T, C.B.S.E. and U.G.

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

1. ਪਹਿਲੇ ਪ੍ਰਸ਼ਨ ਦੇ ਪੰਜ ਉਪ ਭਾਗ ਹੋਣਗੇ ਜਿਨ੍ਹਾਂ ਦੇ ਉੱਤਰ **objective type** ਹੋਣਗੇ। ਹਰ ਉੱਪ ਭਾਗ ਇਕ ਅੰਕ ਦਾ ਹੋਵੇਗਾ ਤੇ ਹਰ ਉਤਰ ਦੀ ਲੰਬਾਈ ਇਕ ਸ਼ਬਦ ਤੋਂ ਇਕ ਵਾਕ ਤੱਕ ਜਾਂ **multiple choice** ਕਿਸਮ ਦੀ ਹੋ ਸਕੇਗੀ। ਉਪ ਭਾਗ ਦੇ ਘੱਟੋ-ਘੱਟ ਦੋ ਪ੍ਰਸ਼ਨ ਹਰ ਯੂਨਿਟ ਵਿੱਚੋਂ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ। $1 \times 5 = 5$
2. ਦੂਸਰੇ ਪ੍ਰਸ਼ਨ ਦੇ ਚਾਰ ਉਪ ਭਾਗ ਹੋਣਗੇ ਅਤੇ ਹਰ ਉਪ ਭਾਗ 2 ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ। ਉੱਤਰ ਦੀ ਲੰਬਾਈ 2 ਤੋਂ 3 ਵਾਕਾਂ ਵਿਚਾਲੇ ਹੋਵੇਗੀ ਤੇ ਉਪ ਭਾਗ ਦੇ 2 ਪ੍ਰਸ਼ਨ ਹਰ ਯੂਨਿਟ ਵਿੱਚੋਂ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ। $2 \times 4 = 8$
3. ਤੀਸਰੇ ਪ੍ਰਸ਼ਨ ਦੇ ਛੇ ਉਪ ਭਾਗ ਹੋਣਗੇ ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਚਾਰ ਦੇ ਉੱਤਰ 60 ਤੋਂ 80 ਸ਼ਬਦਾਂ ਵਿੱਚ ਦੇਣੇ ਹੋਣਗੇ। ਹਰ ਉਪ ਭਾਗ 3 ਅੰਕ ਦਾ ਹੋਵੇਗਾ ਤੇ ਘੱਟੋ-ਘੱਟ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਹਰ ਯੂਨਿਟ ਵਿੱਚੋਂ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ। $3 \times 4 = 12$
4. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 4 ਤੋਂ 6 ਤੱਕ ਜੋੜੇ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ ਜਿਨ੍ਹਾਂ ਦੇ ਹਰ ਜੋੜੇ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਦਾ ਜਵਾਬ ਦੇਣਾ ਜ਼ਰੂਰੀ ਹੋਵੇਗਾ। ਹਰ ਪ੍ਰਸ਼ਨ ਪੰਜ ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ ਤੇ ਉੱਤਰ ਦੀ ਲੰਬਾਈ 150 ਤੋਂ 250 ਸ਼ਬਦਾਂ ਵਿੱਚ ਰੱਖਣੀ ਹੋਵੇਗੀ। ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਦੋ-ਦੋ ਜੋੜੇ ਹਰੇਕ ਯੂਨਿਟ ਵਿੱਚੋਂ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ। $5 \times 3 = 15$
5. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 7, ਭਾਰਤ ਦੇ ਨਕਸ਼ੇ ਨਾਲ ਸਬੰਧਤ ਹੋਣਗੇ। $1 \times 5 = 5$
6. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 8, ਸੰਸਾਰ ਦੇ ਨਕਸ਼ੇ ਨਾਲ ਸਬੰਧਤ ਹੋਵੇਗਾ। $1 \times 5 = 5$

ਨੋਟ: ਨੇਤਰਹੀਣ ਵਿਦਿਆਰਥੀ ਨਕਸ਼ਾ ਭਰਨ ਦੀ ਥਾਂ ਇਹਨਾਂ ਸਥਾਨਾਂ, ਕੇਂਦਰਾਂ ਦੀ ਸਥਿਤੀ ਸਪਸ਼ਟ ਰੂਪ ਵਿੱਚ ਲਿਖਣਗੇ।

ਪਾਠਕ੍ਰਮ (ਯੂਨਿਟ-1)

ਸੰਸਾਰ ਦੇ ਆਰਥਿਕ ਭੂਗੋਲ ਵਿੱਚ ਭਾਰਤ ਦਾ ਵਿਸ਼ੇਸ਼ ਹਵਾਲਾ ਦਿੰਦੇ ਹੋਏ:-

1. ਆਰਥਿਕ ਭੂਗੋਲ ਦਾ ਸਰੂਪ ਅਤੇ ਮੱਹਤਵ।
2. ਧਰਤੀ ਦੇ ਮੁੱਖ ਸਾਧਨ, ਸਾਧਨਾਂ ਦਾ ਵਰਗੀਕਰਨ, ਜੀਵ ਅਤੇ ਨਿਰਜੀਵ ਸੋਮੇ, ਮੁੱਕ ਤੇ ਅਮੁੱਕ, ਸੰਭਾਵਤ ਅਤੇ ਵਿਕਸਤ ਸਾਧਨ, ਕੱਚੇ ਮਾਲ ਅਤੇ ਉਹਨਾਂ ਦੇ ਸਾਧਨ, ਖੇਤੀਬਾੜੀ ਅਤੇ ਚਾਰਾਗਾਹੀ ਸਾਧਨ, ਖਣਿਜ ਪਦਾਰਥ ਅਤੇ ਉਦਯੋਗਿਕ ਸਾਧਨ।
3. ਧਰਤੀ ਦੇ ਮੁੱਖ ਕੁਦਰਤੀ ਸਾਧਨਾਂ ਦੀ ਵੰਡ: ਜੰਗਲ, ਮੱਛੀਆਂ, ਖਣਿਜ ਪਦਾਰਥ-ਲੋਹਾ, ਐਲੂਮੀਨੀਅਮ, ਮੈਂਗਨੀਜ਼, ਤਾਂਬਾ, ਕੋਲਾ, ਪੈਟਰੋਲੀਅਮ, ਪਣ-ਬਿਜਲੀ।
4. ਜਨਸੰਖਿਆ: ਵਸੋਂ ਦਾ ਵਾਧਾ, ਵੰਡ ਨੂੰ ਪ੍ਰਭਾਵਿਤ ਕਰਨ ਵਾਲੇ ਕਾਰਕ: ਭੌਤਿਕ, ਸਭਿਆਚਾਰਕ, ਆਰਥਿਕ, ਰਾਜਨੀਤਿਕ, ਧਾਰਮਿਕ ਅਤੇ ਸਮਾਜਿਕ। ਵਸੋਂ ਘਣਤਾ: ਵੱਧ, ਵਿਰਲੀ ਅਤੇ ਘੱਟ ਵਸੋਂ ਘਣਤਾ।

(ਯੂਨਿਟ-2)

1. ਸੰਸਾਰ ਦੇ ਮੁੱਖ ਸਾਧਨਾਂ ਦਾ ਵਿਤਰਨ: ਖੇਤੀਬਾੜੀ ਕਿਸਮਾਂ: ਸਥਾਨਅੰਤਰੀ ਅਤੇ ਸਥਾਈ ਖੇਤੀ, ਨਿਰਬਾਹ ਖੇਤੀ ਅਤੇ ਵਪਾਰਕ ਖੇਤੀ, ਸੰਘਣੀ ਅਤੇ ਵਿਸਤ੍ਰਿਤ ਖੇਤੀ, ਬਾਗਾਤੀ ਖੇਤੀ, ਰਲੀ ਮਿਲੀ ਖੇਤੀ। ਪਸ਼ੂ ਪਾਲਣ: ਡੇਅਰੀ ਫਾਰਮਿੰਗ, ਟਰੱਕ ਫਾਰਮਿੰਗ ਅਤੇ ਬਾਗਬਾਨੀ, ਨਿੱਜੀ, ਸਹਿਕਾਰੀ ਅਤੇ ਸਾਂਝੀ ਖੇਤੀ, ਫਸਲਾਂ, ਕਣਕ, ਚਾਵਲ, ਕਪਾਹ, ਗੰਨਾ, ਚਾਹ, ਕਾਫੀ, ਰਬੜ।

2. **ਵਸਤੂ ਨਿਰਮਾਣ ਉਦਯੋਗ:** ਸਥਾਪਨਾ ਕਰਨ ਲਈ ਲੋੜੀਂਦੀਆਂ ਹਾਲਤਾਂ, ਉਦਯੋਗਾਂ ਦਾ ਵਰਗੀਕਰਨ: ਖੇਤੀਬਾੜੀ ਤੇ ਅਧਾਰਿਤ ਉਦਯੋਗ, ਛੋਟੇ, ਦਰਮਿਆਨੇ ਅਤੇ ਵੱਡੇ ਪੈਮਾਨੇ ਦੇ ਉਦਯੋਗ, ਨਿੱਜੀ ਮਲਕੀਅਤ, ਸਹਿਕਾਰੀ ਸਾਂਝਾ ਖੇਤਰ, ਸਰਕਾਰੀ ਖੇਤਰ, ਬਹੁਦੇਸ਼ੀ ਖੇਤਰ, ਲੋਹਾ ਅਤੇ ਇਸਪਾਤ ਉਦਯੋਗ, ਖੰਡ ਉਦਯੋਗ, ਸੂਤੀ ਕੱਪੜਾ, ਸਮੁੰਦਰੀ ਜਹਾਜ਼।
3. **ਸੰਸਾਰ ਦੇ ਪ੍ਰਮੁੱਖ ਆਵਾਜਾਈ ਦੇ ਸਾਧਨ:** ਸੜਕ ਮਾਰਗ, ਰੇਲ ਮਾਰਗ, ਹਵਾਈ ਮਾਰਗ, ਜਲ ਮਾਰਗ, ਪਾਈ ਲਾਈਨ, ਟਰਾਂਸ ਸਾਇਬੇਰੀਅਨ, ਕਨੇਡੀਅਨ, ਪੈਸੇਫਿਕ ਰੇਲਵੇ, ਟਰਾਂਸ ਐਡੀਅਨ, ਟਰਾਂਸ ਆਸਟਰੇਲਿਆਈ, ਸੋਏਜ਼ ਨਹਿਰ, ਪਨਾਮਾ ਨਹਿਰ।

ਪ੍ਰੈਕਟੀਕਲ (ਮੈਪਵਰਕ)

ਸਮਾਂ-3 ਘੰਟੇ

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

ਅੰਕ: 20

1. ਪ੍ਰੈਕਟੀਕਲ ਮੈਪਵਰਕ ਦੀ ਪ੍ਰੀਖਿਆ ਬਾਹਰੀ ਪ੍ਰੀਖਿਅਕ ਵਲੋਂ ਲਈ ਜਾਵੇਗੀ ਜਿਸ ਵਿੱਚ ਇੱਕ ਗਰੁੱਪ ਵਿੱਚ 20 ਤੋਂ ਵੱਧ ਪ੍ਰੀਖਿਆਰਥੀ ਨਹੀਂ ਹੋਣੇ ਚਾਹੀਦੇ। ਪ੍ਰੈਕਟੀਕਲ ਪ੍ਰੀਖਿਅਕ, ਮੌਕੇ 'ਤੇ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਸੈਟ ਕਰੇਗਾ ਅਤੇ ਉੱਤਰ ਪੱਤਰੀਆਂ ਦਾ ਮੁਲਾਕਾਤ ਵੀ ਉਥੇ ਹੀ ਮੌਕੇ 'ਤੇ ਹੋਵੇਗਾ।
2. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਵਿੱਚ 3 ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ ਜਿਸ ਵਿੱਚ 100% ਅੰਦਰੂਨੀ ਛੋਟ ਹੋਵੇਗੀ। ਸਾਰੇ ਯੂਨਿਟਾਂ ਵਿੱਚੋਂ ਘੱਟੋ ਘੱਟ ਇੱਕ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕਰਨਾ ਹੋਵੇਗਾ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ 4 ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ।
3. **Viva voce** ਅਤੇ ਸਾਰੇ ਸਾਲ ਵਿੱਚ ਬਣਾਏ ਗਏ, ਅਭਿਆਸ ਆਦਿ ਦੀ ਤਿਆਰ ਕੀਤੀ ਫਾਈਲ ਦੇ ਕ੍ਰਮਵਾਰ 4-4 ਅੰਕ ਹੋਣਗੇ।
4. ਇਸ ਪੇਪਰ ਦਾ ਮੁੱਖ ਉਦੇਸ਼ ਵਿਦਿਆਰਥੀਆਂ ਵਿੱਚ ਨਕਸ਼ੇ ਬਣਾਉਣ ਵਿੱਚ ਵਰਤੇ ਗਏ ਵੱਖ-ਵੱਖ ਤੱਥਾਂ ਦੀ ਕੁਸ਼ਲ ਸਮਝ ਪੈਦਾ ਕਰਨਾ ਹੈ। ਇਸ ਲਈ ਸਾਰੇ ਪ੍ਰਸ਼ਨ/ ਚਿੱਤਰ/ਡਰਾਇੰਗ ਸਬੰਧੀ ਵੱਖ-ਵੱਖ ਯੂਨਿਟਾਂ ਦੇ ਪਾਠਕ੍ਰਮ ਤੇ ਅਧਾਰਿਤ ਹੋਣੇ ਚਾਹੀਦੇ ਹਨ।

ਪਾਠਕ੍ਰਮ (ਮੈਪਵਰਕ)

- ਯੂਨਿਟ-1 ਪੈਮਾਨਾ: ਸਧਾਰਨ, ਤੁਲਨਾਤਮਕ, ਕਦਮਚਾਲ, ਕਰਣਾਤਮਕ, ਵਕਤ ਪੈਮਾਨਾ। ਨਕਸ਼ੇ ਨੂੰ ਛੋਟੇ ਤੋਂ ਵੱਡਾ ਕਰਨਾ (ਵਰਗ ਤਰੀਕੇ ਨੂੰ ਛੱਡ ਕੇ)।
- ਯੂਨਿਟ-2 ਵਿਤਰਨ/ਅਨੁਪਾਤਕ ਨਕਸ਼ੇ, ਬਿੰਦੂ ਦੀ ਵਰਤੋਂ, ਵਰਣਮਾਤਰੀ ਤਰੀਕੇ ਅਤੇ ਸਮਮੁੱਲ ਰੇਖਾਵਾਂ।
- ਯੂਨਿਟ-3 ਅੰਕੜਾ ਚਿੱਤਰਨ: ਲਾਈਨ ਅਤੇ ਬਾਰ ਗ੍ਰਾਫ, ਆਇਤਾਕਾਰ ਚਿੱਤਰ, ਪਾਈ ਜਾਂ ਚੱਕਰ ਚਿੱਤਰਨ ਆਦਿ।
- ਯੂਨਿਟ-4 ਨਕਸ਼ਾ ਪ੍ਰਖੇਪ ਭੂਮਿਕਾ, ਅਕਸ਼ਾਸ਼ ਤੇ ਦਿਸ਼ਾਂਤਰ ਰੇਖਾਵਾਂ, ਸਧਾਰਨ ਸਿਲੰਡਰੀਕਰਨ ਪ੍ਰਖੇਪਾਂ: ਸਧਾਰਨ, ਸਮਖੇਤਰਫਲੀ ਸਿਲੰਡਰੀ ਪ੍ਰਖੇਪ, ਮਰਕੇਟਰ ਪ੍ਰਖੇਪ, ਕੋਨਾਕਾਰ ਪ੍ਰਖੇਪਾਂ (ਸਿਖਰ ਬਿੰਦੂ ਪ੍ਰਖੇਪ) ਕੇਵਲ ਜਾਣ ਪਛਾਣ।

Class-XII
34. DEFENCE STUDIES

Time : 3 Hours

Theory : 50 Marks
Practical : 20 Marks
CCE : 30 Marks
Total : 100 Marks

STRUCTURE OF QUESTIONS PAPER (THEORY)

1. There will be 12 Questions in all.
2. All questions are compulsory.
3. There will be 5 questions of one Mark each & these questions will be objective type. 5 × 1 = 5
4. There will be 5 questions of 5 Marks each. 5 × 5 = 25
5. There will be 2 questions of 10 Marks each with internal choice. 2 × 10 = 20

SYLLABUS

Group- A

1. Elements of Strategy : Various definitions, distinctions between grand strategy, strategy and tactics type of strategy.
2. Armed forces of India's neighbours with special reference to Pakistan, China, Nepal, Bangladesh, and Sri Lanka.
3. Higher Defence Organization in India
 - (a) Defence Minister's committee.
 - (b) Chief of Staff's Committee.
4. Elements of Evolution of tactics: means of collection and interpreting information troop movements, operational and verbal orders, attack, defence and withdrawal.
5. Higher Defence organizations in India.
 - (a) Defence Committee of the Cabinet.
 - (b) National Defence Council.
 - (c) Powers of the President in relation to armed forces.
6. Organization of India's Armed forces.
 - (a) Equivalent ranks in the Armed forces.
 - (b) Role and Characteristic of Army, Navy and Air Force.
 - (c) Army: Integrated Headquarters, static and field formation, Elementary knowledge of the following weapons.
5.56mm INSAS Rifle, 7.62mm MMG, LMG 9 mm Carbine, Grenade, Mortar, Rocket Launcher, Antitank weapons : Tanks and APC
 - (d) Navy: Headquarters, Commands, Type of Ships and Submarines.
 - (e) Air Force, Headquarters, Commands, Types of service, Air Crafts of India.

PAPER-II

VIVA VOCE (PRACTICAL)

Note : In viva voce paper the lecture will be of 10 Marks and interview of 10 Marks. Each student will give a lecture in presence of audience for 5-10 minutes on the topic of his own choice out of the topics in the syllabus.

1. **Lecture :** Each student will be required to give a talk (and not paper reading for 5-10 minutes) on any one of the under mentioned topics.
 - (a) Strategy of indirect approach.
 - (b) Elements of tactics.
 - (c) Role of Navy in India's Defence.
 - (d) Static and field formations.
 - (e) Armed Forces of Pakistan.
 - (f) Types of Service Air Crafts of India.
 - (g) Armed Forces of china.
2. **Interview :** The examiner may ask the candidate any questions from topics mentioned in the list of topics for lecture.

Class-XII
35. PSYCHOLOGY

Time: 3 Hrs.

Time: 3 Hrs.

Theory: 50 Marks

Practical: 20 Marks

CCE: 30 Marks

Total: 100 Marks

STRUCTURE OF QUESTION PAPER

1. The Question paper will comprise of 19 questions in total.

2. All questions will be compulsory to attempt.

3. The question paper will consist of four parts:

Part-I will consist of five (5) objective type questions (Q.No.1 to 5) carrying 1 mark each. Objective type questions may include questions with one word to one sentence answer **or** fill in the blank **or** true/false **or** multiple choice type questions. 5×1=5

Part-II will consist of six (6) short answer type I, questions (Q. No. 6 to 11) carrying 2 marks each. Answer of each question should be given in 50-60 words. 6×2=12

Part-III will consist of five (5) short answer type II, questions (Q. No. 12 to 16) carrying 3 marks each. Answers of each question should be given in 70-80 words. 5×3=15

Part-IV will consist of three (3) long answer type questions with internal choice (Q. No. 17 to 19) carrying 6 marks each. Answer of each question should be given in approximately two pages of the answer sheet. 3×6=18

UNITWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of question	Marks per question	No. of questions	Unitwise Distribution Of Questions								Total Marks
			Unit-I	Unit-II	Unit-III	Unit-IV	Unit-V	Unit-VI	Unit-VII	Unit-VIII	
Objective type	1 Mark	5	1	1	1	1	1	-	-	-	5
Short answer type-I	2 Marks	6	1	1	1	1	1	-	-	1	12
Short answer type-II	3 Marks	5	1	1	1	1	1	-	-	-	15
Long answer type	6 Marks	3	-	-	-	-	-	1	1	1	18
Total		19	3	3	3	3	3	1	1	2	50

SYLLABUS

Unit I Growth and Development: Difference between Growth and Development, Principles of Growth and Development. Stages of Growth and Development, Physical, Mental, Emotional and Social, Characteristics of Adolescence, Effect of Heredity and Environment in Growth and Development.

- Unit II** Emotions: Definition, Concept and Characteristics of Emotions, Physical and Physiological changes accompanying emotions. Difference between emotions and feelings, Important emotions: Fear, Anger and Aggression, Jealousy, Love, Happiness, Curiosity.
- Unit III** Motivation: Meaning, Definition and Characteristics of Motivated behaviour, Classes and types of Motives and Needs, Maslow's Theory of Hierarchy of needs. Instincts, Drives, Incentives and goals as Motives. Frustrations and Conflicts of Motives.
- Unit-IV** Thinking, Reasoning and Problem Solving: Definition, types and stages of Thinking-images and Thinking – Languages and Thinking. Reasoning - Definition, Characteristics, steps and types of Reasoning - Problem solving - Creative thinking - Concepts : Definition, type of formation of concepts.
- Unit-V** Delinquency and Mental Health: Delinquent Behavior, Definition, Characteristics, Causes, Remedial and Preventive Measures - Mental Health: Meaning and Definition - Characteristics of a 'Mentally healthy person, Defence Mechanism.
- Unit-VI** Intelligence : Definition, Nature and theories : Spearman's two theory and Thrnstone's Primary Mental Abilities theory - Concept of I.Q. Measurement of Intelligence - Intelligence Tests - Relative Role of Heredity and Environment on the development of Intelligence.
- Unit-VII** Personality: Definition, Nature, Characteristics and Traits of Personality Classification of Personality: Sheldon's Jung's and Eysenck's Classifications- Theories of Personality, Freud's Psychoanalytical theory - Jung's Analytical theory, Allport's theory of cardinal traits, Carl Roger's theory of self, Adler's theory of will power.
- Unit-VIII** Statistics: Frequency distribution, Mean, Median, Mode, Mean Deviation, Standard Deviation, Quartile Deviation. (Only numerical will be set from this unit.)

Experiments:

1. Muller Lyer Illusions
2. Maze learning.
3. Card Sorting
4. Problem Solving
5. Intelligence test-Verbal
6. Intelligence test-Non-Verbal
7. Imagery Types.
8. Personality Inventory

Class XII
36. HOME SCIENCE

Time: 3 Hrs.
Time: 3 Hrs.

Theory: 40 Marks
Practical: 30 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER (Theory)

1. The question paper will comprise of 16 questions in total.
2. All questions will be compulsory to attempt.
3. The question paper will consist of three parts with each part representing both sections.

Part-I will consist of 6 objective type questions (Q. no. 1 to 6) carrying one mark each. Objective type questions may include questions with one word to one sentence answer **or** fill in the blank **or** true/false **or** multiple choice type questions. 6×1=6

Part-II will consists of 8 short answer type questions (Q. no. 7 to 14) carrying 3 marks each. Answer of each question should be given within 60-80 words. 8×3=24

Part-III will consist of two long answer type questions (Q. no.15 to 16) with internal choice carrying 5 marks each. Answer of each question should be given within 150-200 words. 2×5=10

SECTIONWISE DISTRIBUTION OF QUESTIONS AND MARKS

Type of question	Marks per question	No. of Questions	Section wise Distribution of questions		Total Marks
			Section A	Section B	
Objective type	1 Mark	6	3	3	6
Short answer type	3 Marks	8	4	4	24
Long answer type	5 Marks	2	1	1	10
Total		16	8	8	40

SYLLABUS (THEORY)

SECTION-A (Foods and Nutrition)

1. Definition: Food, Nutrients and Nutrition
2. Functions of Food
3. Nutrients: Study of composition, functions, requirements, effects of deficiency and food sources of these nutrients:
 - (a) Proteins
 - (b) Carbohydrates
 - (c) Fats
 - (d) Minerals
 - (e) Vitamins- A, B, C, D, E and K
 - (f) Water
4. Digestion and absorption of food.
5. Balanced Diet- Definition and Planning of balanced diet for the family

6. Meal Planning for the Family
 - (a) Factors effecting meal planning
 - (b) Size and composition of the family
 - (c) Food cost- availability, season etc.
 - (d) Recommended dietary allowance for the various age groups, occupation and physiological states (pregnancy, lactation & fever)
7. Methods of Cooking Food
 - (a) Reasons for cooking food
 - (b) Methods of cooking
 - (c) Moist heat: boiling, steaming & stewing
 - (d) Dry heat: roasting, grilling & baking
 - (e) Frying: Shallow and Deep
 - (f) Effect of cooking on food
8. Food Preservation
 - (a) Causes of food spoilage
 - (b) Principles of food preservation
 - (c) Methods of food preservation in home- heating, cooling (use of refrigerator and ice boxes), drying, preserving by pickling and preparing Squash & Jams

SECTION-B (Child Development and Mother Craft)

1. Prenatal Development
 - (a) Importance of pre-natal care
 - (b) Signs of pregnancy
 - (c) Discomforts during pregnancy
 - (d) Physical and psychological care
 - (e) Diet during pregnancy
2. Preparation for delivery at home and in the Hospital
3. Feeding
 - (a) Breast feeding
 - (b) Artificial feeding
 - (c) Weaning
4. Care of Child
 - (a) Clothing
 - (b) Bathing
 - (c) Value of regular habits, rest and exercise
5. Common ailments of children
 - (a) Common cold
 - (b) Digestive trouble (Vomiting, Diarrhoea and Colic)
 - (c) Skin trouble (Prickly heat and Eczema)
 - (d) Teething problems
6. Recreation for young children

- (a) Toys
- (b) Different play material
- (c) Nursery rhymes
- (d) Selection of books for children

STRUCTURE OF QUESTION PAPER (PRACTICAL)

Time : 3 Hours

Marks: 30

There should not be more than 25 candidates in a group. The Practical question paper will consist of two sections. Distribution of Marks will be as follows:

Viva Voce, Notebook & Record 10 Marks

Section -A (Foods & Nutrition)

- 1. Any one preparation from practicals 3, 4 & 5 05 Marks
- 2. Any one preparation from practicals 6 & 7 05 Marks

Section-B (Child Development & Mother Craft)

- 3. Any one practical from practicals 3, 5 & 6 05 Marks
- 4. Any one preparation from practicals 7 & 8 05 Marks

SYLLABUS (PRACTICAL)

SECTION-A (Foods and Nutrition)

- 1. Market Surveys to collect following data- cost & availability of cereals, pulses, sugar, oils, fats, butter, bread, eggs, preserves, processed foods, vegetables, fruits, milk, meat, fish, poultry etc.
- 2. Weighing and measuring of raw and cooked food, Weight equivalents.
- 3. Planning & preparation of dishes
 - (a) Rich in proteins e.g Whole Dal preparation & groundnut preparation
 - (b) For enhancing Nutritive value
 - i Cereal & Pulse combination e.g Missi Roti & Khichri
 - ii Cereal, Pulse, Vegetable combination e.g Nutritious Chapatti.
 - iii Fermented Food e.g Dosa, Bhatura, Idli
 - iv Germinated Pulse preparation of sprouted Whole Moong Dal
- 4. Breakfast, Lunch and Dinner Dishes by preparation of cereals, legumes, vegetables, eggs, Chapati or Puri, Plain Rice or Vegetable Pulao, Rajmah, Meat Curry or Egg Curry and seasonal vegetables.
- 5. Desserts:
 - (a) Indian Kheer (of any type) and Halwa
 - (b) Western- Custard (Plain or Fruit)
 - (c) Steamed Custard
- 6. Snacks- Pakora, Cutlets and Simple cake.
- 7. Chutneys-Tomato or Mango chutney, any one Squash and one Jam
- 8. Planning for packed lunch (School children) by using above Preparations only.

SECTION-B

(Child Development and Mother Craft)

- 1 Four visits to children ward, health centre, baby welfare club and hospital or sick room to observe healthy and sick children and note the difference.
- 2 Immunization of infants and children
 - B.C.G.
 - Polio
 - D.P.T
 - Typhoid and Measles
 - Hepatitis
- 3 Preparation and folding of two types of Diapers.
- 4 Preparation of two toys /play material
- 5 Disinfection of children's clothes
- 6 Sterilization of feeding bottles
- 7 Weaning foods e.g. orange juice, tomato soup, suji Kheer and custard
- 8 Preparation of Diets during Diarrhoea and Dysentery e.g preparation of whey, Soup, Apple stew and Khichri.

Class-XII
37. MODELLING AND SCULPTURE

ਮਾਡਲਿੰਗ ਅਤੇ ਬੁੱਤਕਾਰੀ

ਸਮਾਂ: 8 ਘੰਟੇ

ਪ੍ਰਯੋਗੀ: 70 ਅੰਕ

ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ

ਕੁੱਲ: 100 ਅੰਕ

- ਨੋਟ:-** 1. ਇਹ ਪੇਪਰ ਪੂਰਨ ਪ੍ਰਯੋਗੀ ਹੈ ਅਤੇ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਰਾਹੀਂ ਬੋਰਡ ਵੱਲੋਂ ਨਿਯਤ ਡੇਟਸ਼ੀਟ ਅਨੁਸਾਰ ਲਿਆ ਜਾਵੇਗਾ।
2. ਮਿੱਟੀ ਜਾਂ ਪੀ.ਓ.ਪੀ. ਪ੍ਰੀਖਿਆਰਥੀ ਖੁਦ ਨਾਲ ਲੈਕੇ ਆਵੇਗਾ।

	ਸਮਾਂ	ਸੈਸ਼ਨ
ਪਹਿਲਾ ਪੇਪਰ	4 ਘੰਟੇ	ਸਵੇਰ
ਦੂਜਾ ਪੇਪਰ	4 ਘੰਟੇ	ਸ਼ਾਮ

Structure of Question Paper

ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

1. ਇਹ ਪੇਪਰ ਪ੍ਰਯੋਗੀ ਡੇਟ ਸ਼ੀਟ ਅਨੁਸਾਰ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਵੱਲੋਂ ਲਿਆ ਜਾਵੇਗਾ। ਇਸਦੇ 30 ਅੰਕ ਹੋਣਗੇ। ਇਹ ਸਵੇਰ ਦੇ ਸੈਸ਼ਨ ਵਿੱਚ ਲਿਆ ਜਾਵੇਗਾ। ਇਸ ਦਾ ਸਮਾਂ ਚਾਰ ਘੰਟੇ ਹੋਵੇਗਾ। ਇਸ ਵਿੱਚ ਪਸ਼ੂ, ਪੰਛੀ, ਜਾਨਵਰ ਅਤੇ ਮਨੁੱਖੀ ਸਰੀਰ ਦੇ ਬੁੱਤ ਤਿਆਰ ਕੀਤੇ ਜਾਣਗੇ।
2. ਦੋਨਾਂ ਸੈਸ਼ਨਾਂ ਦੇ ਵਿਚਕਾਰ ਇੱਕ ਘੰਟੇ ਦੀ ਛੁੱਟੀ ਹੋਵੇਗੀ। ਉਸ ਦੌਰਾਨ ਸੈਸ਼ਨਲ ਵਰਕ ਚੈੱਕ ਕਰਕੇ ਮੁਲਾਂਕਣ ਕੀਤਾ ਜਾਵੇਗਾ।
3. ਦੂਜੇ ਸ਼ਾਮ ਦੇ ਸੈਸ਼ਨ ਵਿੱਚ ਮਨੁੱਖੀ ਸਿਰ ਦਾ ਬੁੱਤ ਤਿਆਰ ਕਰਵਾਇਆ ਜਾਵੇਗਾ। ਇਹ ਕੰਮ ਚਾਰ ਘੰਟੇ ਵਿੱਚ ਪੂਰਾ ਕੀਤਾ ਜਾਵੇਗਾ। ਇਸਦੇ 30 ਅੰਕ ਹੋਣਗੇ।
4. ਸਾਰੇ ਪੇਪਰਾਂ ਦਾ ਮੁਲਾਂਕਣ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਕਰਕੇ ਨੰਬਰ ਸੂਚੀਆਂ ਸਬੰਧਤ ਅਧਿਕਾਰੀ ਨੂੰ ਆਪਣੇ ਹਸਤਾਖਰ ਕਰਕੇ ਮੋਹਰ ਬੰਦ ਲਿਫ਼ਾਫ਼ੇ ਵਿੱਚ ਭੇਜੇਗਾ।

ਨੋਟ:- ਮਿੱਟੀ ਜਾਂ ਪੀ.ਓ.ਪੀ. ਪ੍ਰੀਖਿਆਰਥੀ ਖੁਦ ਨਾਲ ਲੈਕੇ ਆਵੇਗਾ।

ਪਾਠ-ਕ੍ਰਮ

ਭਾਗ-1

ਬਨਾਵਟ

ਅੰਕ: 30

1. ਮਿੱਟੀ ਜਾਂ ਪਲਾਸਟਰ ਆਫ ਪੈਰਿਸ (P.O.P) ਦੁਆਰਾ ਪੰਛੀ, ਜਾਨਵਰ ਅਤੇ ਮਨੁੱਖੀ ਸਰੀਰ ਦੇ ਬੁੱਤ ਤਿਆਰ ਕਰਨੇ।

ਭਾਗ-II

ਪੋਰਟਰੇਟ ਸਟਡੀ (Portrait Study)

ਅੰਕ: 30

1. ਮਨੁੱਖੀ ਸਿਰ ਦਾ ਮਿੱਟੀ ਜਾਂ ਪਲਾਸਟਰ ਆਫ ਪੈਰਿਸ (P.O.P) ਦੁਆਰਾ ਬੁੱਤ ਤਿਆਰ ਕਰਨਾ। ਜਿਸ ਵਿੱਚ ਚਿਹਰੇ ਦਾ ਅਨੁਭਵ ਪ੍ਰਗਟ ਹੋਵੇ।

ਭਾਗ-III

ਸੈਸ਼ਨਲ ਵਰਕ

ਅੰਕ: 10

ਸਾਰੇ ਸਾਲ ਵਿੱਚ ਤਿਆਰ ਕੀਤੀਆਂ ਘੱਟੋ-ਘੱਟ ਵੀਹ ਵਸਤੂਆਂ ਜੋ ਕਿ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਚੈੱਕ ਕਰੇਗਾ ਅਤੇ ਅੰਕ ਲਾਵੇਗਾ।

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਦੁਆਰਾ ਵਿਸ਼ੇ ਸਬੰਧੀ ਜੁਬਾਨੀ ਪ੍ਰਸ਼ਨ ਵੀ ਪੁੱਛੇ ਜਾ ਸਕਦੇ ਹਨ।

38. ਜਿਊਮੈਟਰੀਕਲ ਪਰਸਪੈਕਟਿਵ ਅਤੇ ਆਰਕੀਟੈਕਚਰਲ ਡਰਾਇੰਗ

ਸਮਾਂ: 4 ਘੰਟੇ

ਥਿਊਰੀ: 70 ਅੰਕ

ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ

ਕੁੱਲ: 100 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ-ਰੇਖਾ

ਭਾਗ - 1 (ਜਿਊਮੈਟਰੀਕਲ ਅਤੇ ਵਿੱਥ ਸੋਝੀ ਡਰਾਇੰਗ)

ਅੰਕ: 35

ਜਿਊਮੈਟਰੀਕਲ ਡਰਾਇੰਗ:

ਅੰਕ: 10

ਪੇਪਰ ਸੈਂਟਰ ਇਸ ਭਾਗ ਵਿੱਚ ਚਾਰ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕਰੇਗਾ ਜੋ 5-5 ਅੰਕਾਂ ਦੇ ਹੋਣਗੇ। ਜਿਹਨਾਂ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਜ਼ਰੂਰੀ ਹੋਣਗੇ। ਇਸ ਭਾਗ ਵਿੱਚ ਤਿਕੋਣਾਂ, ਵਰਗ, ਆਇਤ, ਪਤੰਗਰੂਪੀ ਚਤੁਰਭੁਜ, ਸਮਾਨਾਂਤਰ ਚਤੁਰਭੁਜ, ਚੱਕਰਾਂ ਸੰਬੰਧੀ ਪ੍ਰਸ਼ਨ, ਬਹੁਭੁਜਾਂ ਅਤੇ ਤਿਕੋਣ, ਵਰਗ, ਚੱਕਰ ਤੇ ਅੰਤਰੀ ਅਤੇ ਬਾਹਰੀ ਪ੍ਰਸ਼ਨਾਂ ਸੰਬੰਧੀ ਪ੍ਰਸ਼ਨ ਅਤੇ ਚੱਕਰੀ ਵਿੱਧੀ ਦੁਆਰਾ ਅੰਡਕਾਰ ਬਣਾਉਣ ਦੇ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।

ਠੋਸ ਅਤੇ ਨਿੱਗਰ ਜਿਊਮੈਟਰੀ:

ਇਸ ਭਾਗ ਵਿੱਚ ਇੱਕ ਹੀ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕੀਤਾ ਜਾਵੇਗਾ ਉਹ ਹੀ ਕਰਨਾ ਜ਼ਰੂਰੀ ਹੋਵੇਗਾ। ਇਸ ਵਿੱਚ ਠੋਸ ਜਿਵੇਂ ਘਣ ਖੇਤਰ, ਮੀਨਾਰ, ਘਣ, ਬੇਲਣ, ਸ਼ੰਕੂ, ਗੋਲਾ ਅਤੇ ਚੌ ਮੁੱਖਾ ਦੇ ਤਲ ਅਤੇ ਮੱਥਾ ਬਣਾਉਣ ਦੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਠੋਸਾਂ ਦੇ ਕਾਟ ਸੰਬੰਧੀ ਪ੍ਰਸ਼ਨ ਵੀ ਆਉਣਗੇ। ਇਹ ਪ੍ਰਸ਼ਨ ਪੰਜ ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ।

ਵਿੱਥ ਸੋਝੀ ਡਰਾਇੰਗ:

ਇਸ ਭਾਗ ਵਿੱਚ ਇੱਕ ਹੀ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕੀਤਾ ਜਾਵੇਗਾ ਜੋ ਕਰਨਾ ਜ਼ਰੂਰੀ ਹੋਵੇਗਾ। ਇਸਦੇ ਵੀਹ ਅੰਕ ਹੋਣਗੇ। ਇਸ ਵਿੱਚ ਘਣ, ਚੌਕੀ, ਪਟੜਾ, ਡਰਾਇੰਗ ਬੋਰਡ ਦੇ ਵਿੱਥ ਸੋਝੀ ਚਿੱਤਰ ਬਣਾਉਣੇ ਹੋਣਗੇ। ਜਿਹਨਾਂ ਦੀ ਮਿਣਤੀ ਪੇਪਰ ਸੈਂਟਰ ਵੱਲੋਂ ਦਿੱਤੀ ਜਾਵੇਗੀ।

ਅੰਕਾਂ ਦੀ ਵੰਡ:-

ਵਿੱਥ ਸੋਝੀ ਦੀ ਬਣਾਵਟ = 10 ਅੰਕ

ਠੀਕ ਮਿਣਤੀਆਂ ਅਤੇ ਠੀਕ ਡਰਾਇੰਗ = 05 ਅੰਕ

ਸਕੇਲ ਡਰਾਇੰਗ = 03 ਅੰਕ

ਹਲਕੀਆਂ ਤੇ ਗੂੜ੍ਹੀਆਂ ਰੇਖਾਵਾਂ = 02 ਅੰਕ

ਕੁੱਲ = 20 ਅੰਕ

ਭਾਗ - 2

ਅੰਕ: 35

ਆਰਕੀਟੈਕਚਰਲ ਡਰਾਇੰਗ:

ਇਸ ਭਾਗ ਵਿੱਚ ਪੇਪਰ ਸੈਂਟਰ ਵੱਲੋਂ ਦਿੱਤੇ ਗਏ ਦੋ ਮੰਜ਼ਿਲੇ ਮਕਾਨ ਦਾ ਮੱਥਾ, ਪਾਸਾ ਅਤੇ ਤਲ ਬਣਾਇਆ ਜਾਵੇਗਾ।

ਅੰਕਾਂ ਦੀ ਵੰਡ:-

ਮੱਥਾ (ELEVATION) = 10 ਅੰਕ

ਪਾਸਾ (SIDE) = 10 ਅੰਕ

ਤਲ (PLAN) = 10 ਅੰਕ

ਲਿਖਾਈ ਅਤੇ ਪੈਮਾਨਾ (W&S) = 05 ਅੰਕ

ਕੁੱਲ = 35 ਅੰਕ

ਭਾਗ - 2

ਅੰਕ: 35

ਆਰਕੀਟੈਕਚਰਲ ਡਰਾਇੰਗ:

ਇਸ ਭਾਗ ਵਿੱਚ ਪੇਪਰ ਸੈਂਟਰ ਵੱਲੋਂ ਦਿੱਤੇ ਗਏ ਦੋ ਮੰਜ਼ਿਲੇ ਮਕਾਨ ਦਾ ਮੱਥਾ, ਪਾਸਾ ਅਤੇ ਤਲ ਬਣਾਇਆ ਜਾਵੇਗਾ।

ਅੰਕਾਂ ਦੀ ਵੰਡ:-

ਮੱਥਾ (ELEVATION) = 10 ਅੰਕ

ਪਾਸਾ (SIDE) = 10 ਅੰਕ

ਤਲ (PLAN) = 10 ਅੰਕ

ਲਿਖਾਈ ਅਤੇ ਪੈਮਾਨਾ (W&S) = 05 ਅੰਕ

ਕੁੱਲ = 35 ਅੰਕ

(ਪਾਠ-ਕ੍ਰਮ)
ਜਿਊਮੈਟਰੀਕਲ, ਵਿੱਥ ਸੋਝੀ ਅਤੇ ਆਰਕੀਟੈਕਚਰਲ ਡਰਾਈਂਗ

ਸਮਾਂ: 4 ਘੰਟੇ

ਅੰਕ:100

ਅੰਕਾਂ ਦੀ ਵੰਡ

ਬਿਊਰੀ	ਅੰਕ:70
ਪਾਸ ਅੰਕ	ਅੰਕ:23
ਸੀ. ਸੀ. ਈ.	ਅੰਕ:30
ਪਾਸ ਅੰਕ	ਅੰਕ:10
ਕੁੱਲ ਅੰਕ	ਅੰਕ:100
ਪਾਸ ਅੰਕ	ਅੰਕ:33

ਭਾਗ-1

Geometrical and Perspective Drawing

ਜਿਊਮੈਟਰੀਕਲ ਅਤੇ ਵਿੱਥ ਸੋਝੀ ਡਰਾਈਂਗ

ਅੰਕ:35

1. ਜਿਊਮੈਟਰੀਕਲ ਡਰਾਈਂਗ

ਅੰਕ:10

ਨੋਟ:- ਇਸ ਭਾਗ ਵਿੱਚ ਚਾਰ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ।

- (i) ਤਿਕੋਣਾਂ ਦੀ ਬਨਾਵਟ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ ਜਿਸ ਵਿੱਚ ਆਧਾਰ, ਉਚਾਈ, ਆਧਾਰ ਕੋਣ ਅਤੇ ਸ਼ੀਰਸ਼ ਕੋਣ ਦਿੱਤੇ ਹੋਣ।
- (ii) ਵਰਗ, ਆਇਤ, ਪਤੰਗ ਰੂਪੀ ਚਤੁਰਭੁਜ ਅਤੇ ਸਮਾਨੰਤਰ ਚਤੁਰਭੁਜ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ
- (iii) ਚੱਕਰ ਦੀਆਂ ਛੋਹਤ ਰੇਖਾਵਾਂ ਅਤੇ ਚੱਕਰ ਦੇ ਅੰਦਰ ਅਤੇ ਬਾਹਰ ਚੱਕਰ ਖਿੱਚਣ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ।
- (iv) ਅੰਤਰੀ ਅਤੇ ਬਾਹਰੀ ਆਕਾਰਾਂ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ। ਜਿਵੇਂ ਤਿਕੋਣ, ਵਰਗ ਸਮਾਨੰਤਰ ਚਤੁਰਭੁਜ, ਸਮ ਪੰਜਭੁਜ, ਸਮ ਛੇਭੁਜ, ਸਮ ਅੱਠਭੁਜ ਦੇ ਅੰਦਰ ਅਤੇ ਬਾਹਰ ਸਮਰੂਪੀ ਆਕਾਰ ਬਣਾਉਣੇ।
- (v) ਚੱਕਰੀ ਵਿਧੀ ਦੁਆਰਾ ਅੰਡਕਾਰ (Ellipse) ਬਣਾਉਣੇ। ਜਿਹਨਾਂ ਦਾ ਵੱਡਾ ਅਤੇ ਛੋਟਾ ਧੁਰਾ ਦਿੱਤਾ ਗਿਆ ਹੈ।

2. ਠੋਸ ਅਤੇ ਨਿੱਗਰ ਜਿਊਮੈਟਰੀ

ਅੰਕ:5

ਠੋਸ ਜਿਵੇਂ ਘੱਟ ਖੇਤਰ, ਮੀਨਾਰ, ਘਣ, ਬੇਲਣ, ਸ਼ੰਕੂ, ਗੋਲਾ ਅਤੇ ਚੌਮੁੱਖਾ ਦੇ ਤਲ ਅਤੇ ਮੱਥਾ ਬਣਾਉਣੇ। ਜਦ ਕਿ ਇਹ XY ਰੇਖਾ ਦੇ ਸਮਾਨੰਤਰ ਅਤੇ XY ਰੇਖਾ ਨਾਲ ਦਿੱਤਾ ਹੋਇਆ ਕੋਣ ਬਣਾਉਂਦੇ ਹੋਣ।
ਲੇਟਵੀਂ ਧਰਾਤਲ ਅਤੇ ਖੜੀ ਧਰਾਤਲ ਵੱਲੋਂ ਠੋਸ ਦੇ ਕੱਟਵੇਂ ਰੂਪ ਦੇ ਤਲ ਅਤੇ ਮੱਥਾ ਬਣਾਉਣੇ।
ਠੋਸ ਜਿਹਨਾਂ ਦੇ ਪ੍ਰਸ਼ਨ ਪ੍ਰੀਖਿਆ ਵਿੱਚ ਆਉਣਗੇ ਉਹ ਤਿਕੋਣ, ਵਰਗ, ਬਹੁਭੁਜਾ ਅਤੇ ਚੱਕਰ ਹਨ।

3. ਵਿੱਥ ਸੋਝੀ ਡਰਾਈਂਗ (Perspective Drawing) (ਜਰੂਰੀ)

ਅੰਕ:20

ਕਿਸੇ ਘਣ, ਚੌਕੀ ਅਤੇ ਪਟੜੇ ਅਤੇ ਡਰਾਈਂਗ ਬੋਰਡ ਦਾ ਵਿੱਥ ਸੋਝੀ ਚਿੱਤਰ ਬਣਾਉਣਾ ਜਿਸ ਦੀਆਂ ਮਿਣਤੀਆਂ ਲੰਬਾਈ, ਚੌੜਾਈ ਅਤੇ ਉਚਾਈ ਦਿੱਤੀਆਂ ਹੋਈਆਂ ਹੋਣ।

ਕਾਰਗਜ਼ ਦਾ ਸਾਈਜ਼:- 1/4 ਭਾਗ (35ਸੈ: ਮੀ:×25ਸੈ: ਮੀ:)

ਭਾਗ-II

Architectural Drawing

(ਆਰਕੀਟੈਕਚਰਲ ਡਰਾਈਂਗ) (ਜਰੂਰੀ)

ਅੰਕ:35

ਦਿੱਤੇ ਹੋਏ ਦੋ ਮੰਜ਼ਲੇ ਮਕਾਨ ਦਾ ਮੱਥਾ, ਪਾਸਾ ਅਤੇ ਤਲ ਬਣਾਉਣਾ। ਮਕਾਨ ਵਿੱਚ ਰਸੋਈ, ਗੁਸਲਖਾਨਾ ਸ਼ਾਮਲ ਹੋਵੇ।

ਕਾਰਗਜ਼ ਦਾ ਸਾਈਜ਼:- 1/2 ਭਾਗ (50ਸੈ: ਮੀ:×35ਸੈ: ਮੀ:)

ਨੋਟ:- ਇਹ ਪੇਪਰ ਪ੍ਰੀਖਿਆ ਭਵਨ ਵਿੱਚ ਆਮ ਪੇਪਰਾਂ ਵਾਂਗ ਸੁਪਰਡੰਟ ਵੱਲੋਂ ਲਿਆ ਜਾਵੇਗਾ।

Class-XII
39. COMMERCIAL ART

ਕਮਰਸ਼ੀਅਲ ਆਰਟ

ਸਮਾਂ: 8 ਘੰਟੇ

ਪ੍ਰਯੋਗੀ: 70 ਅੰਕ

ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ

ਕੁੱਲ: 100 ਅੰਕ

ਨੋਟ: ਇਹ ਪੇਪਰ ਪੂਰਨ ਪ੍ਰਯੋਗੀ ਹੈ ਅਤੇ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਰਾਹੀਂ ਬੋਰਡ ਵੱਲੋਂ ਨਿਯਤ ਡੇਟਸ਼ੀਟ ਅਨੁਸਾਰ ਲਿਆ ਜਾਵੇਗਾ।

	ਸਮਾਂ	ਸੈਸ਼ਨ
ਪਹਿਲਾ ਪੇਪਰ	4 ਘੰਟੇ	ਸਵੇਰ
ਦੂਜਾ ਪੇਪਰ	4 ਘੰਟੇ	ਸ਼ਾਮ

ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

1. ਇਹ ਪੇਪਰ ਪ੍ਰਯੋਗੀ ਡੇਟ ਸ਼ੀਟ ਅਨੁਸਾਰ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਵੱਲੋਂ ਲਿਆ ਜਾਵੇਗਾ। ਪਹਿਲੇ ਸਵੇਰ ਦੇ ਸੈਸ਼ਨ ਵਿੱਚ ਲੇ-ਆਊਟ ਡਿਜ਼ਾਈਨਿੰਗ ਸਬੰਧੀ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ। ਇਹ ਪੇਪਰ ਚਾਰ ਘੰਟੇ ਦਾ ਹੋਵੇਗਾ। ਇਸਦੇ ਕੁੱਲ 30 ਅੰਕ ਹੋਣਗੇ। ਇਸ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕਰਨੇ ਹੋਣਗੇ। ਵਿਦਿਆਰਥੀ ਵੱਲੋਂ ਕੋਈ ਇੱਕ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨਾ ਹੋਵੇਗਾ।
2. ਦੂਜੇ ਸ਼ਾਮ ਦੇ ਸੈਸ਼ਨ ਵਿੱਚ ਪੋਸਟਰ ਡਿਜ਼ਾਈਨਿੰਗ ਦਾ ਪੇਪਰ ਹੋਵੇਗਾ। ਇਹ ਪੇਪਰ ਵੀ ਉਪਰੋਕਤ ਅਨੁਸਾਰ 30 ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ। ਇਸ ਦਾ ਸਮਾਂ ਚਾਰ ਘੰਟੇ ਹੋਵੇਗਾ। ਇਸ ਵਿੱਚ ਕੋਈ ਦੋ ਪ੍ਰਸ਼ਨ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ। ਪ੍ਰੀਖਿਆਰਥੀ ਵੱਲੋਂ ਕੋਈ ਇੱਕ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨਾ ਹੋਵੇਗਾ।
3. ਵਿਚਕਾਰ ਇੱਕ ਘੰਟੇ ਦੇ ਸਮੇਂ ਵਿੱਚ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ, ਪ੍ਰੀਖਿਆਰਥੀਆਂ ਦੇ ਸੈਸ਼ਨਲ ਕੰਮ ਦਾ ਮੁਲਾਂਕਣ ਕਰੇਗਾ। ਇਸਦੇ 10 ਅੰਕ ਹੋਣਗੇ।
4. ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਸਾਰੇ ਪੇਪਰਾਂ ਦਾ ਮੁਲਾਂਕਣ ਕਰਕੇ ਨੰਬਰ ਸੂਚੀਆਂ ਸਬੰਧਤ ਅਧਿਕਾਰੀ ਨੂੰ ਮੋਹਰ ਬੰਦ ਲਿਫਾਫੇ ਵਿੱਚ ਭੇਜੇਗਾ।
5. ਡਰਾਈਂਗ ਸ਼ੀਟਾਂ ਅਤੇ ਪੇਟਿੰਗ ਦਾ ਹੋਰ ਸਾਰਾ ਸਮਾਨ ਪ੍ਰੀਖਿਆਰਥੀ ਖੁਦ ਨਾਲ ਲੈ ਕੇ ਆਵੇਗਾ।

ਪਾਠ-ਕ੍ਰਮ

ਭਾਗ-1

ਲੇ-ਆਊਟ ਡਿਜ਼ਾਈਨਿੰਗ

ਅੰਕ: 30

1. ਕਾਲੇ ਅਤੇ ਚਿੱਟੇ ਰੰਗਾਂ ਵਿੱਚ ਲੈਟਰ ਪੈਡ ਤਿਆਰ ਕਰਨਾ।
2. ਮੈਗਜ਼ੀਨ ਕਵਰ ਜਾਂ ਬੁੱਕ ਕਵਰ ਰੰਗਾਂ ਦੁਆਰਾ ਤਿਆਰ ਕਰਨੇ।
3. ਸਾਧਾਰਨ ਮੋਨੋ ਗ੍ਰਾਮ ਬਣਾਉਣੇ।

ਪੇਪਰ ਦਾ ਮਾਪ:- ਪੂਰੇ ਪੇਪਰ ਦਾ $1/4$ ਭਾਗ (35 ਸੈਂ: ਮੀ:×25ਸੈਂ: ਮੀ:)

ਭਾਗ-II

ਪੋਸਟਰ ਡਿਜ਼ਾਈਨਿੰਗ

ਅੰਕ: 30

1. ਦਿੱਤੇ ਹੋਏ ਵਿਸ਼ੇ ਤੇ ਲਿਖਾਈ ਕਰਕੇ ਪੋਸਟਰ ਤਿਆਰ ਕਰਨੇ ਅਤੇ ਸਬੰਧਤ ਰੰਗਾਂ ਨਾਲ ਸਜਾਉਣਾ।
2. ਛੋਟੇ ਬੱਚਿਆਂ ਦੀਆਂ ਪੁਸਤਕਾਂ ਦੇ ਕਵਰ ਤਿਆਰ ਕਰਨੇ। ਇਹ ਕਵਰ ਕਾਲੇ, ਚਿੱਟੇ ਜਾਂ ਰੰਗਦਾਰ ਤਿਆਰ ਕੀਤੇ ਜਾ ਸਕਦੇ ਹਨ।

ਪੇਪਰ ਦਾ ਮਾਪ:- ਪੂਰੇ ਪੇਪਰ ਦਾ $1/4$ ਭਾਗ (35ਸੈਂ: ਮੀ:×25ਸੈਂ: ਮੀ:)

ਭਾਗ-III

ਅੰਕ: 10

ਸੈਸ਼ਨਲਵਰਕ:- ਸਾਰੇ ਸਾਲ ਵਿੱਚ ਤਿਆਰ ਕੀਤੀਆਂ ਘੱਟੋ-ਘੱਟ ਵੀਹ ਆਈਟਮਾਂ ਜੋ ਕਿ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਚੈਕ ਕਰੇਗਾ ਅਤੇ ਅੰਕ ਲਾਵੇਗਾ।

ਨੋਟ:- ਡਰਾਈਂਗ ਸ਼ੀਟਾਂ ਅਤੇ ਪੇਟਿੰਗ ਦਾ ਹੋਰ ਸਾਰਾ ਸਮਾਨ ਪ੍ਰੀਖਿਆਰਥੀ ਖੁਦ ਲੈ ਕੇ ਆਵੇਗਾ।

Class-XII
40. DRAWING AND PAINTING

ਡਰਾਈਂਗ ਅਤੇ ਚਿੱਤਰਕਲਾ

ਸਮਾਂ: 8 ਘੰਟੇ

ਪ੍ਰਯੋਗੀ: 70 ਅੰਕ

ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ

ਕੁੱਲ: 100 ਅੰਕ

ਨੋਟ: ਇਹ ਪੇਪਰ ਪੂਰਨ ਪ੍ਰਯੋਗੀ ਹੈ ਅਤੇ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਰਾਹੀਂ ਬੋਰਡ ਵੱਲੋਂ ਨਿਯਤ ਡੇਟਸ਼ੀਟ ਅਨੁਸਾਰ ਲਿਆ ਜਾਵੇਗਾ।

	ਸਮਾਂ	ਸੈਸ਼ਨ
ਪਹਿਲਾ ਪੇਪਰ	4 ਘੰਟੇ	ਸਵੇਰ
ਦੂਜਾ ਪੇਪਰ	4 ਘੰਟੇ	ਸ਼ਾਮ

STRUCTURE OF QUESTION PAPER

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

1. ਇਹ ਪੇਪਰ ਪ੍ਰਯੋਗੀ ਡੇਟਸ਼ੀਟ ਅਨੁਸਾਰ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਵੱਲੋਂ ਲਿਆ ਜਾਵੇਗਾ। ਪਹਿਲਾਂ ਸਵੇਰ ਦੇ ਸੈਸ਼ਨ ਵਿੱਚ ਸਕੈਚਿੰਗ, ਫੁੱਲਾਂ ਦੀ ਚਿੱਤਰਕਾਰੀ, ਡਿਜ਼ਾਈਨ ਅਤੇ ਕੁਦਰਤੀ ਦ੍ਰਿਸ਼ ਦਾ ਪੇਪਰ ਲਿਆ ਜਾਵੇਗਾ। ਇਸਦਾ ਸਮਾਂ ਚਾਰ ਘੰਟੇ ਹੋਵੇਗਾ। ਕੋਈ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਹੋਵੇਗਾ। ਇਸਦੇ 30 ਅੰਕ ਹੋਣਗੇ।
2. ਸ਼ਾਮ ਦੇ ਸੈਸ਼ਨ ਵਿੱਚ ਮਾਡਲ ਡਰਾਈਂਗ (Still Life) ਦਾ ਪੇਪਰ ਹੋਵੇਗਾ। ਮਾਡਲ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਵੱਲੋਂ ਸੈੱਟ ਕੀਤਾ ਜਾਵੇਗਾ। ਮਾਡਲ ਦੇ ਪਿੱਛੇ ਡਰਾਪਰੀ (ਪਰਦਾ) ਸੈੱਟ ਕੀਤੀ ਜਾਵੇਗੀ। ਮਾਡਲ ਦਾ ਸਮਾਨ ਕੇਂਦਰ ਕੰਟਰੋਲਰ ਵੱਲੋਂ ਉਪਲੱਬਧ ਕਰਵਾਇਆ ਜਾਵੇਗਾ। ਇਸਦਾ ਸਮਾਂ ਚਾਰ ਘੰਟੇ ਹੋਵੇਗਾ। ਇਸਦੇ 30 ਅੰਕ ਹੋਣਗੇ।
3. ਵਿਚਕਾਰ ਇੱਕ ਘੰਟੇ ਦੇ ਸਮੇਂ ਵਿੱਚ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ, ਪ੍ਰੀਖਿਆਰਥੀ ਦੇ ਸੈਸ਼ਨਲ ਕੰਮ ਦਾ ਮੁਲਾਂਕਣ ਕਰੇਗਾ। ਇਸਦੇ 10 ਅੰਕ ਹੋਣਗੇ। ਪ੍ਰੀਖਿਅਕ ਕੀਤੇ ਕੰਮ ਅਨੁਸਾਰ ਅੰਕ ਦੇਵੇਗਾ।
4. ਸਾਰੇ ਪੇਪਰ ਦਾ ਮੁਲਾਂਕਣ ਕਰਕੇ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਨੰਬਰ ਸੂਚੀਆਂ ਸਬੰਧਤ ਅਧਿਕਾਰੀ ਨੂੰ ਆਪਣੇ ਹਸਤਾਖਰ ਕਰਕੇ ਭੇਜੇਗਾ।

ਨੋਟ:- ਡਰਾਈਂਗ ਸ਼ੀਟਾਂ ਅਤੇ ਪੇਟਿੰਗ ਦਾ ਹੋਰ ਸਾਰਾ ਸਮਾਨ ਪ੍ਰੀਖਿਆਰਥੀ ਖੁਦ ਲੈ ਕੇ ਆਵੇਗਾ।

ਪਾਠ-ਕ੍ਰਮ

ਭਾਗ-1 ਸਕੈਚਿੰਗ ਅਤੇ ਬਨਾਵਟ

ਅੰਕ: 30

ਮਨੁੱਖੀ ਸਰੀਰ, ਜਾਨਵਰ, ਪਸ਼ੂ ਅਤੇ ਪੰਛੀਆਂ ਦੇ ਕੁਦਰਤੀ ਦ੍ਰਿਸ਼ ਅਤੇ ਚਿੱਤਰ ਬਣਾਉਣੇ।

ਜਾਂ

ਇੱਕ ਫੁੱਲਦਾਨ ਵਿੱਚ ਫੁੱਲ ਇੱਕਠੇ ਕਰਕੇ ਇਹਨਾਂ ਦੀ ਚਿੱਤਰਕਾਰੀ ਕਰਨੀ।

ਜਾਂ

ਕੋਈ ਕੁਦਰਤੀ ਦ੍ਰਿਸ਼ ਬਣਾਉਣਾ ਜਿਸ ਵਿੱਚ ਦਰਿਆ ਝੀਲ, ਘਰ, ਚੌਪੜੀ, ਦਰਖਤ, ਪਹਾੜ ਅਤੇ ਅਸਮਾਨ ਦਰਸਾਏ ਜਾਣ,।

ਜਾਂ

ਕੋਈ ਆਲ ਓਵਰ ਪੈਟਰਨ, ਸਾੜੀ ਬਾਡਰ, ਪਰਦਾ ਅਤੇ ਸਿਰਹਾਣੇ ਦਾ ਨਮੂਨਾ ਬਣਾਉਣਾ।

ਪੇਪਰ ਦਾ ਮਾਪ :- 1/4 ਭਾਗ (35 ਸੈਂ:ਮੀ: × 25 ਸੈਂ:ਮੀ:)

ਭਾਗ-II ਮਾਡਲ ਡਰਾਈਂਗ (Still Life)

ਅੰਕ: 30

ਕਿਸੇ ਚਾਰ ਵਸਤੂਆਂ ਦਾ ਚਿੱਤਰਨ ਕਰਨਾ ਅਤੇ ਇਨ੍ਹਾਂ ਵਸਤੂਆਂ ਦੇ ਪਿੱਛੇ ਡਰਾਪਰੀ (ਪਰਦਾ) ਹੋਵੇ।

ਪੇਪਰ ਦਾ ਮਾਪ :- 1/2 ਭਾਗ (35 ਸੈਂ:ਮੀ: × 55 ਸੈਂ:ਮੀ:)

ਮਾਧਿਅਮ : ਪੇਂਟਲ, ਪਾਣੀ ਜਾਂ ਤੇਲ ਵਾਲੇ ਰੰਗ

ਭਾਗ -III

ਅੰਕ: 10

ਸੈਸ਼ਨਲ ਵਰਕ:- ਸਾਰੇ ਸਾਲ ਵਿੱਚ ਤਿਆਰ ਕੀਤੀਆਂ ਘੱਟੋ-ਘੱਟ ਵੀਹ ਆਈਟਮਾਂ ਜੋ ਕਿ ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਅਕ ਚੈੱਕ ਕਰੇਗਾ ਅਤੇ ਅੰਕ ਲਾਵੇਗਾ।

ਨੋਟ:- ਡਰਾਈਂਗ ਸ਼ੀਟਾਂ ਅਤੇ ਪੇਟਿੰਗ ਦਾ ਹੋਰ ਸਾਰਾ ਸਮਾਨ ਪ੍ਰੀਖਿਆਰਥੀ ਖੁਦ ਲੈ ਕੇ ਆਵੇਗਾ।

Class-XII
41. HISTORY AND APPRECIATION OF ART

ਕਲਾ ਦਾ ਇਤਿਹਾਸ ਅਤੇ ਪ੍ਰਸ਼ੰਸਾ

ਸਮਾਂ: 3 ਘੰਟੇ

ਲਿਖਤੀ: 70 ਅੰਕ

ਸੀ.ਸੀ.ਈ.: 30 ਅੰਕ

ਕੁੱਲ: 100 ਅੰਕ

STRUCTURE OF QUESTION PAPER

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

ਇਹ ਪੇਪਰ ਪ੍ਰੀਖਿਆ ਭਵਨ ਵਿੱਚ ਬਾਕੀ ਬਿਊਰੀ ਪੇਪਰਾਂ ਵਾਂਗ ਕੇਂਦਰ ਸੁਪਰਡੰਟ ਵੱਲੋਂ ਲਿਆ ਜਾਵੇਗਾ।

ਇਸ ਪੇਪਰ ਦੇ ਦੋ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿੱਚ ਪੰਜ ਪ੍ਰਸ਼ਨ ਅਤੇ ਦੂਜੇ ਭਾਗ ਵਿੱਚ ਵੀ ਪੰਜ ਪ੍ਰਸ਼ਨ ਪਾਏ ਜਾਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿੱਚੋਂ ਕੋਈ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹਨ ਅਤੇ ਦੂਜੇ ਭਾਗ ਵਿੱਚੋਂ ਕੋਈ ਦੋ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹਨ।

ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 14 ਅੰਕ ਹੋਣਗੇ।

ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਬੋਰਡ ਵੱਲੋਂ ਨਿਰਧਾਰਤ ਕੀਤੇ ਗਏ ਪਾਠਕ੍ਰਮ ਵਿੱਚੋਂ ਹੀ ਹੋਣਗੇ।

ਪੇਪਰ ਸੈਂਟਰ ਵੱਲੋਂ ਪੇਪਰ ਦਾ ਮੁਲਾਂਕਣ ਕਰਨ ਲਈ ਮੁੱਖ ਅਤੇ ਉਪ ਪ੍ਰੀਖਿਅਕਾਂ ਨੂੰ ਹਦਾਇਤਾਂ ਭੇਜੀਆਂ ਜਾਣਗੀਆਂ

ਪਾਠ-ਕ੍ਰਮ

ਭਾਗ-I

ਅੰਕ - 42

1. ਪੱਛਮੀ ਭਾਰਤੀ ਲਘੂ ਚਿੱਤਰਕਾਰੀ
2. ਪੱਛਮੀ ਭਾਰਤੀ ਮਿੰਨੀ ਚਿੱਤਰਾਂ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦੱਸੋ?
3. ਪਾਲ ਸਕੂਲ
4. ਰਾਜਸਥਾਨੀ ਚਿੱਤਰਕਲਾ ਦਾ ਸਕੂਲ
5. ਪਹਾੜੀ ਚਿੱਤਰਕਾਰੀ ਸਕੂਲ
6. ਅਮਰਾਵਤੀ, ਪਲਵਾ, ਚੋਲਾ (ਕਾਂਸੀ), ਚਾਲੁਕਿਅਨ, ਅਲੋਰਾ, ਐਲੀਫੰਟਾ

ਭਾਗ-II

ਅੰਕ - 28

1. ਕਲਾ ਅਤੇ ਸੁੰਦਰਤਾ
2. ਭਾਰਤੀ ਚਿੱਤਰਕਲਾ ਦੇ ਛੇ ਅੰਗ
3. ਇੱਕ ਚੰਗੇ ਕਲਾਕਾਰ ਦੇ ਗੁਣ ਜਾਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ
4. ਕਲਾ ਦੀ ਸਮੱਗਰੀ ਅਤੇ ਤਕਨੀਕ
5. ਸਮਾਜ ਅਤੇ ਕਲਾ
6. ਕਲਾ ਦੇ ਕੰਮ ਦੀ ਪ੍ਰਸ਼ੰਸਾ
7. ਭਾਰਤੀ ਕਲਾ ਦੀ ਕਿਸੇ ਮੁੱਖ ਕਲਾਕ੍ਰਿਤੀ ਦੀ ਪ੍ਰਸ਼ੰਸਾ:-ਸਾਰਨਾਥ ਬੁੱਧ, ਅਸ਼ੋਕ ਸਤੰਭ ਤੇ ਪਸ਼ੂਆਂ ਦੇ ਨਮੂਨੇ, ਨਟਰਾਜ ਕਾਂਸੀ ਮੂਰਤੀ (ਚੋਲਾ)
ਬੁੱਤਕਾਰੀ, ਬੋਧੀ ਸਤਵਾ, ਪਦਮ ਪਾਣੀ (ਅਜੰਤਾ), ਮਾਂ ਤੇ ਬੱਚਾ (ਅਜੰਤਾ), ਸੋਹਣੀ ਮਹੀਵਾਲ (ਸੋਭਾ ਸਿੰਘ), ਆਫਟਰ ਬਾਥ (ਠਾਕੁਰ ਸਿੰਘ)

ਨੋਟ: ਇਹ ਪੇਪਰ ਪ੍ਰੀਖਿਆ ਭਵਨ ਵਿੱਚ ਬਾਕੀ ਬਿਊਰੀ ਪੇਪਰਾਂ ਵਾਂਗ ਕੇਂਦਰ ਸੁਪਰਡੰਟ ਵੱਲੋਂ ਲਿਆ ਜਾਵੇਗਾ।

ਚਿੱਤਰਕਲਾ ਅਤੇ ਬੁੱਤਤਰਾਸ਼ੀ ਸਮੇਤ ਭਾਰਤੀ ਕਲਾ ਦਾ ਇਤਿਹਾਸ

ਸ਼੍ਰੇਣੀ-ਬਾਰੂਵੀਂ
42. ਸਰੀਰਿਕ ਸਿੱਖਿਆ ਅਤੇ ਖੇਡਾਂ

ਬਿਊਰੀ ਲਈ ਸਮਾਂ : 3 ਘੰਟੇ

ਬਿਊਰੀ ਭਾਗ - 30 ਅੰਕ
ਪ੍ਰਯੋਗੀ ਭਾਗ - 40 ਅੰਕ
ਸੀ.ਸੀ.ਈ - 30 ਅੰਕ
ਕੁੱਲ - 100 ਅੰਕ

ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੀ ਰੂਪ ਰੇਖਾ

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਵਿੱਚ ਕੁੱਲ 15 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਅਤੇ ਇਹ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਜ਼ਰੂਰੀ ਹਨ।
2. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 1 ਤੋਂ 8 ਤੱਕ ਇੱਕ-ਇੱਕ ਅੰਕ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ ਅਤੇ ਇਹ ਓਬਜੈਕਟਿਵ ਟਾਈਪ ਵੀ ਹੋ ਸਕਦੇ ਹਨ ਅਤੇ ਇਹਨਾਂ ਦਾ ਉੱਤਰ 10 ਸ਼ਬਦਾਂ ਤੱਕ ਦਾ ਹੋ ਸਕਦਾ ਹੈ।
3. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 9 ਤੋਂ 11 ਤੱਕ ਦੋ-ਦੋ ਅੰਕਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦਾ ਉੱਤਰ ਲਗਭਗ 30 ਸ਼ਬਦਾਂ ਤੱਕ ਹੋ ਸਕਦਾ ਹੈ।
4. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 12 ਤੋਂ 13 ਤੱਕ ਤਿੰਨ-ਤਿੰਨ ਅੰਕਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ। ਜਿਨ੍ਹਾਂ ਦਾ ਉੱਤਰ ਲਗਭਗ 30 ਤੋਂ 50 ਸ਼ਬਦਾਂ ਤੱਕ ਹੋ ਸਕਦਾ ਹੈ।
5. ਪ੍ਰਸ਼ਨ ਨੰਬਰ 14 ਅਤੇ 15 ਪੰਜ-ਪੰਜ ਅੰਕਾਂ ਵਾਲੇ ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ, ਇਹਨਾਂ ਵਿੱਚੋਂ 100% ਅੰਦਰੂਨੀ ਛੋਟ ਹੋਵੇਗੀ।

ਪਾਠਕ੍ਰਮ
ਲਿਖਤੀ ਭਾਗ

ਪਾਠ ਪਹਿਲਾ - ਸਰੀਰਿਕ ਯੋਗਤਾ

- ੳ) ਸਰੀਰਿਕ ਯੋਗਤਾ ਦਾ ਅਰਥ ਅਤੇ ਮਹੱਤਤਾ
- ਅ) ਸਰੀਰਿਕ ਯੋਗਤਾ ਦੇ ਘਟਕ (ਅੰਗ)
- ੲ) ਸਰੀਰਿਕ ਯੋਗਤਾ ਨੂੰ ਪ੍ਰਭਾਵਤ ਕਰਨ ਵਾਲੇ ਕਾਰਕ
- ਸ) ਸਰੀਰਿਕ ਯੋਗਤਾ ਦੇ ਵਿਕਾਸ ਦੇ ਸਿਧਾਂਤ

ਪਾਠ ਦੂਜਾ- ਸਿਖਲਾਈ ਦੀਆਂ ਵਿਧੀਆਂ ਅਤੇ ਹੋਰ ਸਿਧਾਂਤ

- ੳ) ਸਰੀਰ ਨੂੰ ਗਰਮਾਉਣਾ, ਠੰਡਾ ਕਰਨਾ ਅਤੇ ਇਸ ਦੇ ਸਿਧਾਂਤ
- ਅ) ਅਨੁਕੂਲਨ
- ੲ) ਆਈਸੋਮੀਟਰਿਕ, ਆਈਸੋਟੋਨਿਕ ਅਤੇ ਆਈਸੋਕਾਈਨੈਟਿਕ ਕਸਰਤਾਂ
- ਸ) ਸਰਕਟ ਸਿਖਲਾਈ
- ਹ) ਅੰਤਰਾਲ ਸਿਖਲਾਈ ਵਿਧੀ
- ਕ) ਫਾਰਟਲੇਕ ਸਿਖਲਾਈ ਦੀ ਵਿਧੀ
- ਖ) ਵਰਤੋਂ ਜਾਂ ਅਵਰਤੋਂ ਅਤੇ ਵਾਧੂ ਭਾਰਤ ਦਾ ਸਿਧਾਂਤ

ਪਾਠ ਤੀਜਾ - ਸਰੀਰਿਕ ਸਿੱਖਿਆ ਦੇ ਸਮਾਜਿਕ ਪੱਖ

- ੳ) ਵਿਭਿੰਨ ਸਮਾਜਿਕ ਸੰਗਠਨਾਂ ਦਾ ਵਿਅਕਤੀਗਤ ਅਤੇ ਸਮੂਹਿਕ ਵਿਵਹਾਰ ਉੱਪਰ ਪ੍ਰਭਾਵ
- ਅ) ਖੇਡਾਂ ਮਨੁੱਖ ਦਾ ਸਭਿਆਚਾਰਕ ਵਿਰਸਾ
- ੲ) ਸਰੀਰਿਕ ਸਿੱਖਿਆ ਵਿੱਚ ਅਗਵਾਈ ਦੀ ਸਿੱਖਿਆ ਅਤੇ ਇਸ ਦੀ ਮਹੱਤਤਾ
- ਸ) ਖੇਡ-ਕੁੱਦ ਰਾਹੀਂ ਵਿਅਕਤੀ ਅਤੇ ਸਮੂਹਾਂ ਦਾ ਸਮਾਜੀਕਰਨ
- ਹ) ਸਰੀਰਿਕ ਸਿੱਖਿਆ ਰਾਹੀਂ ਰਾਸ਼ਟਰੀ ਏਕਤਾ

ਪਾਠ ਚੌਥਾ ਅਸਮਰੱਥਾ ਦੀ ਰੋਕਥਾਮ ਅਤੇ ਮੁੜ ਵਸੇਵਾ

- ੳ) ਪਰੀਭਾਸ਼ਾ ਅਤੇ ਅਸਮਰੱਥਾ ਦੇ ਵਿਭਿੰਨ ਕਾਰਕ
- ਅ) ਸਾਧਾਰਨ ਕਿੱਤਿਆਂ ਵਿੱਚ ਪੈਦਾ ਹੋਣ ਵਾਲੀ ਅਸਮਰੱਥਾ ਅਤੇ ਕਿੱਤੇ ਸੰਬੰਧੀ ਬਿਮਾਰੀਆਂ
- ੲ) ਅਸਮਰੱਥਾ ਰੋਕਣ ਦੇ ਆਮ ਸਿਧਾਂਤ
- ਸ) ਮੁੜ-ਵਸੇਵਾ (ਪੁਨਰਵਾਸ) ਦੀ ਪਰੀਭਾਸ਼ਾ, ਖੇਤਰ ਅਤੇ ਪੁਨਰਵਾਸ ਲਈ ਉਪਲੱਬਧ ਸੇਵਾਵਾਂ

ਪਾਠ ਪੰਜਵਾਂ ਆਮ ਖੇਡ ਸੱਟਾਂ ਤੋਂ ਬਚਾਓ ਅਤੇ ਮੁੱਢਲੀ ਸਹਾਇਤਾ

- ੳ. ਮੁੱਢਲੀ ਸਹਾਇਤਾ ਦੇ ਅਰਥ ਅਤੇ ਮੁੱਢਲੇ ਸਹਾਇਕ ਦੇ ਗੁਣ
- ਅ. ਮੁੱਢਲੀ ਸਹਾਇਤਾ ਅਤੇ ਫੇਫੜਿਆਂ ਨੂੰ ਪੁਨਰ ਚਾਲੂ ਕਰਨਾ (ਸੀ ਪੀ ਆਰ) ਅਤੇ ਸਿਹਤ ਵਿਗਿਆਨ ਸਮੇਤ ਫੇਫੜਿਆਂ ਤੇ ਦਿਲ ਨੂੰ ਪੁਨਰ ਚਾਲੂ ਕਰਨਾ
- ੲ. ਹੱਡੀ ਟੁੱਟਣ ਅਤੇ ਖਿਸਕਣ ਤੇ ਮੁੱਢਲੀ ਸਹਾਇਤਾ
- ਸ. ਮੋਚ ਅਤੇ ਖਿਚਾਅ ਲਈ ਮੁੱਢਲੀ ਸਹਾਇਤਾ

ਪਾਠ ਛੇਵਾਂ ਪਰਿਵਾਰਿਕ ਜੀਵਨ ਸਬੰਧੀ ਸਿੱਖਿਆ

- ੳ. ਪਰਿਵਾਰ ਦਾ ਅਰਥ, ਕੰਮ ਅਤੇ ਸਮਾਜਿਕ ਸੰਸਥਾਵਾਂ ਦੀ ਉਪਯੋਗਤਾ

- ਅ. ਕਿਸ਼ੋਰ ਅਵਸਥਾ ਦੀਆਂ ਸਮੱਸਿਆਵਾਂ ਅਤੇ ਉਹਨਾਂ ਦਾ ਪ੍ਰਬੰਧ
- ੲ. ਬੱਚਿਆਂ ਦੇ ਕਲਿਆਣ ਵਿੱਚ ਮਾਤਾ- ਪਿਤਾ ਦਾ ਯੋਗਦਾਨ
- ਸ. ਵਿਆਹ ਅਤੇ ਪਰਿਵਾਰਿਕ ਜੀਵਨ ਦੀ ਤਿਆਰੀ

ਪਾਠਕ੍ਰਮ (ਪ੍ਰਯੋਗੀ)

ਸਮਾਂ 4 ਘੰਟੇ

ਪ੍ਰਯੋਗੀ : 40 ਅੰਕ

- ੳ) ਟਰੈਕ ਅਤੇ ਫੀਲਡ ਦੀਆਂ ਈਵੈਂਟਸ (ਲੜਕੇ ਅਤੇ ਲੜਕੀਆਂ ਲਈ) ਹਰੇਕ ਈਵੈਂਟ ਦੇ 7 ਅੰਕ ਹੋਣਗੇ।
ਹੇਠ ਲਿਖਿਆਂ ਵਿੱਚੋਂ ਕੋਈ ਦੋ ਈਵੈਂਟਸ ਇੱਕ ਟਰੈਕ ਵਿੱਚੋਂ ਅਤੇ ਇੱਕ ਫੀਲਡ ਵਿੱਚੋਂ ਚੁਣੀਆਂ ਜਾ ਸਕਦੀਆਂ ਹਨ।
1. ਦੌੜਾਂ - 100 ਮੀਟਰ , 200 ਮੀਟਰ, 400 ਮੀਟਰ ਅਤੇ 800 ਮੀਟਰ, 3000 ਮੀਟਰ।
 2. ਲੜਕੀਆਂ ਲਈ 110 ਮੀਟਰ ਹਰਡਲ (ਹਰਡਲ ਦੀ ਉਚਾਈ 96.4 ਸੈ.ਮੀ. ਅਤੇ 10 ਉਚਾਈਆਂ), ਲੜਕੀਆਂ ਲਈ 100 ਮੀਟਰ ਹਰਡਲ (ਹਰਡਲ ਦੀ ਉਚਾਈ 76.2 ਸੈ.ਮੀ.) ਅਤੇ 8 ਉਚਾਈਆਂ, 4x100 ਮੀਟਰ (ਲੜਕੀਆਂ ਵਾਸਤੇ) ਅਤੇ 4x200 ਮੀਟਰ (ਲੜਕੀਆਂ ਵਾਸਤੇ) ਰਿਲੇਅ।
 3. ਹੈਮਰ ਥਰੋ, ਡਿਸਕਸ ਥਰੋ, ਜੈਵਲਿਨ ਥਰੋ, ਸ਼ਾਟ ਪੁੱਟ,
ਲੌਂਗ ਜੰਪ, ਹਾਈ ਜੰਪ, ਟਰਿੱਪਲ ਜੰਪ, ਬਰਾਡ ਜੰਪ, ਪੋਲਵਾਲਟ, ,
- ਅ) ਹੇਠ ਲਿਖੀਆਂ ਵਿੱਚੋਂ ਕੋਈ ਦੋ ਖੇਡਾਂ ਦੀ ਚੋਣ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ। ਹਰੇਕ ਖੇਡ ਦੇ 5 ਅੰਕ ਹੋਣਗੇ।
ਖੇਡਾਂ (ਲੜਕੇ ਅਤੇ ਲੜਕੀਆਂ ਲਈ)।
ਹਾਕੀ, ਹੈਂਡ ਬਾਲ, ਕਬੱਡੀ, ਬਾਕਸਿੰਗ, ਟੇਬਲ ਟੈਨਿਸ, ਤੈਰਾਕੀ ਅਤੇ ਡਾਈਵਿੰਗ, ਜਿਮਨਾਸਟਿਕ, ਫੁੱਟਬਾਲ, ਬੈਡਮਿੰਟਨ, ਬਾਸਕਟਬਾਲ, ਕ੍ਰਿਕਟ, ਖੋ-ਖੋ, ਕੁਸ਼ਤੀ, ਜੂਡੋ, ਵਾਲੀਬਾਲ, ਗਤਕਾ, ਲਾਨ ਟੈਨਿਸ,ਯੋਗਾ ਨਾਲ ਸਬੰਧਤ ਸਰੀਰਿਕ ਕ੍ਰਿਆਵਾਂ, ਰਿਦਮਕ ਫੋਕ ਡਾਂਸ
- ਸ) ਖੇਡਾਂ ਵਿੱਚ ਪ੍ਰਾਪਤੀ (ਵੱਧ ਤੋਂ ਵੱਧ 10 ਅੰਕ) ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਅੰਕ ਦਿੱਤੇ ਜਾਣਗੇ।
- | | |
|---------------------|--------|
| ਸਕੂਲ ਪ੍ਰਤੀਨਿੱਧਤਾ | 3 ਅੰਕ |
| ਜ਼ੋਨ ਪ੍ਰਤੀਨਿੱਧਤਾ | 4 ਅੰਕ |
| ਜ਼ਿਲ੍ਹਾ ਪ੍ਰਤੀਨਿੱਧਤਾ | 6 ਅੰਕ |
| ਰਾਜ ਪ੍ਰਤੀਨਿੱਧਤਾ | 8 ਅੰਕ |
| ਕੌਮੀ ਪ੍ਰਤੀਨਿੱਧਤਾ | 10 ਅੰਕ |
- ਹ) ਪ੍ਰੈਕਟੀਕਲ ਕਾਪੀ, ਚਾਰਟ ਜਾਂ ਮਾਡਲ - 2 ਅੰਕ
- ਕ) ਵਾਇਵਾ - 4 ਅੰਕ
- ਨੋਟ : ਪ੍ਰੈਕਟੀਕਲ ਦੇਣ ਸਮੇਂ ਪ੍ਰੀਖਿਆਰਥੀ ਸਪੋਰਟਸ ਕਿੱਟ ਵਿੱਚ ਹੋਣਾ ਚਾਹੀਦਾ ਹੈ।

43. INSURANCE
(HUMANITIES GROUP)

TIME- 3 Hours

Theory- 70 Marks
CCE- 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER

The Question Paper will cover whole of the prescribed syllabus.

All Questions will be compulsory.

15 Questions will be set in the Question Paper.

Q. No. 1 will be objective type consisting of 12 sub parts. Each sub part carry 1 mark. Objective type questions may include questions with one word to one sentence answer/fill in the blank/multiple choice type questions.

Question No. 2 to 11 will carry 3 marks each. The answer of each question should be given in 50-60 words.

Question No.12 to 15 each with internal choice will carry 7 marks each. The answer of each question should be given in 200-250 words.

Detail of questions set from each unit

Syllabus Units	1 Mark Questions	3 Marks Questions	7 Marks Questions
1	1	1 Q from	2 Q from Unit 1, 2 & 3
2	2	Unit 1 & 2	
3	2	2	
4	2	2	1 Q from Unit 4 & 5
5	1	1	
6	1	1	
7	1	1	1 Q from Unit 6 to 9
8	1	1	
9	1	1	
Total	12	10	4

SYLLABUS

Unit-1 Introduction to General Insurance:

Introduction: Origin and Growth of General Insurance: Functions of Insurance: Contracts of Insurance and Basic Principles of Insurable Interests.

Unit-2 Fire Insurance:

1. Introduction: Origin and Object of Fire Insurance and scope of cover of special perils under Fire Insurance.
2. Standard Fire Policy and Conditions.
3. Different Types of Fire Policies: Declaration Policy, Floating Policy for Building in course of construction: Transit Risk Policy and Loss or Profit Policy.

Unit-3 Marine Insurance:

1. Introduction: Meaning and Scope of Marine Insurance. Risk covered in Marine Insurance. Role of Lloyds Association.
2. Types of Marine Policies: Time, Voyage, Mixed, Builders Risk, Floating Policy, Inland Transit, Annual Policy, Postal and Air Policy. Duty and Profit Policy and Special Declaration Policy.

3. Classification of Losses: Recovery of Marine Losses and Claims Procedure
General Average Hull insurance (G.A.H.I.)

Miscellaneous Insurance:

Unit-4 Motor Insurance:

- I. Introduction: Provisions of Motor Vehicles Acts of 1939 and 1988. Issue of Transfer and Cancellation Certificate of Insurance.
- II. Classification of Motor Vehicles: Private Car, Motor Cycles, Commercial Vehicles and miscellaneous types of vehicles.
- III. Motor Insurance Policy and Covers: Comprehensive Policy: Third Party Act Policies: Extra Benefits Cover and Additional Perils and Benefits Cover Policies.
- IV. Motor Insurance Claims:
Entitlement of Claim: Conditions of Indemnity: Settlement of Claim. No Claim Discount. Motor Accident Claims Tribunal (M.A.C.T.)

Unit-5 Insurance of Persons:

Personal Accident (P.A.) Janta Personal Accident (J.P.A.); Gramin Personal Accident Policy (G.P.A.); Accident Policy for School Going Children group; Personal Accident Air Travel (P.A.A.T.) Insurance Policies and Health Insurance Scheme (H.I.S.)

Unit-6 Insurance of Property:

Burglary Policy Combined Fire and Theft Policy: All Risks Policy, Travelers Baggage Policy, Jewellery and Valuable Policy and Cash in Transit Policy.

Unit-7 Insurance of Liability and Interest:

Public Liability: Professional Indemnity, Different Types of Fidelity, Guarantee Insurance: Commercial, Individual, Collective and Excess Floating Policies.

Unit-8 Package Policy:

Domestic Multi-Risk: Traders Combined, Bankers Blanket, Jewellers Block, Marine-cum-Erection, Storage-cum-Erection, and Insurance Policy.

Unit-9 Loss Prevention:

Introduction: Method of Loss Prevention, Loss Prevention Association India (L.P.A.I.)

STRUCTURE OF QUESTION PAPER (THEORY)

1. There will be 21 questions in the question paper.
2. All questions are compulsory.
3. There will be the three-sections i.e. A, B and C in the question paper.

Section A

This section will comprise of 11 Questions.

1. 6 will be of 1 mark each. Answer to each question will be in few words or one line. $1 \times 6 = 6$
2. 5 are very short answer type Questions carrying 2 marks each. Each question should be answer in 5-7 lines. $2 \times 5 = 10$

Section B

This section will comprise of part-1 of the syllabus containing 1-5 units. In this section, 6 questions of 5marks each will be set, whose answer should be given in 15-20 lines. $5 \times 6 = 30$

Section C

This section will comprise of part -II of the syllabus containing unit-6-7. In this section 4 questions of 6 marks each will be set, whose answer should be given in 20-25 lines. $6 \times 4 = 24$

SYLLABUS

PART-1

Unit-1 Environment:

- (a) Nature and scope of Environment Education : Objective of environment studies, the need of environment studies at local, regional and national levels.
- (b) The logic behind the Holistic view of environment .Man as a culturally contributing activist either positively or passively.
- (c) Ecology: Ecological cycle and ecological principles, Relationship between Ecology and Economics, Political and Social implications of Environmental issues.

Unit-2 Geographical Features of the State (Punjab)

- (a) Physical situation: Annual rainfall, total cropped area: land under trees and forests.
- (b) Agro- climate regions: effects of weather and climate on growth, maturity and harvesting of crops,
- (c) Physical properties of the Soil, Structure and its types.

Unit-3 Conservation of Natural resources of the State (Punjab)

- (a) Land and mineral resources
- (b) Major water and power resources

- (c) Forest wealth of Punjab. Paucity of natural forests in the State. Forest policy of the State Govt.

Unit-4 Pollution

- (a) Environment pollution through industrial products and wastes, insecticides and pesticides.
- (b) Pollution of air and water in rural areas; various ways and means to check it.

Unit-5 Population distribution

- (a) Size and rate of growth of population: causes and effects of rapidly growing population, family welfare and other measures to check population growth.
- (b) Population Education: highlighting the problems of large families and propagating the idea of small families

PART -II AGRICULTURE

(With special reference to Punjab)

Unit-6 Agro-industries

(a) Dairy Farming.

- (i) Importance of dairy as an industry for the rural development.
- (ii) Important Breeds of Cattle i.e. Cows, Buffaloes, Sheep, and Goats reared in the states and improvement in their breeds.
- (iii) Improvement of their yield through proper nutrients in feed and feeding stuff.
- (iv) Major animal diseases and their control.
- (v) Marketing of milk products in the rural areas.

(b) Poultry Farming

- (i) Importance of poultry farming as an industry for rural development
- (ii) Poultry houses and equipment.
- (iii) Proper feeding of poultry birds and improvement in their breeds.
- (iv) Major poultry diseases and their remedies.
- (v) Packing and marketing of poultry products.

(c) Piggery and Fisheries

- (i) Scope of piggery and fisheries in the state.

HORTICULTURE

Unit-7 Horticulture (with special reference to Punjab)

- (a) Importance of special forestry in the rural development. Economic and environment benefits of social forestry.
- (b) Growing of some important trees like Acacia (Kikar), Dalbergia (Tali), Poplar and Eucalyptus in the rural areas and role of the state Govt. for encouraging social forestry in the villages.
- (c) Fruit plants
Growing of some major fruit plants in the different parts of the State. Methods of their planting, initial care, irrigation methods and control of their diseases. Fruits marketing, and preservation.
- (d) Vegetable plants
 - (i) Cultivation of various vegetables grown in different parts of the State.
 - (ii) Major vegetable diseases and their control.
 - (ii) Marketing of vegetables and their preservation.

Class-XII
45. MEDIA STUDIES
OBJECTIVES

Communication media have undergone big changes during a couple of decades and made its importance more meaningfully and abundantly felt. This has made our society awake in era of various new concepts and phenomena such as globalization, social media, civil society, new media and so on. It is being felt that communication media are playing an important role in shaping young minds, hence introductory information and practice is to be provided to students in this subject, at this stage.

Time: 3 Hrs.

Theory Paper: 50 Marks

CCE: 30 Marks

Practical: 20 Marks

Total: 100 Marks

STRUCTURE OF QUESTION PAPER (THEORY)

1. There will be 13 questions in all.
2. All the questions shall be compulsory which shall be set keeping in mind that the subject matter is for beginners.
3. Part-1 of the question paper shall consist of 5 questions of 1 mark each all objective type, to be set from whole of syllabus. 1x5=5
4. Part-II of the question paper shall consist of 5 question of 3 marks each, of a paragraph or two in size or length, selecting two each from each unit. 3x5=15
5. Third part of the question paper shall contain 3 questions of 10 marks each, with 100% choice, atleast 3 chosen from each unit. Each answer shall run into 300 words minimum. 10x3=30

Syllabus

Unit- I History and Development of Media

Group – A

1. Brief history and development of media in India and Punjab.
2. History of Punjabi Journalism

Group – B

3. Script writing for radio and television programmes.
4. Radio Programmes – Characteristics, Types and Impact.
5. T.V Programmes – Characteristics, Types and Impact.

Unit- II Films and Cyber Journalism

Group – C

6. Films: Brief history, Characteristics, Types and Impact.
7. Punjabi Cinema: Characteristics and Special Reference to Udeekan, Nanak Naam Jahaz, Chan Pardesi, Marhi da diva, Shaheed-E-Mohabat Buta Singh, Desh hoeya Pardesh.

Group – D

8. Cyber Journalism: Social Networking; Orkut, Facebook, Twitter, Blogging, Websites .
9. Communication through mobile phones.
10. Introduction to media ethics.
11. Basic terminology and use reference materials.

Viva-Voce (Practical)

Time: 3 Hrs.

Marks: 20

Instructions for Examiners and Examinees:

1. Printed material or aired programmes: Each student shall have to send their articles, features and letters to various newspapers or magazine and (Or) they may take part in any of the radio programmes. They shall have to maintain record of their practical work. Printed/Broadcasted/Telecasted materials in accordance with syllabus shall be assessed out of maximum 6 marks.
2. Teleboard Display and news reading. Display of teleboard and putting the candidate any questions out of topics mentioned in syllabus shall also be awarded out of maximum 6 marks.
3. Viva: The examiner may ask the candidate questions on visit to any Radio or T.V station and Current Affairs related to running academic session period. 8 marks

Class-XII
46. PHYSICS

Time: 3 Hours

Theory: 50 Marks
Practical: 20 Marks
C.C.E.: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER (Theory)

1. There will be one theory paper comprising of 26 questions. The student has to attempt total 20 question out of 26 as per the directions given below:
2. Question no. 1 to 5 will be of one mark each.
3. Question no. 6 to 14 will be of two marks each. Candidate can attempt any 6 questions out of 9 questions.
4. Question no.15 to 23 will be of three marks each. Candidate can attempt any 6 questions out of 9 questions.
5. Question no.24 to 26 will be of five marks each. There will be internal choice in them.
6. Distribution of marks over different dimensions of the paper will be as follows.

LEARNING OUTCOMES	MARKS	PERCENTAGE OF MARKS
KNOWLEDGE	18	36%
UNDERSTANDING	22	44%
APPLICATION	10	20%
Total	50	100%

7. There will be no question of the objective type such as Yes/No, tick/cross, fill in the blanks, multiple choice, true/false etc.
8. Use of un-programmable calculator is allowed. The log tables can be used.
9. Total weightage of numerical will be 20%

UNIT WISE DISTRIBUTION OF MARKS

Unit No.	Title	Marks
UNIT-I	Electrostatics	7
UNIT-II	Current Electricity	5
UNIT-III	Magnetic effects of current and magnetism	7
UNIT-IV	Electromagnetic Induction & current	6
UNIT-V	Electromagnetic waves	2
UNIT-VI	Optics	10
UNIT-VII	Dual nature of matter	3
UNIT-VIII	Atoms and Nuclei	4
UNIT-IX	Electronics devices	4
UNIT-X	Communication Systems	2
Total Marks		50

SCHEMATIC DISTRIBUTION OF MARKS

UNIT	Title	1 Mark Question	2 Marks Question	3 Marks Question	5 Marks Question	Total Marks
1	Electrostatic	-	1	-	1	7
2	Current Electricity	-	1	1	-	5
3	Magnetic effects of current & magnetism	2	-	-	1	7
4	Electromagnetic Induction & Alternating current	-	-	2	-	6
5	Electromagnetic waves	-	1	-	-	2
6	Optics	-	1	1	1	10
7	Dual Nature of matter	1	1	-	-	3
8	Atoms & Nuclei	1	-	1	-	4
9	Electronic	1	-	1	-	4
10	Communication system	-	1	-	-	2
Total Questions		5	6	6	3	20
Total Marks		5	12	18	15	50

INSTRUCTION FOR PAPER SETTER

Note:

1. There will be one theory paper consisting of total 26 questions. Three questions of two mark each & three questions of three marks each are choice questions will be set in the paper.
2. Question no.6 to 14 will be of 2 marks each, out of total 9 questions carrying 2 marks each, candidate can attempt any 6 questions.
3. Question no.15 to 23 will be of 3 marks each. Out of 9 questions carrying 3 marks each, candidate can attempt any 6 questions.
4. From one unit, only one choice question will be set. Choice questions of two or three marks will be set only from those units having two or three mark questions as per schematics distribution of marks.
5. Question No.24 to 26 will be 5 marks and their will be 100% internal choice.
6. Question No.24 to 26 will be 5 marks and their will be 100% internal choice.

THEORY

Unit-1: Electrostatics

Electric Charges; and their Conservation, Coulomb's law-force between two point charges, forces between multiple charges; superposition principle and continuous charge distribution.

Electrical field, electric field due to a point charge, electric-field lines; electric dipole, electric field due to a dipole; torque on a dipole in uniform electric field.

Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (Field inside and outside).

Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two point charges and of electric dipole in an electrostatic field.

Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarisation, capacitors and capacitance,

combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor, Van de Graaf generator.

Unit-II: Current Electricity

Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current: Ohm's law, electrical resistance. V-I characteristics (linear and non linear), electrical energy and power, electrical resistivity and conductivity. Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors; temperature dependence of resistance.

Internal resistance of a cell, potential difference and emf of cell, combination of cells in series and in parallel.

Kirchhoff's laws and simple applications. Wheatstone bridge, meter bridge.

Potentiometer-principle and its applications to measure potential difference and for comparing emf of two cells, measurement of internal resistance of a cell.

Unit-III: Magnetic Effects of Current and Magnetism

Concept of magnetic field. Oersted's experiment;

Biot-savart law and its application to current carrying circular loop.

Ampere's law and its applications to infinitely long straight wire, straight and toroidal solenoids.

Force on a moving charge in uniform magnetic and electric fields. Cyclotron.

Force on a current-carrying conductor in a uniform magnetic field Force between two parallel current-carrying conductors, definition of ampere. Torque experienced by a current loop in uniform magnetic field; moving coil galvanometers- its current sensitivity and conversion to ammeter and voltmeter.

Current loop as a magnetic dipole and its magnetic dipole moment. Magnetic dipole moment of a revolving electron. Magnetic field intensity due to a magnetic dipole (Bar magnet) along its axis and perpendicular to its axis. Torque on a magnetic dipole (bar magnet) in a uniform magnetic field; bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements, Para-, dia-and ferro-magnetic substances with examples, Electromagnets and factors affecting their strengths. Permanent magnets.

Unit-IV: Electromagnetic Induction and Alternating Currents

Electromagnetic induction, Faraday's laws, induced emf and current, Lenz's Law, Eddy currents: Self and mutual inductance.

Alternating current, peak and rms value of alternating current/voltage; reactance and impedances; LC oscillations, (qualitative treatment only), LCR series circuit resonance; power in AC circuit, wattless current.

AC generator and transformer.

Unit-V: Electromagnetic Waves

Need for displacement current, Electromagnetic waves and their characteristics (qualitative ideas only). Transverse nature of electromagnetic waves.

Electromagnetic spectrum (Radio waves, Radio-microwaves, infra-red, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.

Unit-VI: Optics

Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection and its applications, optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens-maker's formula. Magnification, power of a lens, combination of thin lenses in contact, combination of lens and mirror. Refraction and dispersion of light through a prism.

Scattering of light-blue colour of the sky and reddish appearance of the sun at sunrise and sunset.

Optical instruments:

Human eye, image formation and accommodation, correction of eye defects (myopia, hypermetropia) using lenses. Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.

Waves optics :

wave front and Huygens' Principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygens 'Principle. Interference. Young's double hole experiment and expression for fringe width, coherent sources and sustained interference of light. Diffraction due to a single slit, width of central maximum. Resolving power of microscopes and astronomical telescopes. Polarisation, plane polarised light -Brewster's law, uses of plane polarised light and Polaroids.

Unit-VII: Dual nature of Matter and Radiation

Photoelectric effect, Hertz and Lenard's observations'; Einstein's photoelectric equation, particle nature of light.

Matter waves-wave nature of particles, de Broglie relation. Davission-Germer experiment (experimental details should be omitted; only conclusion should be explained).

Unit-VIII: Atoms & Nuclei

Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model, energy levels, hydrogen spectrum.

Composition and size of nucleus, atomic masses, isotopes, isobars; isotones. Radioactivity- alpha, beta and gamma particles/rays and their properties; radioactive decay law. Mass-energy relation, mass-defect; binding energy per nucleon and its variation with mass number; nuclear fission and fusion,

Unit-XI: Electronic Devices

Energy bands in solids (qualitative idea only) conductor, insulators and Semiconductors; semiconductor Diode-1-V characteristics in forward and reverse bias, diode as a rectifier, 1-V characteristics of LED, photodiode, solar cell and Zener diode,

Zener diode as a voltage regulator. Junction transistor, transistor action; characteristics of a transistor: transistor as an amplifier (common emitter configuration) and oscillator, Logic gates (OR, AND, NOT, NAND and NOR). Transistor as a switch.

Unit-X: Communication Systems

Elements of a communication system (block diagram only); bandwidth of signals (speech, TV and digital data); bandwidth of transmission medium- Propagation of electromagnetic waves in the atmosphere, Sky and space wave propagation. Need for modulation. Production and detection of an amplitude modulated wave.

STRUCTURE OF PAPER (PRACTICAL)

Time: 3 hrs.

Total : 20 Marks

Two experiment	10
Record of Activities	2
Viva on Activities	3
Record of Experiments	2
Viva of Experiments	3
Total	<hr/> 20

PRACTICALS SYLLABUS

Experiments

1. To determine resistance per cm of a given wire by plotting a graph of potential difference versus current.
2. To find resistance of a given wire using meter bridge and hence determine the specific resistance of its material.
3. To verify the laws of combination (series/parallel) of resistance using a meter bridge.
4. To compare the emf of two given primary cells using potentiometer.
5. To determine the internal resistance of given primary cell using potentiometer.
6. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
7. To convert the given galvanometer of known resistance and figure of merit into an ammeter and voltmeter of desired range and to verify the same.
8. To find the frequency of the A.C. mains with a sonometer.
9. To find the value of v for different values of u in case of a concave mirror and find their focal length.
10. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$.
11. To find the local length of a convex mirror, using a convex lens.
12. To find the focal length of a concave lens, using a convex lens.
13. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
14. To draw the I-V characteristic curve of a p-n junction in forward bias and reverse bias.

15. To draw the characteristic curve of a zener diode and to determine its reverse breakdown voltage.
16. To study the characteristics of a common-emitter npn or pnp transistor and to find out the values of current and voltage gains.
17. To determine the reflective index of a glass slab using a traveling microscope.
18. To find refractive index of a liquid by using (i) Concave mirror. (ii) Convex lens and plane mirror.

Activities

1. To measure the resistance and impedance of an inductor with or without iron core.
2. To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter.
3. To assemble a household circuit comprising three, bulbs, three (on/off) switches, a – fuse and a power source.
4. To assemble the components of a given electrical circuit.
5. To study the variation in potential drop with length of a wire for a steady current.
6. To draw the diagram of a given open circuit comprising at least a battery, resistor rheostat, key ammeter and volt meter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.
7. To study effect of intensity of light (by varying distance of the source) on an D.R.
8. To identify a diode, an LED, a transistor and IC, a resistor and a capacitor from mixed collection of such items.
9. Use of multimeter to (i) identify base of transistor, (ii) distinguish between npn and pnp type transistors, (iii) see the unidirectional flow of current in case of a diode and an LED. iv) Check whether a given electronic component (e.g. diode, transistor or IC) is in working order.
10. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.
11. To observe polarization of light using two Polaroids.
12. To observe diffraction of light due to a thin slit.
13. To study the nature and size of the image formed by (i) convex lens (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).
14. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.

Class-XII
47. CHEMISTRY

Time: 3 Hours

Theory: 50 Marks
Practical: 20 Marks
C.C.E.: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER (Theory)

1. There will be one theory paper comprising of 26 questions. The student has to attempt total 20 question out of 26 as per the directions given below:
2. Question no. 1 to 5 will be of one mark each.
3. Question no. 6 to 14 will be of two marks each. Candidate can attempt any 6 questions out of 9 questions.
4. Question no.15 to 23 will be of three marks each. Candidate can attempt any 6 questions out of 9 questions.
5. Question no.24 to 26 will be of five marks each. There will be internal choice in them.
6. Distribution of marks over different dimensions of the paper will be as follows.

LEARNING OUTCOMES	MARKS	PERCENTAGE OF MARKS
KNOWLEDGE	18	36%
UNDERSTANDING	22	44%
APPLICATION	10	20%
Total	50	100%

7. There will be no question of the objective type such as Yes/No, tick/cross, fill in the blanks, multiple choice, true/false etc.
8. Use of un-programmable calculator is allowed. The log tables can be used.
9. Total weightage of numerical will be 20%

UNITWISE DISTRIBUTION OF MARKS

SR.NO	UNIT	TOTAL MARK
1	Solid state	05
2	Solutions	02
3	Electro-chemistry	03
4	Chemical-kinetics	02
5	Surface chemistry	03
6	General principles & process of isolation of elements	01
7	p-block elements	08
8	d & f-block elements	08
9	Coordination number	01
10	Haloalkanes & Haloarenes	05
11	Alcohol, Phenols & Ether	05
12	Aldehyde, Ketons & Carboxylic acids	02
13	Organic compounds containing Nitrogen compounds	02
14	Biomolecules	01
15	Polymers	01
16	Chemistry in everyday life	01
	TOTAL QUESTIONS & TOTAL MARKS	T.Q=20 T.M=50

Total Question in paper =26 including 6 choice questions

SCHEMATIC DISTRIBUTION OF MARKS

Sr. No	UNIT	1 MARK	2 MARK	3 MARK	5 MARK	TOTAL MARK
1	Solid state		1	1		05
2	Solutions		1			02
3	Electro-chemistry			1		03
4	Chemical-kinetics		1			02
5	Surface chemistry			1		03
6	General principles & process of isolation of elements	1				01
7	p-block elements			1	1	08
8	d & f-block elements			1	1	08
9	Coordination number	1				01
10	Haloalkanes & Haloarenes				1	05
11	Alcohol, Phenols & Ether		1	1		05
12	Aldehyde, Ketons & Carboxylic acids		1			02
13	Organic compounds containing Nitrogen compounds		1			02
14	Biomolecules	1				01
15	Polymers	1				01
16	Chemistry in everyday life	1				01
	TOTAL QUESTIONS & TOTAL MARKS	T.Q=5 T.M=5	T.Q=6 TM=12	T.Q=6 T.M=18	T.Q=3 T.M=1 5	T.Q=20 T.M=5 0

Total Question in paper =26 including 6 choice questions

NOTE:- INSTRUCTIONS FOR PAPER SETTING;-----

1. There will be one theory paper consisting of total 26 questions. Three questions of two marks, Six questions of three marks
2. Question no 6 to 14 will be of 2 marks each, Out of total 9 questions carrying 2 marks each, candidate can attempt any 6 questions.
3. Question no 15 to 23 will be of 3 marks each. Out of 9 questions carrying 3 marks each, candidate can attempt any 6 questions.
4. From one unit, only one choice question will be set. Choice questions of two or three marks will be set only from those units having two or three mark questions as per schematics distribution of marks.
5. Question No.24 to 26 will be 5 marks and their will be 100% internal choice.

SYALLBUS (THEORY)

Unit-I: Solid, State

Classification of solids based on different binding forces: molecular, ionic, covalent and metallic solids, amorphous and crystalline solids (elementary idea), unit cell in two dimensional and three dimensional lattices, calculation of density of unit cell, packing in solids packing efficiency, voids, number of atoms per unit cell in a cubic unit cell, points defects, electrical and magnetic properties. Band theory of metals, conductors, semiconductors and insulators and n and p type semiconductors.

Unit II: Solutions

Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, colligative properties - relative lowering of vapour pressure, Raoult's Law, elevation of B.P., depression of freezing

point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass. Vant Hoff factor.

Unit III: Electrochemistry

Redox reactions; conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and laws of electrolysis (elementary idea) dry cell-electrolytic cells and Galvanic cells; lead accumulator, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, fuel cells; corrosion. Relation between Gibbs Energy change and EMF of cell.

Unit IV: Chemical Kinetics

Rate of a reaction (average and instantaneous), factors affecting rates of reaction; concentration, temperature, catalyst; order and molecularity of a reaction: rate law and specific rate constant, integrated rate equations and half life (only for zero and first order reactions); concept of collision theory (elementary idea, no mathematical treatment). Activation Energy, Arrhenious equation.

Unit V: Surface Chemistry

Absorption physisorption and chemisorption; factors affecting adsorption of gases on solids; catalysis; homogenous and heterogeneous, activity and selectivity; enzyme catalysis; colloidal state: distinction between true solutions, colloids and suspensions; lyophilic, lyophobic, multimolecular and macromolecular/colloids; properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation; emulsion-types of emulsions.

Unit VI: General Principles and Processes of Isolation of Elements

Principles and methods of extraction – concentration, oxidation, reduction electrolytic method and refining; occurrence and principles of extraction of aluminum, copper, zinc and Iron.

Unit VII: p-Block Element

Group 15 elements: General introduction, electronic configuration, occurrence, oxidation states, trends in physical and chemical properties; nitrogen - preparation, properties and uses; compounds of nitrogen- preparation and properties of ammonia and nitric acids, oxides of nitrogen (structure only); Phosphorous- allotropic forms; compounds of phosphorous preparation and properties of phosphine, halides (PCl_3 , PCl_5) and oxoacids (elementary idea only).

Group 16 elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; dioxygen; preparation, properties and uses; classification of oxides; Ozone. Sulphur - allotropic forms; compounds of sulphur preparation, properties and uses of sulphur dioxide, sulphuric acid, industrial process of manufacture, properties and uses, oxoacids of sulphur (structures only).

Group 17 elements: (General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; compounds

of halogens; preparation, properties and uses of chlorine and hydrochloric acid, interhalogen compounds, oxoacids of halogens (structures only).

Group 18 elements: General introduction, electronic configuration. Occurrence, trends in physical and chemical properties, uses.

Unit-VIII: d and f Block Elements

General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals-metallic character, ionization, enthalpy, oxidation states, ionic radii, colour, catalytic properties, magnetic properties, interstitial compounds, alloy formation. Preparation and properties of $K_2Cr_2O_7$, and $KMnO_4$.

Lanthanoids - electronic configuration, oxidation states, chemical reactivity and lanthanoid contraction and consequences.

Actenoids - Electronic configuration, oxidation states.

Unit-IX: Coordination Compounds

Coordination compounds - introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds, bonding; Werner's theory VBT, CFT, Isomerism (structure and stereo) importance of coordination compounds (in qualitative analysis, extraction of metals and biological systems).

Unit-X: Haloalkanes and Haloarenes.

Haloalkanes: Nomenclature, nature of C-X bond, physical and chemical properties, mechanism of substitution reactions, optical rotation.

Halearenes: Nature of C-X bond, substitution reactions (directive influence of halogen for monosubstituted compounds only)

Uses and environmental effects of - dichloromethane, trichlromethane, tetrachloromethane, iodoform, freons, DDT.

Unit -XI: Alcohols, Phenols and Ethers

Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only); identification of primary, secondary and tertiary alcohols; mechanism of dehydration, uses, with special reference to - methanol and ethanol.

Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols.

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

Unit-XII: Aldehydes, Ketones aml Carboxylic Acids

Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, and mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes; uses.

Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.

Unit-XIII: Organic compounds containing Nitrogen

Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines.

Cyanides and Isocyanides - will be mentioned at relevant places in context.

Dizonium Salts: Preparation, chemical reactions and importance in synthetic organic chemistry.

Unit-XIV: Biomolecules

Carbohydrates - Classification (aldoses and ketoses), monosaccharides (glucose and fructose), oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); importance

Proteins - Elementary idea of amino acids, peptide bond, polypeptides proteins, primary structure, secondary structure, tertiary structure and quaternary structure (qualitative idea only), denaturation of proteins; enzymes.

Vitamins: Classification and functions.

Harmones: Elementary idea (excluding structure)

Nucleic Acids: DNA & RNA .

Unit-XV: Polymers

Classification - natural and synthetic, methods of polymerization (addition and condensation), copolymerization. Some important polymers; natural and synthetic like polythene, nylon, polyesters, bakelite, rubber. Biodegradable and Non-Biodegradable Polymers.

Unit-XVI: Chemistry in everyday life :

1. Chemicals in medicines analgesic, tranquilizers, antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines.

2. Chemicals in food- preservatives, artificial sweetening agents. Elementary idea of antioxidants.

3. Cleansing agents- soaps and detergents, cleansing action.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

Time: 3.00 hrs.	Marks: 20
Volumetric Analysis	6
Mixture Analysis	5
Content based Experiment	5
Class record & viva	4
Total Marks	<hr/> 20 <hr/>

PRACTICAL SYLLABUS

A. Surface Chemistry

- Preparation of one lyophilic and one lyophobic sol. Lyophilic sol - starch, egg albumin and gum. Lyophobic sol - aluminum hydroxide, ferric hydroxide, arsenious sulphide.

- b. Study of the role of emulsifying in stabilizing the emulsions of different oils.
- B. Chemical Kinetics**
- a. Effect of concentration and temperature on the rate of reaction between sodium thiosulphate and hydrochloric acid.
- b. Study of reaction rates of any one of the following:-
- Reaction of iodide ion with hydrogen peroxide at room temperature using different concentration of iodide ions.
 - Reaction between potassium iodate, KIO_3 , and sodium sulphite: (Na_2SO_3) using starch solution as indicator (clock reaction).
- C. Thermochemistry:** Any one of the following experiments
- Enthalpy of dissolution of copper sulphate or potassium nitrate.
 - Enthalpy of neutralization of strong acid (HCl) and strong base (NaOH)
 - Determination of enthalpy change during interaction (Hydrogen bond formation) between acetone and chloroform.
- D. Electrochemistry:** Variation of cell potential in $\text{Zn}/\text{Zn}^{+2}||\text{Cu}^{+2}/\text{Cu}$ with change in concentration of electrolytes (CuSO_4 or ZnSO_4 at room temperature.
- E. Chromatography**
- Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of R_f values.
 - Separation of constituents present in an inorganic mixture containing two cations only (constituents having wide difference in R_f values to be provided).
- F. Determination of concentration/molarity of KMnO_4 , solution by titrating it against a standard Solution of:**
- Oxalic acid.
 - Ferrous ammonium sulphate.
- (Students will be required to prepare standard solutions by weighing themselves).
- G. Preparation of Inorganic Compounds**
- Preparation of double salt of ferrous ammonium sulphate or potash alum.
 - Preparation of potassium ferric oxalate.
- H. Preparation of Organic Compounds:** Preparation of any two of the following compounds
- Acetanilide
 - Di-benzal acetone
 - p-Nitroacetanilide,
 - Aniline yellow or 2-Naphthol aniline dye.
 - Iodoform

I. Test for the functional groups present in organic compounds:
Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (primary) groups.

J. Study of carbohydrates, fats and proteins in pure form and detection of their presence in given food stuffs.

K. Qualitative analysis: Determination of one cation and one anion in a given salt.

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

Anions- CO_3^{2-} , S^{2-} , SO_3^{2-} , NO_2^- , NO_3^- , Cl^- , Br^- , I^- , PO_4^{3-} , $\text{C}_2\text{O}_4^{2-}$, CH_2COO^-

(Note: Insoluble salts excluded)

PROJECT

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

A few suggested Projects

1. Study of presence of oxalate ions in guava fruit at different stages of ripening.
2. Study of quantity of casein present in different samples of milk.
3. Preparation of soyabean milk and its comparison with the natural milk with respect to curd formation, effect of temperature etc.
4. Study of the effect of potassium bisulphate as food preservative under various conditions (temperature, concentration, time etc.)
5. Study of digestion of starch by salivary amylase and effect of PH and temperature on it.
6. Comparative study of the rate of fermentation of following material wheat flour, gram flour, Potato juice, carrot juice etc.
7. Extraction of essential oils present in saunf (aniseed), Ajwain (carum) illaichi (cardamom).
8. Study of common food adulterants in fat, oil, butter, sugar, turmeric powder, chilli powder and pepper.

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

Class-XII
48. BIOLOGY

Time: 3 Hours

Theory: 50 Marks
Practical: 20 Marks
C.C.E.: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER (Theory)

- 1 There will be one theory paper comprising of 26 questions. The student has to attempt total 20 question out of 26 as per the directions given below:
- 2 Question no. 1 to 5 will be of one mark each.
- 3 Question no. 6 to 14 will be of two marks each. Candidate can attempt any 6 questions out of 9 questions.
- 4 Question no.15 to 23 will be of three marks each. Candidate can attempt any 6 questions out of 9 questions.
- 5 Question no.24 to 26 will be of five marks each. There will be internal choice in them.
- 6 Distribution of marks over different dimensions of the paper will be as follows.

LEARNING OUTCOMES	MARKS	PERCENTAGE OF MARKS
KNOWLEDGE	18	36%
UNDERSTANDING	22	44%
APPLICATION	10	20%
Total	50	100%

- 7 There will be no question of the objective type such as Yes/No, tick/cross, fill in the blanks, multiple choice, true/false etc.

DISTRIBUTION OF MARKS

Unit	Title	Marks
I	Reproduction	11
II	Genetics & Evolution	11
III	Biology and Human Welfare	09
IV	Biotechnology and its applications	08
V	Ecology and Environment	11
Total Marks		50

SCHEMATIC DISTRIBUTION OF MARKS

Unit	1 mark question	2 marks questions	3 marks questions	5 marks question	Total
Unit-I	1	1	1	1	11
Unit-II	1	1	1	1	11
Unit-III	1	1	2	-	09
Unit-IV	1	2	1	-	08
Unit-V	1	1	1	1	11
Total Questions	5	6	6	3	20
Total Marks	5	12	18	15	50

INSTRUCTION FOR PAPER SETTER

Note:

1. There will be one theory paper consisting of total 26 questions. Three questions of two marks each & three questions of three marks each are choice questions will be set in the paper.

2. Question no.6 to 14 will be of 2 marks each, out of total 9 questions carrying 2 marks each, candidate can attempt any 6 questions.
3. Question no.15 to 23 will be of 3 marks each. Out of 9 questions carrying 3 marks each, candidate can attempt any 6 questions.
4. Paper setter should select choice questions of 2 marks and 3 marks from unit-III and IV.
5. Question No.24 to 26 will be 5 marks and their will be 100% internal choice.

SYLLABUS (THEORY)

I. Reproduction

Reproduction in organisms: Reproduction, a characteristic feature of all organism for continuation of species; Modes of reproduction-Asexual and sexual reproduction; Modes –Binary fission, sporulation, budding, gemmule, fragmentation; vegetative propagation in plants.

Sexual reproduction in flowering plants: Flower structure; Development of male and female gametophytes; Pollination-types, agencies and examples; Outbreedings devices; Pollen-Pistil interaction; Double fertilization; Post fertilization events- Development of endosperm and embryo, Development of seed and formation of fruit; Special modes-apomixis, parthenocarpy, polyembryony; Significance of seed and fruit formation.

Human Reproduction: Male and female reproductive systems; Microscopic anatomy of testis and ovary; Gametogenesis-spermatogenesis & oogenesis; Menstrual cycle; Fertilisation, embryo development upto blastocyst formation, implantation; Pregnancy and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary idea).

Reproduction health: Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control – Need and Methods, Contraception and Medical Termination Pregnancy (MTP); Amniocentesis; Infertility and assisted reproductive technologies-IVF, ZIFT, GIFT (Elementary ideas for general awareness).

II. Genetics and Evolution

Heredity and variation: Mendelian Inheritance; Deviations from Mendelism-Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotropy; Elementary idea of polygenic inheritance; Chromosome theory of inheritance; Chromosomes and genes; Sex determination-In humans, birds, honey bee; Linkage and crossing over; Sex linked inheritance – Haemophilia, Colour blindness; Mendelian disorders in humans- Thalassemia; Chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

Molecular Basis of Inheritance: Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; Transcription, genetic code, translation; Gene expression and regulation- Lac Operon; Genome and human genome project; DNA finger printing.

Evolution: Origin of life; Biological evolution and evidences for biological evolution (Paleontological, Comparative anatomy, embryology and molecular evidence);

Darwin's contribution, Modern Synthetic theory of Evolution; Mechanism of evolution-Variation (Mutation and Recombination) and Natural Selection with examples, types of natural selection; Gene flow and genetic drift; Hardy-Weinberg's principle; Adaptive Radiation; Human evolution.

III. Biology and Human Welfare

Health and Disease: Pathogens; parasites causing human diseases (Malaria, Filariasis, Ascariasis, Typhoid, Pneumonia, common cold, amoebiasis, ring worm); Basic concepts of immunology-vaccines; Cancer, HIV and AID's; Adolescence, drug and alcohol abuse.

Improvement in food production: plant breeding, tissues culture, single cell protein, Biofortification, Apiculture and animal husbandary.

Microbes in human welfare: In household food processing, industrial production, sewage treatment, energy generation and as biocontrol agents and biofertilizers.

IV. Biotechnology and its applications

Principles and process of Biotechnology: Genetic engineering (Recombinant DNA technology).

Application of Biotechnology in health and agriculture: Human insulin and vaccine production, gene therapy; genetically modified organisms- Bt crops; Transgenic Animals; Biosafety issues-Biopiracy and patents.

V. Ecology and environment

Organisms and environment: Habitat and niche; Population and ecological adaptations; Population interactions-mutualism, competition, predation, parasitism; Population attributes-growth, birth rate and death rate, age distribution.

Ecosystems: Patterns, components; productivity and decompositions; Energy flow; Pyramids of number, biomass, energy; Nutrients cycling (carbon and phosphorous); Ecological succession; Ecological Services-Carbon fixation, pollination, oxygen release.

Biodiversity and its conservation: Concepts of Biodiversity; Patterns of Biodiversity; Importance of Biodiversity; Loss of Biodiversity; Biodiversity conservation; Hotspots, endangered organisms, extinction, Red Data Book, biosphere reserves, National parks and sanctuaries.

Environmental issues: Air pollution and its control; Water pollution and its control; Agrochemicals and their effects; Solid waste management; Radioactive waste management; Greenhouse effect and global warming; Ozone depletion; Deforestation; Any three case studies as success stories addressing environmental issues.

STRUCTURE OF QUESTION PAPER (PRACTICAL)

Time: 3.00 hrs.

Total 20 : Marks

1. Experiment and Spotting	12
2. Record of one investigatory and Viva based on the project	4
3. Class record and Viva based on experiments	4
Total	20

SYLLABUS (PRACTICAL)

1. Study of pollen grains on a slide.
2. Study of flowers adapted to pollination by different agencies (wind, insect)
3. Study of pollen germination on a slide.
4. Study and identify stages of gamete development i.e. T.S of testis and T.S of ovary through permanent slides.
5. Study meiosis in Onion bud cell or grasshopper testis through permanent slides.
6. Study of T.S of blastula through permanent slide.
7. Study mendelian inheritance using seeds of different colour/size of any plant.
8. Study prepared pedigree charts of genetic traits such as rolling of tongue, blood groups, window's peak, colour blindness.
9. Exercise on controlled pollination -Emasculation, tagging and bagging.
10. Study analogous and homologous organs in various plants and animals.
11. Collect and study soil from different sites and study them for texture and moisture content.
12. Study the pH and water holding capacity of soil correlate with the kinds of plants found in them.
13. Collect water from different water bodies around you and study them for pH clarity and presence of any living organisms.
14. Study the presence of any suspended particulate matter in air at the two widely different sites.
15. Study of plant population density by quadratic method.
16. Study of plant population frequency by quadrature method.
17. Study of plants and animals found in xerophytes conditions. Comment upon their adaptation ecosystem.
18. Study plants and animals found in aquatic conditions. Comment upon their adaptation ecosystem.
19. To identify common disease causing organisms like Ascaris, Endameba, Plasmodium, ringworm. Comment on symptoms of diseases that they cause through permanent slides or specious.

Class-XII
49. GEOLOGY

Time : 3 hrs.

Theory : 50 Marks
Practical : 20 Marks
CCE: 30 Marks
Total : 100 Marks

STRUCTURE OF QUESTION PAPER (THEORY)

There will be one theory paper comprising of 23 questions. All questions will be compulsory.

Marks for each question are indicated against it.

Question Nos. 1-10 are objective type questions carrying 1 mark each. Answer to each question will be in one line or few words only.

Question Nos. 11-15 are very short answer type questions carrying 2 marks each. Answer to each question will be in 20-30 words.

Question Nos. 16-20 are short answer type questions carrying 3 marks each. Answer to each question will be in 80-100 words.

Question Nos. 21-23 are long answer type questions carrying 5 marks each. There will be 100% internal choice.

There will be no objective type questions such as yes/no, tick/cross, fill in the blanks, multiple choice, true/false etc.

The question paper should be strictly from the prescribed syllabus subject to the above mentioned guidelines.

Candidates will be provided with one answer book of 32 pages only. No extra/continuation sheet will be provided.

(PRACTICAL)

Time: 3 Hours

Marks: 20

The examiner will set the question paper on the spot. The distribution of marks in the paper will be as follows:

1. At least 8 minerals will be given to the students for identification. Students are required to attempt/identify 4 minerals out of these. The question will carry 4 marks.
2. 8 fossils will be given to the students for identification. Student will identify 4 fossils out of these. The question will carry 4 marks.
3. The examiner will ask the student to plot an outline map of India the distribution of deposits of any two minerals. The student will attempt any one. The question will carry 4 marks.
4. The examiner will give two geographical maps for study and for the identification of their various features. Students are required to attempt and one of these two maps. The question will carry 5 marks.
5. 3 marks are reserved for notebook and record.

A group of students for practical should not be more than 20 students.

SYLLABUS (THEORY)

Time: 3 Hours

Marks: 50

1. Physical Geology:

The earth: origin, age and interior: Elementary idea.

2. Structural Geology:

Elementary ideas of folds, faults and unconformity-their identification by major features geometric classification, mountain, their types from Geosynclines to mountains.

3. Paleontology:

Fossils : their utility. Elementary idea of the evolution of life during geologic past. Morphological features of brachiopods, molluscs and trilobites. Elementary idea of Gondwana plants and Shivalik vertebrates.

4. Stratigraphy:

The story of rocks of the Precambrian Era, the Paleozoic Era, the Mesozoic Era, the Cenozoic Era. A general survey of the Indian geographic sub-divisions. Configuration of India, their board divisions.

5. Petrology:

Subdivisions of rocks: Broad classification of the various types of rocks sedimentary, Igneous and Metamorphic. General idea of the important structure found in those rocks. General idea of the mineralogical, composition of these rocks.

6. Minerology :

Minerals as constituents of rocks. General survey of the rocks : forming minerals like quartz, feldspars, micas, pyroxenes, amphiboles. Some important physical properties of these minerals.

7. Crystallography :

The crystal, its type, general morphological characters of crystals of the cubic system. General idea of the various crystallographic system.

8. Economic Geology :

Mineral wealth, its economic significance. A general survey of the economic mineral deposits of India, their distribution particularly of coal, iron, petroleum, gold, copper, lead and zinc.

PRACTICAL

Time: 3 Hours

Marks: 20

1. Reading and interpretation of geological maps and topographical sheets.
2. Preparation of cross section along given lines in the geological maps.
3. Megascopic identification of important rocks and minerals.
4. Distribution of mineral deposits in India and their location. Plotting on an outline map of India.
5. Identification of some important plants and animals (Vertebrate and invertebrate) Fossils.

Class-XII
50. BIOTECHNOLOGY

Time: 3 hrs.

Theory: 50 Marks
Practical: 20 Marks
CCE: 30 Marks
Total: 100 Marks

STRUCTURE OF QUESTION PAPER THEORY

There will be one theory paper comprising of 23 questions. All questions will be compulsory.

Marks for each question are indicated against it.

Question Nos. 1-10 are objective type questions carrying 1 mark each. Answer to each question will be in one line or few words only.

Question Nos. 11-15 are very short answer type questions carrying 2 marks each. Answer to each question will be in 20-30 words.

Question Nos. 16-20 are short answer type questions carrying 3 marks each. Answer to each question will be in 80-100 words.

Question Nos. 21-23 are long answer type questions carrying 5 marks each. There will be 100% internal choice.

There will be no objective type questions such as yes/no, tick/cross, fill in the blanks, multiple choice, true/false etc.

The question paper should be strictly from the prescribed syllabus subject to the above mentioned guidelines.

Candidates will be provided with one answer book of 32 pages only. No extra/continuation sheet will be provided.

PRACTICAL

Time: 3 Hours

Marks: 20

Distribution of marks:

- | | | |
|----|-------------------|---------|
| 1. | One Experiment | 6 marks |
| 2. | Practical record | 3 marks |
| 3. | Viva on practical | 3 marks |
| 4. | Project work | |
| | (a) Write up | 4 marks |
| | (b) Viva | 4 marks |

A group of students for practical should not be more than 20 students.

SYLLABUS (THEORY)

Time: 3 Hours

Marks: 50

Unit – I: CELL CULTURE TECHNOLOGY

Chapter I: Microbial Culture and Applications.

Introduction

Microbial Culture Techniques.

Measurement and Kinetics of microbial growth.

Scale up of microbial process.

Isolation of microbial products.

Strain isolation and improvement.

Applications of microbial culture technology.

Bioethics in microbial technology.

Chapter II: Plant Cell Culture and Applications.

Introduction.

Cell and Tissue Culture Techniques.

Applications of Cell and Tissue Culture.

Gene Transfer Methods in Plants.

Transgenic in Agriculture and Molecular Breeding.

Bioethics in Plant Genetic Engineering.

Chapter III: Animal Cell Culture and Applications.

Introduction.

Animal Cell Culture Techniques.

Characterization of Cell Lines.

Scale-up of Animal Culture Process.

Applications of Animal Cell Culture.

Stem Cell Technology.

Bioethics of Genetic Engineering in Animals.

Unit – II: PROTEIN AND GENE MANIPULATION

Chapter I: Microbial Culture and Applications.

Introduction to the world of Proteins.

3-D shape of Proteins.

Structure Function relationship in Proteins.

Purification of Proteins.

Characterization of Proteins.

Protein based products.

Designing Proteins.

Proteomics.

Chapter II: Recombinant DNA Technology.

Introduction.

Tools of DNA Technology.

DNA Library.

Introduction of Recombinant DNA into host cells.

Identification of Recombinants.

Polymerase Chain Reaction (PCR).

DNA Probes.

Hybridization Techniques.

DNA Sequencing.

Site directed mutagenesis.

Chapter III: Genomics and Bioinformatics.

Introduction.

Genome sequencing projects.

Gene prediction and counting.

Genome similarity, SNP's and comparative genomics.

Functional Genomics.

Sequences and Nomenclature.

Information Sources.

Analysis using Bioinformatics, tools.

PRACTICAL

Time: 3 Hours

Marks: 20

List of Experiments

Bacterial transformation using any plasmid.

Multiplication of tobacco by nodal bulb culture.

Data retrieval and database search using internet site NCBI.

Production and estimation of ethanol from microbial culture.

Determination of LCG in Urine (Pregnancy Test).

Isolation of bacterial plasmid DNA and its detection by gel electrophoresis.

Restriction digestion of plasmid DNA and its analysis by gel electrophoresis.

Download a DNA and protein sequence from internet, analysis and comment on it.

Determination of N-terminal of a protein.

Ion-exchange chromatography for proteins.

Reading of DNA sequencing to get and arrive at the sequence.

Project work.

Class -XII

51. COMPUTER APPLICATION

- Lesson 1: Introduction to C ++
- 1.1 Introduction to Object Orientation
 - 1.2 Difference between Structured & Object Oriented Language
 - 1.3 Introduction to C ++
 - 1.4 Program Structure
 - 1.5 Program Design & Implementation Issues
 - 1.6 Character set of C++
 - 1.7 C++ Basic Elements
 - 1.8 Structure of a Program
 - 1.9 What is meant by an Object?
- Lesson 2: Data Types Variables and Constants
- 2.1 Concepts of Data Types
 - 2.2 Data Types Modifiers
 - 2.3 Constants
 - 2.4 String Literals
 - 2.5 Variables
 - 2.6 Operators in C++
 - 2.7 Expressions and Statements
 - 2.8 Conditional Expression
 - 2.9 Operators Precedence in C++
- Lesson3: Control Statements
- 3.1 Conditional Statements
 - 3.2 Selection Statements: if and else
 - 3.3 Nested if (Nested blocks)
 - 3.4 Another selection statements: switch.
 - 3.5 Jump statement
 - 3.6 The break statement
 - 3.7 The continue statement
 - 3.8 The goto statement
 - 3.9 Exit() Function
 - 3.10 Iteration Statement (C++)
 - 3.11 Loop & Nested Loops
 - 3.12 Console I/O functions
 - 3.13 Header Files
- Lesson 4 Functions
- 4.1 Definition of function
 - 4.2 Function Prototype
 - 4.3 Objective of using function prototype
 - 4.4 Accessing a function
 - 4.5 Passing argument to a function
 - 4.6 Default values for Parameters:
 - 4.7 THE const ARGUMENT
 - 4.8 C++ function call by value
 - 4.9 C++ function call by reference
 - 4.10 Parameter pass by reference
 - 4.11 Return statement
 - 4.12 Passing Arrays as Function Arguments in C++
 - 4.13 C++ Variable Scope
 - 4.14 Local Variables
- Lesson 5 Arrays
- 5.1 Declaring Arrays
 - 5.2 One Dimensional Array
 - 5.3 Nature of subscript
 - 5.4 Multidimensional Array
 - 5.5 Two-Dimensional Arrays
 - 5.6 Arrays of strings
- Lesson 6: Classes and Objects
- 6.1 Classes
 - 6.2 Access specifiers and default labels
 - 6.3 Scope of class & its members
 - 6.4 Member functions

- 6.5 Data hiding & encapsulation
- 6.6 Inline Functions
- 6.7 Nesting of Member Functions
- 6.7 Nesting of Member Functions
- 6.8 Arrays within a class
- 6.9 Static Function Members
- Lesson 7: Constructors, Destructors and Function Overloading
 - 7.1 Need for Constructors
 - 7.2 Default Constructors
 - 7.3 Parameterized Constructor:
 - 7.4 Default Copy Constructor
 - 7.5 Dynamic Initialization Using Constructors
 - 7.6 The Class Destructor:
 - 7.7 Function overloading in C++
 - 7.8 Steps involved in finding the best match
- Lesson 8: Inheritance
 - 8.1 Inheritance : Extending Classes
 - 8.2 Need for Inheritance
 - 8.3 Defining Derived Class
 - 8.4 Different Forms of Inheritance
 - 8.5 Visibility Modes
 - 8.6 Inherit private members of base class
- Lesson 9: Information Technology
 - 9.1 Introduction
 - 9.2 Computer Networks
 - 9.3 Network Topology
 - 9.4 Advantages & Disadvantages of Network
 - 9.5 Data Communication
 - 9.6 Transmission Channel
 - 9.7 Types of Networks

Class-XII

52. ELEMENTS OF ELETRONICS ENGINEERING

Time: 2 Hours

Time: 3 Hours

Theory: 30 Marks

Practical: 40 Marks

CCE: 30 Marks

Total: 100 Marks

THEORY

Structure of Question Paper

In all, sixteen questions will be set from the prescribed syllabus. The question paper will comprise of three parts (Part-I, Part-II and Part-III). The questions will be evenly distributed from the prescribed syllabus.

Part-I will consist of Five objective type questions carrying 1 mark each. All questions will be compulsory to attempt. The answer of each question should not exceed more than one sentence.

Part-II will consist of seven short answer type questions carrying 3 marks each. Candidate will attempt any five questions out of these. A question may have two or more parts. The answer of each question should not be more than one page of the answer sheet.

Part-III will consist of four questions carrying 5 marks each. Candidate will attempt any two question out of these. The answer of each question should not be more than Two pages of the answer sheet.

SYLLABUS

1. Modulation:- Introduction, need of modulation, types with wave shapes, side bands production in A.M. and F.M. Phase modulation, Classification of A.M.
2. Methods : Typical circuit of A.M. modulators and their description.
3. Detection:- Introduction, needs of detection, Square law diode detection, grid leak detector, linear diode detection, anode bend detection.

Types of video detectors and their typical circuits, Phase shift discriminator, Ratio detector, Unifiers and their detailed descriptions.

4. Oscillators :- Introduction, requirements, various types, detailed circuit description of Hartley and colpits oscillators, Multi Vibrators-Classification. Astable and Biastable multivibrators and their detailed circuit description.
5. Amplifiers :- Introduction, A.F and Power amplifiers, Push-pull amplifier and their circuit description, feedback.

Amplifiers :- Voltage Feedback Amp., R.C coupled amplifier with voltage inverse feed back, feedback amp. Characteristics of Tuned voltage and power amplifiers. Op-Amplifiers (Operational Amps), their functions and uses.

Class-XII

21. BOOK KEEPING AND ACCOUNTANCY

(Humanities Group)

Time: 3 Hours

Theory: 70 marks

CCE: 30 marks

Total: 100 marks

Structure of Question Paper

9. The question paper will cover whole of the syllabus.
10. 11 Questions will be set in the question paper.
11. All units of the syllabus should be given adequate representation in the question paper.
12. Question No. 1 will be objective type consisting of 8 sub parts carrying 1 mark each. Answer of each part should be given in 1-15 words. Objective type questions may include questions with one word or one sentence answer/fill in the blanks/multiple choice questions.
13. Question No. 2 to 8 (of which three will be of numerical nature and four will be of theoretical nature) will carry 5 marks each. Answer of each theoretical question should be given in 15-20 lines.
14. Question No. 9 to 11 will carry 9 marks each with internal choice. Of these, any two questions will have internal choice between theoretical and numerical questions while any one of these three will have only numerical question internal choice. Answer of each theoretical question should be given in 3-5 pages.
15. There is no word, line or page limit for numerical questions.
16. The use of non-programmable simple calculator is allowed.

Detail of questions set from each unit

Unit No.	Name of the unit	1 mark questions	5 marks questions	9 marks questions
1.	Accounting for not for profit Organisation	1	1	1
2.	Accounting for partnership	1	1	1
3.	Reconstitution or partnership (1,2 & 3)	1	1	
3.	Reconstitution of partnership (4 & 5)	1	1	1
4.	Dissolution of partnership firm	1		
5.	Accounting for share & debenture capital	1	1	1
6.	Analysis of financial statements	1	1	1
7.	Statement of changes in financial position	1	1	1

SYLLABUS

UNIT 1: ACCOUNTING FOR NOT-FOR-PROFIT ORGANIZATION.

1. Meaning, Basic Concepts
2. Receipts and Payments : Meaning and Concept of Fund Based and Non Fund Based Accounting
3. Preparation of Income and Expenditure Account and Balance Sheet from Receipt and Payment Account with additional information.

UNIT 2 : ACCOUNTING FOR PARTNERSHIP

1. Nature of Partnership Firm, Partnership Deed (Meaning and Importance)
2. Final Accounts of Partnership: Fixed v/s Fluctuating Capital, Division of Profit among Partners (excluding guarantee and past adjustments). Preparation of Profit and Loss Appropriation Account

UNIT 3: RECONSTITUTION OF PARTNERSHIP

1. Change in Profit Sharing Ratio among the existing Partners- Sacrificing Ratio and Gaining Ratio
2. Accounting for Revaluation of Assets and Liabilities and Distribution of Reserves and Accumulated Profits
3. Goodwill: Meaning, Nature, Factors affecting and Methods of Valuation. Average Profits, Super Profits and Capitalization Methods
4. Admission of a Partner:- Effect of Admission of Partner, Change in Profit Sharing Ratio, Accounting Treatment of Goodwill (as per accounting standard 10). Revaluation of Assets and Liabilities, Reserves (Accumulated profits) and Adjustment of Capitals
5. Retirement/Death of a Partner: Change in Profit Sharing Ratio, Accounting Treatment of Goodwill, Revaluation of Assets and Liabilities, Treatment of Accumulated Profits (Reserve), Adjustment of continuing P.capitals, Payment to Retiring Partner/ Deceased Partners.

UNIT 4 : DISSOLUTION OF PARTNERSHIP FIRM

Meaning and Various Modes of Dissolution of Partnership Firm, Settlement of Accounts.Preparation of Realization Account and Related Accounts (excluding Piece Meal Distribution, Sale to a Company and Insolvency of a Partner).

UNIT-5: ACCOUNTING FOR SHARE CAPITAL AND DEBENTURES

1. Share Capital: Meaning, Nature and Types
2. Accounting for Share Capital: Issue and Allotment of Equity and Prefer Shares, Over Subscription and under Subscription, Issue at Par Securities Premium and at Discount, Calls in Advance, Calls in Arrears, Issue of Shares for Consideration other than cash.
3. Forfeiture of Shares: - Accounting Treatment, Reissue of Forfeited Shares.
4. Presentation of Share and Debenture, Capital in Company's Balance Sheet
5. Issue of Debentures:- Meaning, Types of Debentures, Issue at Par, Premium and Discount, Issue of Debentures for Consideration other than cash, Debenture Issues as Collateral Security.
6. Redemption of Debentures: - Out of proceeds of fresh issue, Accumulated Profits and Sinking Fund.

UNIT 6: ANALYSIS OF FINANCIAL STATEMENTS

1. Financial Statement of Company: - Balance Sheet of a Company in the prescribed form with major heading only (schedule VI)
2. Financial Analysis: - Meaning, Significance and Purpose, Limitations.
3. Tools for Financial Analysis: - Comparative statements, Common Size Statement and Trend Analysis.
4. Accounting Ratio: - Meaning, Objectives and Types of Ratios:
 - a. Liquidity Ratio: - Current Ratio, Liquidity Ratio.
 - b. Solvency Ratio: - Debt to Equity, Total Assets to Debt, Proprietary Ratio.
 - c. Activity Ratio: Inventory Turnover, Debtors Turnover, Creditors Turnover, Working Capital Turnover, Fixed Assets Turnover, Currents Assets Turnover.
 - d. Profitability Ratio: - Gross Profit, Operating Profit Ratio, Net Profit Ratio, Return on Investment, Earning Per Share Dividend Per Share, Price Earning Ratio.

UNIT 7: STATEMENT OF CHANGES IN FINANCIAL POSITION

Cash Flow Statement: - Meaning and Objectives, Preparation, Adjustments related to Depreciation, Dividend, Tax, Purchase and Sale of non current assets (as per revised standard issued by ICAI)

Class-XII
53. BUSINESS STUDIES – II
(COMMERCE GROUP)
PAPER - I

Time : 3 Hours

Theory: 50 Marks
CCE: 25 Marks
Total: 75 Marks

STRUCTURE OF QUESTION PAPER

1. The question paper will cover whole of the syllabus.
2. 11 Questions will be set in the question paper.
3. All units of the syllabus should be given adequate representation in the question paper.
4. Question No. 1 consists of 8 sub parts carrying 1 mark each. Answer of each Part should be given in 1-15 words. Objective type questions may include questions with one word to one sentence answer/fill in the blank/true or false/multiple choice type questions.
5. Question No. 2 to 8 will carry 3 marks each. Answer of each question should be given in 15-20 lines.
6. Question No. 9 to 11 will carry 7 marks each with internal choice. Answer of each question should be given in 3-5 pages. Internal choice questions should not be set from the same unit.

Detail of questions set from each unit

Unit No.	Name of the unit	1 mark questions	3 marks questions	7 marks questions
1.	Nature & Significance of Management			
2.	Principles of Management	1	1	1
3.	Business Environment			
4.	Planning	1	1	1
5.	Organisation			
6.	Staffing	1	1	1
7.	Directing	1		
8.	Coordination			
9.	Controlling	1	1	1
10.	Business Finance			
11.	Financial Markets	1	1	1
12.	Marketing	1	1	
13.	Consumer Protection			
14.	Entrepreneurship Development	1	1	1

SYLLABUS

PRINCIPLES AND FUNCTIONS OF MANAGEMENT

UNIT-1: NATURE AND SIGNIFICANCE OF MANAGEMENT.

- (a) Management Concept, Objectives and Importance.
- (b) Management as an Activity, Process, Discipline and as a Group.
- (c) Nature of Management as a Science, as an Art and as a Profession.
- (d) Management and Administration Comparison.
- (e) Level of Management-Top, Middle & Supervisory.
- (f) Management Function-Planning, Organizing, Staffing, Directing Coordinating and Controlling.

UNIT-2: PRINCIPLES OF MANAGEMENT

- (a) Principles of Management: Meaning, Nature & Significance.
- (b) Fayol's Principles of Management.
- (c) Taylor's Scientific Management-Principles & Techniques.

UNIT-3: BUSINESS ENVIRONMENT

- (a) Business Environment - Meaning & Importance.
- (b) Dimensions of Business Environment-Political, Economic, Social Legal and Technological.
- (c) Economic Environment in India, Impact of Govt. Policy changes on business & industry with Reference to Liberalization, Privatization and Globalization (since 1991).

UNIT-4: PLANNING

- (a) Meaning, Features, Process, Importance & Limitations.
- (b) Goals, Objectives, Policy, Procedures, Strategy, Methods, Rules, Budgets and Programmes-Meaning and Distinction.

UNIT-5: ORGANISATION

- (a) Meaning and Importance
- (b) Process of Organizing
- (c) Types of Organization: Formal, Informal, Line Organization, Line & staff and Functional Organization.
- (d) Delegation: Meaning, Elements and Importance, Barriers in the way of delegation, Step to make delegation effective.
- (e) Decentralization: Meaning and Importance
- (f) Difference between Centralization and Decentralization.
- (g) Difference between Delegation and Decentralization.

UNIT-6: STAFFING

- (a) Staffing: Meaning, Need and Importance
- (b) Steps in Staffing Process:
 - (i) Recruitment: Meaning and Sources.
 - (ii) Selection: Meaning and Process.
 - (iii) Training & Development: Meaning, Need, Types and Methods.
- (c) Methods of Wage Payment: Time Rate & Piece Rate.
- (d) Types of Compensation and Incentives: Monetary & Non Monetary.

UNIT-7: DIRECTING

- (a) Directing: Meaning and Importance.
- (b) Elements of Direction:
 - i. Supervision: Meaning and Importance
 - ii. Motivation: Meaning and Importance, Maslow's hierarchy of needs: Financial & Non-Financial Incentives.
 - iii. Leadership: Meaning, Importance, Quality of a good leader.
 - iv. Communication: Meaning and Importance, Types of Communication and Barriers to Effective Communication.

UNIT-8: COORDINATION

Coordination: Meaning, Nature & Importance.

UNIT-9: CONTROLLING

- (a) Controlling: Meaning and Importance.

- (b) Relationship between Planning and Controlling.
- (c) Steps in the process of Control.

BUSINESS FINANCE AND MARKETING

UNIT-10: BUSINESS FINANCE

- (a) Meaning and Objectives of Finance Functions, Profit Maximization vs Wealth Maximization.
- (b) Financial Planning: Meaning & Importance
- (c) Capital Structure: Meaning & Factors
- (d) Working Capital: Meaning, Importance, Types & Factors affecting its requirements.

UNIT-11: FINANCIAL MARKETS

- (a) Concept of Financial Market: Money Market-Nature, Instruments.
- (b) Capital Market: Nature, and Types-Primary and Secondary Market.
- (c) Distinction between Capital Market and Money Markets.
- (d) Stock Exchange; Meaning, Functions, NSEI, OCTEI, Training Procedure.
- (e) Securities and Exchange Board of India (SEBI): Objectives and Functions.

UNIT-12: MARKETING

- (a) Marketing: Meaning, Function & Role.
- (b) Distinction between Marketing & Selling.
- (c) Marketing Mix: Concept & Elements-
 - (i) Product: Nature, Classification, Branding, Labeling and Packaging.
 - (ii) Physical Distribution: Meaning, Role, Channels of Distribution:-
Meaning, Types, Factors determining choice of channel.
 - (iii) Promotion: Meaning and Role, Promotion Mix, Role of Advertising and Personal Selling, Objectives of Advertising.
 - (iv) Price: Factors influencing Pricing.

UNIT-13: CONSUMER PROTECTION

- (a) Importance of Consumer Protection,
- (b) Consumer Rights.
- (c) Consumer Responsibilities.
- (d) Ways and Means of Consumer Protection: Consumer Awareness and legal redressal with special reference to Consumer Protection Act 1986.
- (e) Role of Consumer Organization and NGO's.

UNIT-14 ENTREPRENEURSHIP DEVELOPMENT

- (a) Entrepreneurship: Concept, Characteristics, Needs and Functions.
- (b) Process of Entrepreneurship Development.
- (c) Entrepreneurial Values, Attitudes and Motivation: Meaning & Concept.

Class-XII
54. ACCOUNTANCY-II
(COMMERCE GROUP)
PAPER – II

Time : 3 Hours

Theory : 35 marks
Project work/ Practical: 15 marks
CCE: 25 marks
Total: 75 marks

Structure of Question Paper (Theory)

1. The question paper will cover whole of the syllabus.
2. There are 3 sections in the question paper i.e. Section A, Section B and Section C. Section A is compulsory for all the students and students may choose only one section from Section B and Section C. Section A, Section B and Section C will be set from the Part-I and Part-II and Part-III of the syllabus respectively.
3. 12 Questions will be set in the question paper.
4. All units of the syllabus should be given adequate representation in the question paper.
5. In **Section A**: Question No. 1 consists of 3 sub parts carrying 1 mark each. Question No. 2 to 5 (Out of which two will be theoretical and two numerical) will carry 2 marks each. Question No. 6 with internal choice will carry 5 marks.
6. In **Section B and C**: Question No. 7 consists of 3 sub parts carrying 1 mark each. Question No. 8 to 10 (Out of which two will be theoretical and one numerical) will carry 2 marks each. Question No. 11 and 12 with internal choice will carry 5 marks each.
7. Question No. 6, 11 and 12, with internal choice, will carry 5 marks each. Of these, any two questions will have internal choice between theoretical and numerical question while any one of these three will have only numerical question as internal choice. Internal choice questions should not be set from the same unit.
8. Objective type questions may include questions with one word or one sentence answer/ fill in the blanks/ multiple choice type questions.
9. Answer of theoretical questions carrying 1, 2 and 5 marks should be given in 1-15 words, 15-20 lines and 3-5 pages respectively.
10. There is no word, line or page limit for numerical questions.
11. The use of non-programmable simple calculator is allowed.

Detail of questions set from each unit

Unit No.	Name of the unit	1 mark questions	2 marks questions	5 marks questions
Section A(Part-I)				
1.	Accounting for not for profit organization	1	1	1
2.	Accounting for partnership	2	1	
3.	Reconstitution or partnership		1	1
4.	Dissolution of partnership firm		1	
Section B(Part-II)				
5.	Accounting for share capital & debentures	1	1	2
6.	Analysis of financial statements	1	1	1
7.	Statement of changes in financial position	1	1	1

OR Section C(Part-III)				
5.	Overview of computerized accounting system	1	1	1
6.	Using computerized accounting system			1
7.	Accounting using DBMS	1	1	1
8.	Accounting application of electronic spread sheet	1	1	1

Project work

Project work is for those students who choose Part-II of the syllabus.

Time: 1 ½ Hours

Max Marks 15

1. The syllabus of project work is same as prescribed for the theory paper i.e. Part I and Part II.
2. Project Note book will consist of at least one comprehensive project and some short answer questions based on the prescribed syllabus.
3. Division of Marks:

Project Note Book 3 marks

Total five questions of 3 marks each will be set.

The students are required to attempt any three (3x3) 9 marks

Viva Voce 3 marks

Practical

Practical is for those students who choose Part-III of the syllabus.

Time: 1 ½ Hours

Max Marks 15

1. The syllabus of project work is same as prescribed for the theory paper of part-III.
2. Practical Note book will consist of the entire practical performed in the computer laboratory based on the prescribed syllabus.
3. Division of Marks:

Practical Note Book 3 marks

The students are required to perform any two

practical out of the given four of 4 marks each. (2X4) 8 marks

Viva Voce 4 marks

SYLLABUS (THEORY)

PART-I

UNIT 1: ACCOUNTING FOR NOT-FOR-PROFIT ORGANIZATION.

1. Meaning, Basic Concepts
2. Receipts and Payments : Meaning and Concept of Fund Based and Non Fund Based Accounting
3. Preparation of Income and Expenditure Account and Balance Sheet from Receipt and Payment Account with additional information.

UNIT 2 : ACCOUNTING FOR PARTNERSHIP

1. Nature of Partnership Firm, Partnership Deed (Meaning and Importance)
2. Final Accounts of Partnership: Fixed v/s Fluctuating Capital, Division of Profit among Partners (excluding guarantee and past adjustments). Preparation of Profit and Loss Appropriation Account

UNIT 3: RECONSTITUTION OF PARTNERSHIP

1. Change in Profit Sharing Ratio among the existing Partners- Sacrificing Ratio and Gaining Ratio
2. Accounting for Revaluation of Assets and Liabilities and Distribution of Reserves and Accumulated Profits
3. Goodwill: Meaning, Nature, Factors affecting and Methods of Valuation. Average Profits, Super Profits and Capitalization Methods
4. Admission of a Partner:- Effect of Admission of Partner, Change in Profit Sharing Ratio, Accounting Treatment of Goodwill (as per accounting standard 10). Revaluation of Assets and Liabilities, Reserves (Accumulated profits) and Adjustment of Capitals
5. Retirement/Death of a Partner: Change in Profit Sharing Ratio, Accounting Treatment of Goodwill, Revaluation of Assets and Liabilities, Treatment of Accumulated Profits (Reserve), Adjustment of continuing P.capitals, Payment to Retiring Partner/ Deceased Partners.

UNIT 4 : DISSOLUTION OF PARTNERSHIP FIRM

Meaning and Various Modes of Dissolution of Partnership Firm, Settlement of Accounts.Preparation of Realization Account and Related Accounts (excluding Piece Meal Distribution, Sale to a Company and Insolvency of a Partner).

NOTE: Students may choose only one Part from Part II and Part III.

PART -II

UNIT-5: ACCOUNTING FOR SHARE CAPITAL AND DEBENTURES

1. Share Capital : Meaning, Nature and Types
2. Accounting for Share Capital : Issue and Allotment of Equity and Prefer Shares, Over Subscription and under Subscription, Issue at Par Securities Premium and at Discount, Calls in Advance, Calls in Arrears, Issue of Shares for Consideration other than cash.
3. Forfeiture of Shares:- Accounting Treatment, Reissue of Forfeited Shares.
4. Presentation of Share and Debenture, Capital in Company's Balance Sheet
5. Issue of Debentures:- Meaning, Types of Debentures, Issue at Par, Premium and Discount, Issue of Debentures for Consideration other than cash, Debenture Issues as Collateral Security.
6. Redemption of Debentures:- Out of proceeds of fresh issue, Accumulated Profits and Sinking Fund.

UNIT 6: ANALYSIS OF FINANCIAL STATEMENTS

1. Financial Statement of Company:- Balance Sheet of a Company in the prescribed form with major heading only (schedule VI)
2. Financial Analysis:- Meaning, Significance and Purpose, Limitations.
3. Tools for Financial Analysis:- Comparative Statements, Common Size Statement and Trend Analysis.
4. Accounting Ratio:- Meaning, Objectives and Types of Ratios:

- (a) Liquidity Ratio :- Current Ratio, Liquidity Ratio.
- (b) Solvency Ratio :- Debt to Equity, Total Assets to Debt, Proprietary Ratio.
- (c) Activity Ratio: Inventory Turnover, Debtors Turnover, Creditors Turnover, Working Capital Turnover, Fixed Assets Turnover, Currents Assets Turnover.
- (d) Profitability Ratio:- Gross Profit, Operating Profit Ratio, Net Profit Ratio, Return on Investment, Earning Per Share Dividend Per Share, Price Earning Ratio.

UNIT 7: STATEMENT OF CHANGES IN FINANCIAL POSITION

Cash Flow Statement:- Meaning and Objectives, Preparation, Adjustments related to Depreciation, Dividend, Tax , Purchase and Sale of non current assets (as per revised standard issued by ICAI)

OR

PART-III

COMPUTERISED ACCOUNTING SYSTEM

UNIT 5: OVERVIEW OF COMPUTERIZED ACCOUNTING SYSTEM

- 4. Concepts and Types of Computerized Accounting System(CAS)
- 5. Features of a Computerized Accounting System
- 6. Structure of a Computerized Accounting System

UNIT 6: USING COMPUTERIZED ACCOUNTING SYSTEM

- 3. Steps in installation of CAS, preparation of chart of accounts, codification and hierarchy of account heads.
- 4. Data Entry, Data Validation and Data Verification.
- 5. Adjustment Entries, Preparation of Financial Statements, Closing Entries and Opening Entries.
- 6. Security of CAS and security features generally available in CAS (Students are expected to understand and practice the entire accounting process using an accounting package).

UNIT 7: ACCOUNTING USING DATA BASE MANAGEMENT SYSTEM(DBMS)

- 1. Concepts of DBMS.
- 2. Objective in DBMS: Tables, Queries, Forms, Reports.
- 3. Creating Data Tables for Accounting
- 4. Using queries, forms and reports for generating accounting information, Applications of DBMS in generating accounting information such as shareholders records, sale reports, customers profile, suppliers profile payroll, employees' profile and petty cash register.

UNIT 8: ACCOUNTING APPLICATION OF ELECTRONIC SPREAD SHEET

- 1. Concept of an Electronic Spread Sheet (ES).
- 2. Features offered by Electronic Spread Sheet.
- 3. Applications of Electronic Spread Sheet in generating Accounting Information, Preparing Depreciation Schedule, Loan Repayment Schedule, Payroll Accounting and other such applications.

Class-XII
55. BUSINESS ECONOMICS & QUANTITATIVE METHODS - II
(COMMERCE GROUP)
PAPER - III

Time: 3 Hours

Theory: 50 Marks

CCE: 25 Marks

Total: 75 Marks

STRUCTURE OF QUESTION PAPER

1. The question paper will cover whole of the syllabus.
2. 11 Questions will be set in the question paper.
3. All units of the syllabus should be given adequate representation in the question paper.
4. Question No. 1 consists of 8 sub parts carrying 1 mark each. Answer of each part should be given in 1-15 words. Objective type questions may include questions with one word or one sentence answer/fill in the blanks/multiple choice type questions.
5. Question No. 2 to 8 will carry 3 marks each. Answer of each question should be given in 15-20 lines.
6. Question No. 9 to 11 will carry 7 marks each with internal choice. Answer of each question should be given in 3-5 pages. Internal choice questions should not be set from the same unit.
7. There is no word, line or page limit for numerical questions.
8. The use of non-programmable simple calculator is allowed.

Detail of questions set from each unit

Syllabus	Units	1 Mark Questions	3 Marks Questions	7 Marks Questions
PART - I	1	1 Q. from unit 1 & 2	1 Q. from units 1 & 2	i) 1 numerical question
Business	2	1	1 Q. from units 3 & 4(A)	with numerical question
Statistics	3	1	1 Q. from unit (B)	as internal choice from
	4			units 1-5
	5	1	1	ii) 1 theoretical question
PART – II	6	1	1	with theoretical question
Introductory	7	1	1	as internal choice from
Macro	8	1	1 Q. from Units 8	units 6-9.
Economics	9	1	& 9	iii) 1 theoretical question
				with numerical question
				as internal choice from
				any part (I or II)
Total questions	9	8	7	3

SYLLABUS

Part-I

BUSINESS STATISTICS

UNIT 1. MEASURES OF CENTRAL TENDENCY

- (i) Arithmetic Mean (Simple and weighted)

- (ii) Median and Mode

UNIT 2. MEASURES OF DISPERSION AND SKEWNESS

A. Measures of Dispersion

- i. Range, Quartile, Decile, Percentile and Quartile Deviation.
- ii. Mean Deviation, Standard Deviation and Coefficient of Variation.

B. Measures of Skewness

- (i) Meaning of Measures of Skewness.
- (ii) Difference between Dispersion & Skewness.
- (iii) Measures of Skewness.
 - a) Absolute Measures
 - b) Relative Measures & Coefficient of Skewness
 - (i) Bowley's Coefficient of Skewness
 - (ii) Kelly's Coefficient of Skewness
 - (iii) Karl Pearson's Coefficient of Skewness

UNIT 3. INDEX NUMBER

- (i) Meaning, Features, Uses and Problems of Construction of Index Number.
- (ii) Methods of Construction of Index Number, Cost of Living Index Numbers, Choice of base for Computing Index Numbers, Base Shifting.

UNIT 4. CORRELATION & REGRESSION ANALYSIS

A CORRELATION

- (i) Meaning, Significance, Cause and Effect Relationship. Types of Correlation.
- (ii) Methods of Correlation:
 - a) Scattered Diagram,
 - b) Graphic Method
 - c) Karl Pearson's Coefficient of Correlation,
 - d) Spearman's Rank Correlation Coefficient
 - e) Concurrent Deviation Method.
- (iii) Probable error, Standard error and Coefficient of Determination.

B REGRESSION ANALYSIS

- (i) Meaning, Uses of Regression Analysis, Relationship between Correlation and Regression analysis
- (ii) Regression Lines
- (iii) Preparation of Regression quotient
- (iv) Standard errors of estimation and Limitation of Regression analysis.

PART-II

INTRODUCTORY MACROECONOMICS

UNIT 5. NATIONAL INCOME AND RELATED AGGREGATES.

- (i) Basic Concepts: Consumption Goods, Capital Goods, Final Goods, Intermediate Goods; Stocks and flows; Gross Investment and Depreciation.
- (ii) Circular Flow of Income, Measurement of National Income-Value Added Method, Income Method and Expenditure Method.

- (iii) Aggregates related to National Income GDP (Gross Domestic Product), GNP (Gross National Product), NDP (Net Domestic Product) , NNP (Net National Product) , (At Market Price and Factor Cost) National Disposable Income (Gross and Net) Private Income, Personal Income and Personal Disposable Income, Real and Nominal GDP.
- (iv) GDP and Welfare

UNIT 6 DETERMINATION OF INCOME AND EMPLOYMENT.

- (i) Aggregate Demand, Aggregate Supply and their Components.
- (ii) Propensity to Consume and Propensity to Save (Average and Marginal)
- (iii) Meaning of Involuntary Unemployment and Full Employment.
- (iv) Determination of Income and Employment-Two Sector Model.
- (v) Concept of Investment Multiplier and its working.
- (vi) Problems of Excess and Deficient Demand.
- (vii) Measures to correct Excess & Deficient Demand, Availability of Credit, Change in Govt. spending.

UNIT 7 MONEY AND BANKING

- (i) Money- Meaning, Evolution and Functions.
- (ii) Supply of Money - Currency held by the Public and Net Demand Deposits held by Commercial Banks.
- (iii) Central Bank- Meaning and Functions (example of Reserve Bank of India) : Bank of Issue, Government Bank, Bankers Banks, Controller of Credit CRR, SLR, Reverse Repo, Open Market Operation, Margin requirement.
- (iv) Commercial Banks- Meaning and Functions.

Unit 8 GOVERNMENT BUDGET AND THE ECONOMY

- (i) Government Budget- Meaning, Components and Objectives.
- (ii) Classification of Receipts- Revenue Receipts and Capital Receipts.
- (iii) Classification of Expenditure-Revenue Expenditure and Capital Expenditure.
- (iv) Balanced Budget-Surplus Budget and Deficit Budget; Meaning and Implications.
- (v) Revenue Deficit, Fiscal Deficit and Primary Deficit; Meaning and Implications; Measures to correct different Deficits.

Unit-9 BALANCE OF PAYMENTS

- (i) Balance of Payment Accounts-Meaning and Components.
- (ii) Balance of Payments Deficit -- Meaning.
- (iii) Foreign Exchange Rate- Meaning (Flexible and Fixed), Merits and Demerits, Determination through Demand and Supply.
- (iv) Determination of Exchange Rate in a Free Market.

Class-XII
56. FUNDAMENTAL OF E-BUSINESS
(COMMERCE GROUP)
PAPER – IV

Time : 3 Hours

Theory: 35 Marks

CCE: 25 Marks

Practical: 15 Marks

Total: 75 Marks

Structure of Question Paper
(Theory)

1. The question paper will cover whole of the syllabus.
2. Eleven questions will be set in Question Paper.
3. All the questions will be compulsory.
4. All units of the syllabus should be given adequate representation in the question paper.
5. The question Paper will have three sections i.e. A, B and C.

Section A

Question number 1 will be objective type consisting of 6 sub parts (i.e. Q. No. 1a to 1f). Each part carry one mark each. Three questions will be set from Part-1 and three questions will be set from Part-2 of the syllabus. Objective type questions may include questions with one word or one sentence answer/fill in the blanks/multiple choice type questions.

Section B

In this section seven questions (i.e. Q. No. 2 to Q. No. 8) carrying two marks each will be set. Three questions will be set from Part-1 and four questions will be set from Part-2 of the syllabus. Answer of each of these questions should be given in 15-20 lines.

Section C

In this section Q. No. 9-11 (i.e. 1 from part-I and 2 from part-II) each with internal choice will be set. Each question will carry 5 marks. Answer of these questions will be given in 3-4 pages of the answer book.

Unit wise Division of Marks

Unit No	Name of the Unit	Section-A One mark questions	Section-B Two marks questions	Section-C 5 marks questions
I	Fundamental of information technology	3	3	1
II	Introduction to electronic commerce	1	2*	1#
III	E-payments			
IV	E-security			
V	B-banking	1	2*	1#
VI	E- trading			
VII	E-marketing			
	Total Marks 35	6QsX1= 6 marks	7QsX2= 14 marks	3QsX5= 15 marks

*: Two questions should not be set from the same unit.

#: Internal choice question should not be set from the same unit

SYLLABUS (THEORY)

Rationale of the Course :

Information technology has great influence on all aspects of our life. All our work places and the living environments are being computerized. In order to prepare students to work in these environments, it is essential that they are exposed to various applications of information technology. One of the important applications of IT is e-business. The term applies to the use of computer network to search and retrieve information in support of human and corporate decision making. It is a modern business methodology that addresses the needs of business organizations, merchants and consumers to cut costs while improving the quality of goods and services and increasing the speed of service- delivery. This exposure will enable the students to enter the world with confidence, live in these environments in a harmonious way and contribute to the productivity.

PART -I

UNIT 1: FUNDAMENTALS OF INFORMATION TECHNOLOGY

1. Concepts and Scope of IT
2. Elements of Computer System: Computer Hardware and Software. Computer Organization.
3. CPU: Memory Input Devices, Output Devices, Storage Devices, and Communication Devices, Multimedia Devices
4. Introduction to operating system

Introduction to Internet

Concept of Internet, Use of Internet, Requirements of Internet, Internet Domain, Internet Server, establishing connectivity on the Internet, Types of Internet Providers, Constituents of Internet Protocol, Browsing the Internet Tools and Service of Internet, Procedure of opening e-mail account on internet.

PART-II

CONCEPTUAL FRAMEWORK OF E-BUSINESS

UNIT 2: INTRODUCTION TO ELECTRONIC COMMERCE

1. Meaning, Features, Functions and Benefit of E-Commerce, E-Commerce Practice vs Traditional Practice, Scope and Basic Models of E-Commerce, Limitations of E-Commerce, Precautions for secure E-Commerce, Proxy Services.
2. Types of E-Commerce, Meaning of B2C, B2B, C2C & P2P.

3. E-Commerce in India: Status of E-Commerce in India, Problems and Opportunity in E-Commerce in India, Future of E-Commerce, Legal issues involved in E-Commerce.

UNIT 3: E-PAYMENTS

Transaction through Internet, Requirements of E-Payment System, Post Paid Payment System, Credit Card Solutions, Cyber Cash Internal Cheques, Instant Paid Payment System, Debit Card, Prepaid Payment System, Electronic Cash, Digi Cash, Net Cash, Cyber Cash, Smart Cards.

UNIT 4: E-SECURITY

Areas of Internet Security, Security Threats, Security Breach Avoidance, Defection and Recovery, Confidentiality and Integrity, Electronic Signature, Access Control, Authentication Precaution for Secure E-Commerce.

UNIT 5: E-BANKING

Meaning, Importance and Types of E-Banking Services. Traditional vs E-Banking, Process of E-Banking, Advantages and Disadvantages of E-Banking, Status of E-Banking in India.

UNIT 6: E- TRADING

Meaning and Importance of E- Trading, Traditional Trading vs E-Trading, Operational Aspects of E-Trading, Advantages of E-Trading, Status of E-Trading in India.

UNIT 7: E-MARKETING

Concept of E- Marketing, 4Ps of E-Marketing, Traditional Marketing vs E-Marketing, Advantages of E-Marketing, Status of E-Marketing in India.

Structure of Question Paper (PRACTICAL)

Time: 1½ Hours

M. Marks: 15

Structure of Practical Question Paper

1. Total five questions (two from Part-1 and three from Part-2) of 3 marks each will be set out of list prescribed for practical. The students are required to perform three practicals selecting at least one from each part. 9 marks.

2. Viva Voce

3 marks.

3. Project Work

3 marks.

SYLLABUS (PRACTICAL)

LIST OF PRACTICALS PART-I

Internet and its applications:

Log into internet.

Navigation for seeking information.

Downloading information from internet.

PART-II

Sending and receiving e-mail.

- (a) Create e-mail account
- (b) Creating a message
- (c) Creating an address book
- (d) Attaching a file with e-mail
- (e) Receiving a message
- (f) Deleting a message

Purchasing through the net.

On-line banking - Operating an ATM.