

A. SCHEME OF STUDIES
11th CLASS EXAMINATION
(SENIOR SECONDARY CERTIFICATE EXAMINATION-I)
(VOCATIONAL STREAM)
ADMISSION YEAR 2011.... ONWARD

Subjects for Studies

(a) Compulsory Subjects : Every candidate shall offer the following subjects :

Sr. No.	Subject	Semester - I				Semester - II			
		Marks				Marks			
		Th.	Pr	CCE	Total	Th.	Pr.	CCE	Total
1.	General English	55	-	25	80	85	-	35	120
2.	General Punjabi	55	-	25	80	85	-	35	120
	Or								
	Punjab History and Culture								
3.*	Environmental Education	55	-	25	80	85	-	35	120
4.*	Computer Science	30	40	10	80	40	60	20	120
5.*	General Foundation Course (GFC)	30	-	10	40	40	-	20	60

Note: For the subjects mentioned at “*” examination will be conducted at school level, grades will be assigned and sent to Board. But the question papers of the said subjects will be supplied by the Board & it will be compulsory for the students to score at least 33%marks/ ‘D’ grade in these subjects to declare then pass. Grading criteria as mentioned below is same as that of academic stream.

For General Foundation Course (G.F.C) :

Marks	Grading
1. 75% & above	‘A’
2. 60% & above but less than 75%	‘B’
3. 45% & above but less than 60%	‘C’
4. 33% & above but less than 45%	‘D’
5. Less than 33%	‘E’

Note : To be declared 'Pass' a student has to clear General Foundation Course minimum with Grade 'D'.

(b) Elective Subjects :

Every candidate shall offer any one trade relating to anyone of the following groups. (Each trade has three compulsory subjects of 80 marks each and 60 marks are for O.J.T.)

- (i) Agriculture Group
- (ii) Business and Commerce Group
- (iii) Home Science Group
- (iv) Engineering & Technology Group
- (v) Humanities and Others Group

Broad distribution of periods per week.

			Periods		
			Th.	P.	Total
Elective Subject	-	I	2	8	10
Elective Subject	-	II	2	8	10
Elective Subject	-	III	2	8	10

- Note :**
1. Six period are for Library Studies/Extra Curricular Activities/ Optional/ Tutorials/ Assignments.
 2. Three weeks are for On-the-job training (O.J.T) every year based on the instructions sent by the Board from time to time.

3. In Semester I, if there is only theory paper in any of the elective subject, the total marks for that paper will be 45 (excluding 20 Marks of CCE) and if there is only practical paper in any of the elective subjects, the total marks for that paper will be 65 and in semester II if there is only theory paper in any of the elective subject, the total marks for that paper will be 65 (excluding 30[Marks of CCE) and if there is only practical paper in any of the elective subjects, the total marks for that paper will be 95.
4. Punjab School Education Board Regulations for Senior Secondary Examination are also applicable to vocational stream.
5. The Board reserves the right to amend syllabus courses and/or scheme of studies as and when it considers necessary.

B. GENERAL FOUNDATION COURSE

Semester-I

Theory

Time: 2:30 hrs

Marks: 30

Internal Assessment: 10

Total Marks: 40

Structure of Question Paper

The question paper will comprise of two parts (Part-I and Part-II). The questions will be evenly distributed from the prescribed syllabus.

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

Part-II will consist of seven questions carrying 6 marks each. Candidate will attempt any four questions out of these. A question may have two or more parts. The answer of each question should not be more than two pages of the answer sheet.

SYLLABUS

PART-A

Semester-I

1. ENTREPRENEURSHIP DEVELOPMENT

a. Entrepreneurship Career Orientation

Alternative career options under vocational stream, wage employment, self employment etc. : Dynamics of entrepreneurship; Importance and Relevance of entrepreneurship career; characteristics, role & reward of an entrepreneur.

b. Entrepreneurial Values

Entrepreneurial value orientation through activities; Innovativeness; Independence; improved performance; Respect for work.

c. Entrepreneurial Attitude

Concept & significance of different entrepreneurial Attitudes; use imagination/intuition; take moderate risk; enjoy freedom of expression and action; look for economic opportunities; find satisfaction from successful completion of tasks; Believe that they can change the environment; Take initiative; Analyze situation; & plan action; Involve in work, activity.

d. Behavioural Competencies

Innovative & risk taking; tolerance to ambiguities; problem solving; persistence; standard/quality of work performance; information seeking; systematic planning; activities.

e. Entrepreneurial Motivation

Data collection about self; introduction to need system & motivational pattern of entrepreneur; conceptualizing entrepreneurial skill & behaviour; Risk taking behaviour; Hope for success & fear of failure; learning from feed back; Understanding motive strength; achievement imageries; intensity of motives; achievement language etc; Personal efficiency-

individual life goal, its linkages to entrepreneurship; Locus of control; Conceptualizing entrepreneurial values; Achievement planning; Influence competence; Entrepreneurial goal setting; Sharing entrepreneurial goal, devising clarity in terms of enterprise building. Coping with difficulties. Reinforcing help seeking ability; Creativity; Understanding & internalizing coping abilities.

**Semester-II
Part-B**

2. ENTERPRISE LAUNCHING COMPETENCIES

a. Project Identification

Definitions of Large Scale Industry (LSI), Medium Scale Industry (MSI), Small Scale Industry (SSI), tiny Sector, cottage and Rural Industries; Classification of Projects- Manufacturing, Service, Trading, Consumer Goods, Capital Goods & Ancillary Goods (Characteristics & Scope of activities of each type), Central and the State Government Policies, Programmes and Incentives with regard to SSI, Tiny sector and new entrepreneurs; Steps in setting up a business enterprise; Information about the various institutions providing help to the existing & potential entrepreneurs; District Industries Centre, Directorate of Industries, Technical Consultancy Organisation; Punjab Financial Corporation, Punjab Small Industries Development Corporation, National Small Industries Corporation, Punjab Small Industries and Export Corporation, Small Industries. Service Institute, Commercial Banks, Co-operative Banks, Punjab State Khadi & Village Industries Board etc., Reservation of Products for exclusive manufacture in SSI Sector.

(The product list should be circulated to the students).

b. Project Selection

Project /Projects Identification, generating ideas for selection of a project,; procedure for short listing the ideas generated; factors to be considered for final selection of the product-Demand, competitors, availability of factors of product-Govt. policy, profit margin etc.

c. Project Formulation & Report

Need for Project Report; Elements (steps) of a Project Report; Determining the Project size keeping in view the manageability, investment possibilities, Production and market aspects; Selection of plant and machinery; Determining Labour and raw material requirements in the form of the information required in the project report (simple project report); Estimating the Project cost, production cost concepts, working capital requirements, profit ratios and the concept of inventory control; Break Even Analysis & profitability rates, capacity utilization indicator, sales revenue indicator; Time scheduling, Project Monitoring and review Technique (Network analysis), Study of typical project report, namely of consumer goods, capital goods, ancillary goods and services, the requirements of the banks and financial institutions, project appraisal-technical, economic, financial, commercial and managerial aspects; Practice Session (Students should practice on the preparation of the project report on the similar projects).

(C) COMPULSORY SUBJECTS

**1. GENERAL ENGLISH
SEMESTER-I**

Time :- 2½ hrs

**Theory : 55 Marks
CCE/I. A.: 25 Marks
Total : 80 Marks**

STRUCTURE OF QUESTION PAPER

Part-A

- 1) Do all questions (15 objective type questions based on total syllabus of Sem-I) 15 marks
(Grammar 8 marks, I Am The People 4 marks, Stories, Plays & Tales of Adventure 3 marks)

- 2) Comprehension passage (I AM THE PEOPLE) 10 marks
- 3) Translation from English into Vernacular. (I Am The People) 3 marks

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

A paragraph to be developed through given situation/outline.

Part-B

- 4 a) Short answer type questions from Stories, Plays & Tales of Adventure (3 questions out of 5 questions) 6 marks
- b) Summary of a poem (1 out of 2 questions) 4 marks

Part-C

- 5 a) Essay type question (one out of two) from Stories, Plays & Tales of Adventure in about 100 words. 4 marks
- b) Essay type question (one out of two) from I Am The People in about 100 words. 6 marks

Part - D

6. Essay writing (Simple/descriptive/Narrative) (one out of three) 7 marks

SEMESTER-II

Time-3 hrs

Theory : 85 Marks
CCE/ I. A.: 35 Marks
Total: 120 Marks

STRUCTURE OF THE QUESTION PAPER

Part-A

- 1) Do all questions (15 objective type questions based on total Syllabus of Sem. II) 15 marks
 (Grammar 8 marks, 1 Am The People 4 marks, Stories, Plays & Tales of Adventure 3 marks).
- 2) Comprehension passage (I AM THE PEOPLE). 12 marks
- 3) Translation from English into Vernacular. (I Am The People) 5 marks

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

A paragraph to be developed through given situation/outline.

Part-B

- 4a) Short answer type questions from Stories, Plays & Tales of Adventure (5 questions out of seven questions) 15 marks
- b) Summary of a poem (1 out of 2 questions) 5 marks

Part-C

- 5 a) Essay type question (one out of two) from Stories, Plays & Tales of Adventure in about 125 words. 7 marks
- b) Essay type question (one out of two) from I Am The People in about 125 words. 8 marks

Part-D

- 6a) Paragraph writing with given situation (one out of three) 9 marks
- b) Letter Writing (personal) (one out of two) 9 marks

MARKING SCHEME FOR COMPREHENSION

S.No.	Questions	Sem. I M.M. 10	Sem. II M.M. 12
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1.	Name of writer and chapter	2 marks	2 marks
2.	Short question	1 mark	1 mark
3.	Short question	1 mark	1 mark
4.	Short question	1 mark	1 mark
5.	Match the following (two)	2 marks	2 marks
6.	Question on Prefix, suffix (two)	1 mark	2 marks
7.	Fill in the blanks (two)	1 mark	1 mark
8.	Give meanings in simple English (two)	1 mark	2 marks

INSTRUCTIONS FOR OBJECTIVE TYPE QUESTIONS

Objective type question for Semester-I will cover the whole syllabus prescribed for Semester-I and Semester-II Objective type question will cover the whole syllabus prescribed for Semester-II.

Note: All questions will be strictly based on the syllabus.

All sub-questions are compulsory (marks-15)

Grammar: - 8

I Am The People : - 4

Stories, Plays and Tales of Adventure:-3

Q1.a) Do as directed:

- Change the Tenses (2)
- Change the Voice (2)
- Change the Narration (2)
- Common Errors

Or

- Simple Idioms (2)

b) One line answer question from I Am The People. (4)

c) One line answer question from Stories, Plays and Tales of Adventure (3)

Pattern of question 1 will be the same for both the Semesters.

SYLLABUS (SEMESTER-I)

Book-1: I AM THE PEOPLE

1. The Portrait of A Lady
I am the People-the Mob
2. The Kite Maker
Success is counted sweetest
3. My Struggle for an Education
4. Dialogue on Civilization
5. Upagupta
6. Paul Julius Reuter

Book-II: Stories, Plays and Tales of Adventure

1. Sparrows
2. The Last Leaf
3. My Brother, My Brother
4. The Other Side
5. My Lost Dollar

i) GRAMMAR

- (a) Tenses
- (b) Voice (simple)
- (c) Reported Speech (simple)

- (d) Simple idioms
- (e) Common errors

ii) **COMPOSITION**
Simple/descriptive/narrative essay.

SYLLABUS (SEMESTER-II)

Book-I: I Am The People

6. The Appointed Day
The Little Black Boy
7. No Time For Fear
8. Father Has A Bad Night
9. To Sir, With Love
The Eagle
10. Taming the Atom
Snake
11. Hunting Big Game with the Camera
Confessions of a Born Spectator

Book- II: Stories, Plays and Tales of Adventure

6. The Pomegranate Trees
7. The Model Millionaire
8. The Counts Revenge
9. My Ordeal in a Jungle Air Crash
10. Escape Velocity
11. "Don't Die, Graham Don't Die!"

GRAMMAR

- i) (a) Tenses
(b) Voice (Simple)
(c) Reported Speech (Simple)
(d) Simple Idioms
(e) Common Errors

COMPOSITION:

- (a) Paragraph writing
(b) Letter writing (Personal)

2. ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ ਸਮੇਸਟਰ-I

ਸਮਾਂ : 2½ ਘੰਟੇ

ਲਿਖਤੀ ਪੇਪਰ : 55 ਅੰਕ
ਸੀ.ਸੀ.ਈ./ਆਂਤਰਿਕ ਮੁਲਾਂਕਣ : 25 ਅੰਕ
ਕੁੱਲ : 80 ਅੰਕ

ਅਧਿਆਪਕਾਂ, ਵਿਦਿਆਰਥੀਆਂ, ਪੇਪਰ ਸੈਂਟਰਾਂ ਤੇ ਪਰੀਖਿਅਕਾਂ ਲਈ ਵਿਸ਼ੇਸ਼ ਹਿਦਾਇਤਾਂ।

ਪ੍ਰਸ਼ਨ 1 : ਸਮੇਸਟਰਾਂ ਦੇ ਪਾਠ-ਕ੍ਰਮ ਦੇ ਆਧਾਰ ਉੱਤੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਅੰਕਾਂ ਦੀ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ :

- ਪੰਜਾਬੀ ਲੋਕ-ਸਾਹਿਤ : 4 ਅੰਕ (ਬਹੁ-ਚੋਣ, ਗਲਤ/ਠੀਕ, ਖਾਲੀ ਥਾਂਵਾਂ ਜਾਂ ਇੱਕ-ਦੋ ਸ਼ਬਦਾਂ ਦੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ)।
1. ਲੋਕ-ਗੀਤ : 2 ਅੰਕ ਦੇ ਦੋ ਪ੍ਰਸ਼ਨ - ਇੱਕ ਪ੍ਰਸ਼ਨ ਨਿਰਧਾਰਿਤ ਪਾਠ-ਸਮਗਰੀ ਦੀ ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਇੱਕ ਪ੍ਰਸ਼ਨ ਨਿਰਧਾਰਿਤ ਪਾਠ-ਸਮਗਰੀ ਦੇ ਆਧਾਰ 'ਤੇ ਪੁੱਛਿਆ ਜਾਵੇਗਾ।
2. ਲੋਕ-ਕਥਾਵਾਂ : 2 ਅੰਕ ਦੇ ਦੋ ਪ੍ਰਸ਼ਨ - ਇੱਕ ਪ੍ਰਸ਼ਨ ਵਿਭਿੰਨ ਲੋਕ-ਕਥਾਵਾਂ ਦੀ ਪਰਿਭਾਸ਼ਾ ਸੰਬੰਧੀ, ਇੱਕ ਪ੍ਰਸ਼ਨ ਪਾਤਰਾਂ ਸੰਬੰਧੀ।

ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿੱਚ ਅਨੁਵਾਦ : 4 ਅੰਕ (ਸਿੱਧਾ ਅਰਥ ਪੁੱਛਣਾ, ਬਹੁ-ਚੋਣ, ਮਿਲਾਨ ਕਰਨ/ਸਮੈਸਟਰ-1 ਵਿੱਚ ਇਹ ਪ੍ਰਸ਼ਨ 'ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ' ਵਿੱਚੋਂ ਹੋਣਗੇ)

ਮੁਹਾਵਰੇ : 2 ਅੰਕ (1 ਅੰਕ ਵਰਤੋਂ ਸਥਿਤੀ ਦੱਸ ਕੇ ਢੁਕਵਾਂ ਮੁਹਾਵਰਾ ਪੁੱਛਣਾ, 1 ਅੰਕ ਮੁਹਾਵਰੇ ਦੇ ਅਰਥ ਨਾਲ ਸੰਬੰਧਿਤ ਬਹੁ-ਚੋਣੀ ਪ੍ਰਸ਼ਨ)

- ਪ੍ਰਸ਼ਨ 2 : ਪੰਜਾਬੀ ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਲੋਕ-ਗੀਤਾਂ ਬਾਰੇ ਦਿੱਤੇ ਪਾਠ-ਅਭਿਆਸਾਂ ਦੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕੋਈ ਚਾਰ ਪ੍ਰਸ਼ਨ ਪੁੱਛ ਕੇ, ਦੋ ਦਾ ਉੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 3+3=6 ਅੰਕ
- ਪ੍ਰਸ਼ਨ 3 : ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਦਿੱਤੀਆਂ ਵੱਖ-ਵੱਖ ਵੰਨਗੀਆਂ ਦੀਆਂ ਲੋਕ-ਕਥਾਵਾਂ ਵਿੱਚੋਂ ਦੋ ਦੇ ਨਾਂ ਦੇ ਕੇ, ਕਿਸੇ ਇੱਕ ਕਥਾ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 6 ਅੰਕ
- ਪ੍ਰਸ਼ਨ 4 : ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਬੈਂਕ ਅਤੇ ਰੇਲਵੇ ਨਾਲ ਸੰਬੰਧਿਤ ਅੰਗਰੇਜ਼ੀ ਦੇ 5 ਵਾਕ ਦੇ ਕੇ, ਕੋਈ ਤਿੰਨ ਵਾਕਾਂ ਦਾ ਪੰਜਾਬੀ ਅਨੁਵਾਦ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 3×1=3 ਅੰਕ
- ਪ੍ਰਸ਼ਨ 5 : ਕਿਸੇ ਮਸਲੇ/ਘਟਨਾ ਬਾਰੇ ਕਿਸੇ ਅਖ਼ਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖਣ ਲਈ ਦੋ ਵਿਸ਼ੇ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਬਾਰੇ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 2+4+2=8 ਅੰਕ
- ਪ੍ਰਸ਼ਨ 6 : ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਦਿੱਤੀਆਂ ਵੰਨਗੀਆਂ ਅਨੁਸਾਰ, ਇੱਕ ਇਸ਼ਤਿਹਾਰ ਜਾਂ ਸੱਦਾ-ਪੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। ਦੋ ਵਿਸ਼ੇ ਦਿੱਤੇ ਹੋਣਗੇ। ਇਹਨਾਂ ਵਿੱਚੋਂ ਇੱਕ ਬਾਰੇ ਲਿਖਣਾ ਹੋਵੇਗਾ। 6 ਅੰਕ
- ਪ੍ਰਸ਼ਨ 7 : ਕੋਈ ਤਿੰਨ ਵਿਸ਼ੇ ਦੇ ਕੇ, ਕਿਸੇ ਇੱਕ ਬਾਰੇ ਲਗ-ਪਗ 15● ਸ਼ਬਦਾਂ ਦੀ ਪੈਰਾ ਰਚਨਾ ਕਰਨ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 8 ਅੰਕ
- ਪ੍ਰਸ਼ਨ 8 : ਪੰਜਾਬੀ ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਕੋਈ ਸੱਤ ਮੁਹਾਵਰੇ ਦੇ ਕੇ ਉਹਨਾਂ ਵਿੱਚੋਂ 4 ਨੂੰ ਵਾਕਾਂ ਵਿੱਚ ਵਰਤਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 2+2+2+2=8 ਅੰਕ

ਪਾਠ-ਕ੍ਰਮ ਭਾਗ-ਪਹਿਲਾ

ਅਧਿਆਇ-1 ਪੰਜਾਬੀ ਲੋਕ ਸਾਹਿਤ

- | | | |
|------------------|---------------------------|----------------|
| (i) ਸੁਹਾਗ | (ii) ਘੋੜੀਆਂ | (iii) ਸਿੱਠਣੀਆਂ |
| (iv) ਮਿੱਥ-ਕਥਾਵਾਂ | : ਪ੍ਰਹਿਲਾਦ ਭਗਤ, ਨਲ ਦਮਯੰਤੀ | |
| (v) ਪਰੀ - ਕਥਾਵਾਂ | : ਸਬਜ਼ ਪਰੀ, ਨੀਲ ਕਮਲ | |

ਭਾਗ-ਦੂਜਾ

ਅਧਿਆਇ-2 ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਅਨੁਵਾਦ

- (i) ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ
- (ii) ਬੈਂਕ ਸੇਵਾਵਾਂ ਨਾਲ ਸੰਬੰਧਿਤ ਵਾਕ
- (iii) ਰੇਲਵੇ ਸੇਵਾਵਾਂ ਨਾਲ ਸੰਬੰਧਿਤ ਵਾਕ

ਅਧਿਆਇ-3 ਅਖ਼ਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ

- (i) ਪੱਤਰ ਨੰ: 1 ਤੋਂ ਪੱਤਰ ਨੰ: 5
(ii) ਅਭਿਆਸ ਵਿਚਲੇ ਪੱਤਰ 1 ਤੋਂ 6

ਅਧਿਆਇ-4 ਇਸ਼ਤਿਹਾਰ- ਸੱਦਾ ਪੱਤਰ

- (i) ਇਸ਼ਤਿਹਾਰ 1 ਤੋਂ 14 ਤੱਕ
(ii) ਸੱਦਾ ਪੱਤਰ 1 ਤੋਂ 4 ਤੱਕ

ਅਧਿਆਇ-5 ਪੈਰਾ ਰਚਨਾ

- (i) ਪੈਰਾ ਰਚਨਾ 1 ਤੋਂ 10 ਤੱਕ
(ii) ਅਭਿਆਸ ਵਿਚਲੇ ਪੈਰਾ ਰਚਨਾ 1 ਤੋਂ 5 ਤੱਕ

ਅਧਿਆਇ-6 ਮੁਹਾਵਰੇ

- (i) 1 ਤੋਂ 40 ਤੱਕ

ਸਮੈਸਟਰ-II

ਸਮਾਂ : 3 ਘੰਟੇ

ਲਿਖਤੀ ਪੇਪਰ : 85 ਅੰਕ
ਸੀ.ਸੀ.ਈ./ਆਂਤਰਿਕ ਮੁਲਾਂਕਣ : 35 ਅੰਕ
ਕੁੱਲ : 120 ਅੰਕ

ਅਧਿਆਪਕਾਂ, ਵਿਦਿਆਰਥੀਆਂ, ਪੇਪਰ ਸੈਂਟਰਾਂ ਤੇ ਪਰੀਖਿਅਕਾਂ ਲਈ ਵਿਸ਼ੇਸ਼ ਹਿਦਾਇਤਾਂ।

ਪ੍ਰਸ਼ਨ 1 : ਸਮੈਸਟਰ-II ਦੇ ਪਾਠ-ਕ੍ਰਮ ਦੇ ਆਧਾਰ ਉੱਤੇ ਸੰਖੇਪ ਉੱਤਰਾਂ ਵਾਲੇ 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਅੰਕਾਂ ਦੀ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ :

- ਪੰਜਾਬੀ ਲੋਕ-ਸਾਹਿਤ : 4 ਅੰਕ (ਬਹੁ-ਚੋਣ, ਗਲਤ/ਠੀਕ, ਖ਼ਾਲੀ ਥਾਂਵਾਂ ਜਾਂ ਇੱਕ-ਦੋ ਸ਼ਬਦਾਂ ਦੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ)।
1. ਲੋਕ-ਗੀਤ : 2 ਅੰਕ ਦੇ ਦੋ ਪ੍ਰਸ਼ਨ - ਇੱਕ ਪ੍ਰਸ਼ਨ ਨਿਰਧਾਰਿਤ ਪਾਠ-ਸਮਗਰੀ ਦੀ ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਇੱਕ ਪ੍ਰਸ਼ਨ ਨਿਰਧਾਰਿਤ ਪਾਠ-ਸਮਗਰੀ ਦੇ ਆਧਾਰ 'ਤੇ ਪੁੱਛਿਆ ਜਾਵੇਗਾ।
2. ਲੋਕ-ਕਥਾਵਾਂ : 2 ਅੰਕ ਦੇ ਦੋ ਪ੍ਰਸ਼ਨ - ਇੱਕ ਪ੍ਰਸ਼ਨ ਵਿਭਿੰਨ ਲੋਕ-ਕਥਾਵਾਂ ਦੀ ਪਰਿਭਾਸ਼ਾ ਸੰਬੰਧੀ, ਇੱਕ ਪ੍ਰਸ਼ਨ ਪਾਤਰਾਂ ਸੰਬੰਧੀ।

ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਵਿੱਚ ਅਨੁਵਾਦ : 4 ਅੰਕ (ਸਿੱਧਾ ਅਰਥ ਪੁੱਛਣਾ, ਬਹੁ-ਚੋਣ, ਮਿਲਾਨ ਕਰਨ/ਸਮੈਸਟਰ-1 ਵਿੱਚ ਇਹ ਪ੍ਰਸ਼ਨ 'ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ' ਵਿੱਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਮੈਸਟਰ-2 ਵਿੱਚ ਇਹ ਪ੍ਰਸ਼ਨ 'ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ' ਵਿੱਚੋਂ ਅਤੇ ਸਮੈਸਟਰ-2 ਵਿੱਚ ਵੱਖ-ਵੱਖ ਵਿਸ਼ਿਆਂ ਨਾਲ ਸੰਬੰਧਿਤ ਸ਼ਬਦਾਵਲੀ ਵਿੱਚੋਂ ਹੋਣਗੇ।

ਮੁਹਾਵਰੇ : 2 ਅੰਕ (1 ਅੰਕ ਵਰਤੋਂ ਸਥਿਤੀ ਦੱਸ ਕੇ ਢੁਕਵਾਂ ਮੁਹਾਵਰਾ ਪੁੱਛਣਾ, 1 ਅੰਕ ਮੁਹਾਵਰੇ ਦੇ ਅਰਥ ਨਾਲ ਸੰਬੰਧਿਤ ਬਹੁ-ਚੋਣੀ ਪ੍ਰਸ਼ਨ) 4+4+2=10 ਅੰਕ

ਪ੍ਰਸ਼ਨ 2 : ਪੰਜਾਬੀ ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਲੋਕ-ਗੀਤਾਂ ਬਾਰੇ ਦਿੱਤੇ ਪਾਠ-ਅਭਿਆਸਾਂ ਦੇ ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕੋਈ ਪੰਜ ਪ੍ਰਸ਼ਨ ਪੁੱਛ ਕੇ, ਤਿੰਨ ਦਾ ਉੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 5+5+5=15 ਅੰਕ

ਪ੍ਰਸ਼ਨ 3 : ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਦਿੱਤੀਆਂ ਵੱਖ-ਵੱਖ ਵੰਨਗੀਆਂ ਦੀਆਂ ਲੋਕ-ਕਥਾਵਾਂ ਵਿੱਚੋਂ ਦੋ ਦੋ ਨਾਂ ਦੇ ਕੇ, ਕਿਸੇ ਇੱਕ ਕਥਾ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 10 ਅੰਕ

ਪ੍ਰਸ਼ਨ 4 : ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਡਾਕ ਅਤੇ ਬੀਮਾ ਸੇਵਾਵਾਂ ਨਾਲ ਸੰਬੰਧਿਤ ਅੰਗਰੇਜ਼ੀ ਦੇ 7 ਵਾਕ ਦੇ ਕੇ, ਕੋਈ 5 ਵਾਕਾਂ ਦਾ ਪੰਜਾਬੀ ਅਨੁਵਾਦ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 1×5=5 ਅੰਕ

ਪ੍ਰਸ਼ਨ 5 : ਕਿਸੇ ਮਸਲੇ/ਘਟਨਾ ਬਾਰੇ ਕਿਸੇ ਅਖ਼ਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖਣ ਲਈ ਦੋ ਵਿਸ਼ੇ ਦੇ ਕੇ ਕਿਸੇ ਇੱਕ ਬਾਰੇ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। 2+6+2=10 ਅੰਕ

ਪ੍ਰਸ਼ਨ 6 : ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚ ਦਿੱਤੀਆਂ ਵੰਨਗੀਆਂ ਅਨੁਸਾਰ, ਇੱਕ ਇਸ਼ਤਿਹਾਰ ਜਾਂ ਸੱਦਾ-ਪੱਤਰ ਲਿਖਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ। ਦੋ ਵਿਸ਼ੇ ਦਿੱਤੇ ਹੋਣਗੇ। ਇਹਨਾਂ ਵਿੱਚੋਂ ਇੱਕ ਬਾਰੇ ਲਿਖਣਾ ਹੋਵੇਗਾ। 10 ਅੰਕ

ਪ੍ਰਸ਼ਨ 7 : ਕੋਈ ਤਿੰਨ ਵਿਸ਼ੇ ਦੇ ਕੇ, ਕਿਸੇ ਇੱਕ ਬਾਰੇ ਲਗ-ਪਗ 15● ਸ਼ਬਦਾਂ ਦੀ ਪੈਰਾ ਰਚਨਾ ਕਰਨ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ।

15 ਅੰਕ

ਪ੍ਰਸ਼ਨ 8 : ਪੰਜਾਬੀ ਪਾਠ-ਪੁਸਤਕ ਵਿੱਚੋਂ ਕੋਈ ਅੱਠ ਮੁਹਾਵਰੇ ਦੇ ਕੇ ਉਹਨਾਂ ਵਿੱਚੋਂ 5 ਨੂੰ ਵਾਕਾਂ ਵਿੱਚ ਵਰਤਣ ਲਈ ਕਿਹਾ ਜਾਵੇਗਾ।

2+2+2+2+2=10● ਅੰਕ

ਸਮੇਸਟਰ-II

ਪਾਠ-ਕ੍ਰਮ

ਭਾਗ-ਪਹਿਲਾ

ਅਧਿਆਇ-1 ਪੰਜਾਬੀ ਲੋਕ ਸਾਹਿਤ

- | | |
|--------------------|----------------------|
| (i) ਟੱਪਾ | (ii) ਬੋਲੀਆਂ (ਲੰਮੀਆਂ) |
| (iii) ਢੋਲਾ | (iv) ਮਾਹੀਆ |
| (v) ਨੀਤੀ ਕਥਾਵਾਂ | (vi) ਦੰਤ ਕਥਾਵਾਂ |
| (vii) ਪ੍ਰੀਤ ਕਥਾਵਾਂ | |

ਭਾਗ-ਦੂਜਾ

ਅਧਿਆਇ-2 ਅੰਗਰੇਜ਼ੀ ਤੋਂ ਪੰਜਾਬੀ ਅਨੁਵਾਦ

- ਵੱਖ-ਵੱਖ ਵਿਸ਼ਿਆਂ ਨਾਲ ਸੰਬੰਧਿਤ ਸ਼ਬਦਾਵਲੀ
- ਡਾਕ ਸੇਵਾਵਾਂ ਨਾਲ ਸੰਬੰਧਿਤ ਸ਼ਬਦਾਵਲੀ
- ਬੀਮਾ ਸੇਵਾਵਾਂ ਨਾਲ ਸੰਬੰਧਿਤ ਸ਼ਬਦਾਵਲੀ

ਅਧਿਆਇ-3 ਅਖ਼ਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ

- ਪੱਤਰ ਨੰ: 6 ਤੋਂ 12 ਤੱਕ
- ਅਭਿਆਸ ਵਿਚਲੇ ਪੱਤਰ 7 ਤੋਂ 16 ਤੱਕ

ਅਧਿਆਇ-4 ਇਸ਼ਤਿਹਾਰ -ਸੱਦਾ ਪੱਤਰ

- ਇਸ਼ਤਿਹਾਰ 15 ਤੋਂ 25 ਤੱਕ
- ਸੱਦਾ-ਪੱਤਰ 5 ਤੋਂ 10 ਤੱਕ

ਅਧਿਆਇ-5 ਪੈਰਾ ਰਚਨਾ

- ਪੈਰਾ ਰਚਨਾ 11 ਤੋਂ 18 ਤੱਕ
- ਪੈਰਾ ਅਭਿਆਸ 'ਚੋਂ 6 ਤੋਂ 19 ਤੱਕ

ਅਧਿਆਇ-6 ਮੁਹਾਵਰੇ

- 41 ਤੋਂ 102 ਤੱਕ

3. PUNJAB HISTORY & CULTURE SEMESTER-I

Time-2 ½Hours

Theory : 55 Marks
CCE/Internal Assessment: 25 Marks
Total : 80 Marks

STRUCTURE OF THE QUESTION PAPER

- There will be 20 questions in all. All questions will be compulsory.
- Question No. 1 to 10 will carry 1 mark each. Answer to each question should be in about 10 - 15 words.
- Question No. 11 to 15 will carry 2 marks each. Answer to each question should

1x10=10

- be in about 20 - 25 words. 2x5=10
4. Question No. 16 to 18 will carry 5 marks each. Answer to each question should be in about 80-85 words. 5x3=15
5. Question No. 19 & 20 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. 10x2=20
6. Language of question paper should be simple and straight. No question should be based on quotation.
7. All units of the syllabus should be given adequate representation in the question paper.

SYLLABUS

1. The land of the people.
2. The age of the Harappa Culture.
3. The Age of the Vedic Aryans.
4. From the Buddha to Ashoka.

SEMESTER-II

Time : 3 hours

Theory : 85 Marks
CCE/Int. Ass. : 35 Marks
Total : 120 Marks

STRUCTURE OF QUESTION PAPER

1. There will be 24 questions in all. All the question will be compulsory.
2. Questions No. 1 to 10 will carry 1 marks each. Answer of each question should be in about 10-15 words. 1x10 = 10
3. Questions No. 11 to 15 will carry 2 marks each. Answer of each question should be in about 20-25 words. 2x5 = 10
4. Questions No. 16 to 21 will carry 5 marks each. Answer of each question should be in about 80-85 words. 5x6 = 30
5. Questions No. 22 to 24 will carry 10 marks each. Answer of each question should be in about 250-300 words. There will be 100% internal choice in these questions. The paper-setter should not set more than one such question from one chapter. 10x3 = 30
6. Language of question paper should be simple and straight. No question should be based on quotation.
7. All units of the syllabus should be given adequate representation in the question paper.

SYLLABUS

- 1) Invasions and impact.
- 2) The Gupta-Vardhana Age.
- 3) The Turks in the Punjab.
- 4) Education and Literature.
- 5) Art and Architecture.
- 6) The Siddhas and the Sufis.

4. ENVIRONMENT EDUCATION SEMESTER-I

Time : 2½ hrs.

**Theory: 30 Marks
CCE/Int. Ass.: 10 Marks
Total: 40 Marks**

STRUCTURE OF QUESTION PAPER

1. There will be one theory paper comprising of 14 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. 6-9 are short answer type questions carrying 2 marks each. Answer to each question will be in 20-30 words.
4. Question No. 10-13 are short answer type questions carrying 3 marks each. Answer to each question will be in 40-50 words.
5. Question No. 14 is long answer type question carrying 5 marks each. Answer to this question will be in 80-100 words.

Questions	No. of Questions	Division of Mark	Total Marks
1 – 5	5	$5 \times 1 = 5$	5
6 – 9	4	$4 \times 2 = 8$	8
10 – 13	4	$4 \times 3 = 12$	12
14	1	$1 \times 5 = 5$	5
Total	14		30

SYLLABUS

Unit-I: Man and Environment

Lessons

1. Environment
2. Population and environment
3. Impact of Human Activities on Environment

Unit-II: Environment and Development

Lessons

4. Economic and Social Development
5. Impact of Liberalization and Globalization
6. Role of Society in Development and environment

SEMESTER-I

Unit-I: Man and Environment

1. Environment

- Dimensions of Environment-physical, biological and social.
- Human being as rational and social partner in environmental actions.
- Society and environment in India: Indian traditions, customs and culture past and present.

2. Population and environment

- Population and Environment

3. Impact of Human Activities on Environment

- Environmental problems of urban and rural areas.
- Natural resources and their depletion

- Stress on civic amenities, supply of water and electricity, waste disposal, transport, health services.
- Vehicular emissions.
- Urbanisations-land use, housing, migrating and floating population.

Unit-II: Environment and Development

4. Economic and Social Development

- Economic and social needs as basic considerations for development
- Agriculture and industry as major sector of Development
- Social factors affecting development-poverty, affluence, education, employment, child marriage and child labour, human health-HIV/AIDS social culture and ethical values.

5. Impact of Liberalization and Globalization

- Impact of liberalization and globalization-agriculture and industries, dislocation of manpower and unemployment implications for social harmony.

6. Role of Society in Development and environment

- Role of Society in Development and environment-public awareness through education, eco-clubs, population education programme campaigns, public participation in decision-making.

SEMESTER-I

CCE

Exemplar projects and activities

It is expected that students will undertake two projects or activities, one of which should be undertaken individually and they will prepare 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 changes that have taken place in the given land area of a city/village/locality/market during the last five years in respect of atleast five parameters like number of houses, residents and families, food habits, number of household goods in a family, consumption of water, electricity and fuels sources of noise (public address systems being used, television, radio and vehicles on the road), common facilities like number of schools, hospitals, shops, theatres, public convenience, public utilities, public transport, number of factories, industries and/or the facilities for production and processing of goods, loss of water bodies, types and quality of wastes, their disposal and treatment facilities with a view to discussing the patterns of changes and impact on the environment and quality of life. One specific project on these aspects may be to study the number of houses, residents and land area during the last five years in respect of the number of houses, residents and families and to prepare a report on their effects of civic amenities like availability of water, electricity and fuels, the drainage system, disposal of wastes including night soil.
- To study the environment profile of a town/locality/village in respect of population density, green cover; educational level of residents, social problems and sources of pollution and their effects on air, water and soil.

SEMESTER-II

Time : 3 hrs.

Theory : 40 Marks
CCE/Int. Ass.: 20 Marks
Total : 60 Marks

STRUCTURE OF QUESTION PAPER

1. There will be one theory paper comprising of 17 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. 16-17 is long answer type question carrying 5 marks each. Answer to this question will be in 80-100 words.

Questions	No. of Questions	Division of Mark	Total Marks
1 – 5	5	$5 \times 1 = 5$	5
6 – 10	5	$5 \times 2 = 10$	10
11 – 15	5	$5 \times 3 = 15$	15
16-17	2	$2 \times 5 = 10$	10
Total	17		40

SYLLABUS

Unit-III: Environmental Pollution and Global Issue

7. Environmental Pollution
8. Pollution and Diseases
9. Global Issues and Improvement of Environment
10. Disaster

Unit-IV: Energy

11. Energy Consumption
12. Conventional Sources of Energy
13. Non-Conventional Sources of Energy
14. Conservation of Energy

Unit-V: Safe Work Environment and Occupational Hazards

15. Safe Work Environment
16. Safety Laws, Accidents and First-Aid

Unit-III: Environmental Pollution and Global Issue

7. Environmental Pollution

- Air water (fresh and marine), soil pollution-sources and consequences.
- Noise and radiation pollution-sources and consequences.
- Solid, liquid and gaseous pollution

8. Pollution and Diseases

- Handling of hazardous material and process and management of hazardous wastes.
- Pollution related diseases.
- Strategies for reducing pollution and improving the environment.

9. Global Issues and Improvement of Environment

- Ozone Layer depletion and its effects.
- Greenhouse effect global warming and climate changes and their effects on human society, agriculture, plants and animals.

10. Disaster

- Disaster-natural (earthquake, droughts, floods, cyclones, landslides) and man made (technological and industrial), their impact on the environment, prevention, control and mitigation.

Unit-IV: Energy

11. Energy Consumption

- Changing global patterns of energy consumption-from ancient to modern times.
- Energy consumption as a measure of quality of life.
- Rising demand of energy gap between demand and supply (Indian context).

12. Conventional Sources of Energy

- Conventional energy sources-fossil fuels and firewood, potential (Indian context) and limitations of each source, methods of harnessing energy and consequences of their Non-judicious use.

13. Non-Conventional Sources of Energy

- Non-conventional energy sources-type of non-conventional sources (bio-mass, solar, wind, ocean, hydel, geothermal, nuclear), potential (Indian context) and limitations of each source, methods of harnessing energy and their environmental consequences, need to promote non-conventional energy sources.

14. Conservation of Energy

- Conservation of energy sources-efficiency in production, transportation and utilization of energy.
- Future sources of energy-hydrogen, alcohol, fuel cells.

Unit-V: Safe Work Environment and Occupational Hazards

15. Safe Work Environment

- Safe work environment-adequate light, ventilation, cleanliness, good house keeping.

16. Safety Laws, Accidents and First-Aid

- Safety awareness management-safety precautions-home and work (laboratory, workshop, work site), safe handling of equipments and material.
- Occupational hazards-physical, chemical, mechanical, electrical, biological, radiational and psychological.
- Accidents and major hazards in industries and occupations-fire, explosion, toxic release.
- First aid measures.
- Laws and regulations related to occupational health and safety.

SEMESTER-II

CCE

Exemplar projects and activities

It is expected that students will undertake two projects or activities, one of which should be undertaken individually, and they will prepare 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 improvise two models of greenhouses of similar dimensions made from low cost/on cost material, to place them in open under identical conditions; and put some potted plants in one of them to note the temperature inside and outside of both the greenhouses every two hours from dawn to dusk for two weeks. To explain the reasons, the differences in temperature, if any, between the two green houses.
- To collect data on monthly consumption of electricity and fuels from atleast five families, any two commercial establishments and four public utilities in given locality. To plan strategies for educating consumers to economies of the consumption of electricity and fuel by reducing their over-use, misuse and improper use.
- To study for a period of one month the status of sanitary conditions and method of waste disposal of a given locality vis-à-vis the role of Panchayat, Municipality or Corporation and to prepare an action plan for making the conditions more environment friendly.
- To investigate the impact of an industry or a large manufacturing unit on* the local environment. The parameters could be land use, the ratio of the covered area and the open space, the raw materials used for production, inputs like electricity and water, the types of waste generated and the modes of waste disposal, use of environment friendly and efficient technology, types of pollutants emitted or discharged, the average healthy status of the employees and residents in the area.
- To collect samples of water from different sources and study their physical characteristics like turbidity, colour, odour, the measures of pH. the nature of suspended and dissolved impurities and pollutants, the presence of toxic materials like mercury, lead, arsenic, fluorine and the presence of living organisms. For testing the presence of toxic materials and living organisms the help of local laboratory and institution may be taken, if available. To identify the most polluted sample of water and locate the sources of its pollution. To devise an action plan for mobilizing public opinion for checking the pollution.
- To prepare a status report on the prevalence of child labour in a given area through a simple surveys on children engaged as domestic help, as workers in farms, commercial establishment and manufacturing units. The survey may be in respect of age group, education, wages, working hours, working conditions, safety in work place, healthy handling of hazardous materials. Units dealing with hazardous materials and processes may be identified and an action plan for mobilizing public opinion against the practice of child labour may be prepared.
- To prepare a flow chart to show different steps involved the supply of tap water from the source (river, bore-well) to houses in the locality. To collect information from the concerned authorities about the quantity of water processed and the amount of energy required for the purpose at each stage. To compute the energy spent for supplying one kilolitre of water to the consumer. To plan and execute a campaign to educate the community members about the implications of wastage of water in terms of energy.
- To conduct a survey through observation and interviews about the prevailing work environment of an establishment such as workshop, factory, manufacturing unit, hospital or any other related to a specific vocation and prepare a report highlighting the presence or absence of the desirable environmental conditions.
- To study through observation and interviews, practices followed by the workers in handling hazardous chemicals or hazardous processes and to prepare an action plan suggesting to remedial measures.
- To prepare a model action plan for generation of biogas and other useful products from biodegradable and non-biodegradable wastes on the basis of data collected from a village or locality indicating environmental and economic benefits.

- To study through observation and interviews the extent of adherence to the prescribed norms of safety in the manufacturing units and automobile workshops in the locality and to prepare a report thereon.

5. ਕੰਪਿਊਟਰ ਸਾਇੰਸ

ਸਮੇਸਟਰ - I

ਸਮਾਂ : 2 ਘੰਟੇ 30 ਮਿਨਟ

ਲਿਖਤੀ : 30 ਅੰਕ

ਸੀ.ਸੀ.ਈ./ਇੰਟ, ਅਸੈਸ. : 10 ਅੰਕ

ਪ੍ਰਯੋਗੀ : 40 ਅੰਕ

ਕੁਲ ਅੰਕ : 80 ਅੰਕ

ਅਗਵਾਈ ਲੀਹਾਂ (ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ)

- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਤਿੰਨ ਭਾਗਾਂ (ਭਾਗ-ਓ, ਭਾਗ-ਅ, ਭਾਗ-ਬ) ਵਿੱਚ ਵੰਡਿਆ ਹੋਵੇਗਾ।
- ਭਾਗ-ਓ ਅਬਜੈਕਟਿਵ ਟਾਈਪ ਹੋਵੇਗਾ ਜਿਸ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ. 1 ਤੋਂ 8 ਤੱਕ 1-1 ਅੰਕ ਦੇ 8 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
- ਭਾਗ-ਅ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ. 9 ਤੋਂ 12 ਤੱਕ 3-3 ਅੰਕ ਦੇ 4 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
- ਭਾਗ-ਬ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ. 13 ਤੋਂ 14 ਤੱਕ 5-5 ਅੰਕ ਦੇ 2 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
- ਭਾਗ-ਓ ਅਤੇ ਭਾਗ-ਅ ਦੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਜ਼ਰੂਰੀ ਹੋਣਗੇ। ਭਾਗ-ਅ ਅਤੇ ਭਾਗ-ਬ ਵਿੱਚ ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਦੋ ਜਾਂ ਵੱਧ ਭਾਗ ਵੀ ਹੋ ਸਕਦੇ ਹਨ। ਭਾਗ-ਬ ਵਿੱਚ ਅੰਦਰੂਨੀ ਛੋਟ ਹੋਵੇਗੀ।
- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਸਮੇਸਟਰ-I ਲਈ ਨਿਰਧਾਰਤ ਪਾਠ ਕ੍ਰਮ ਦਾ ਪੂਰਕ ਹੋਵੇਗਾ।

ਪਾਠ ਕ੍ਰਮ

(ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ)

1. ਦਸਵੀਂ ਕਲਾਸ ਦੀ ਦੁਹਰਾਈ

ਸਾਫਟਵੇਅਰ ਸੰਕਲਪ

ਸਿਸਟਮ ਸਾਫਟਵੇਅਰ: ਐਪਰੇਟਿੰਗ ਸਿਸਟਮ, ਯੂਟਿਲਿਟੀ ਸਾਫਟਵੇਅਰ, ਐਪਲੀਕੇਸ਼ਨ ਸਾਫਟਵੇਅਰ

ਐਕਸੈਲ: ਡਾਟਾ ਟਾਈਪ ਫਾਰਮੂਲਾ ਅਤੇ ਫੰਕਸ਼ਨਜ਼, ਐਕਸਲ ਅਤੇ

ਫਾਈਨੈਂਸ਼ਿਅਲ ਡਾਟਾ

ਐਚ.ਟੀ.ਐਮ.ਐਲ ਦੀ ਦੁਹਰਾਈ (Review on HTML): ਵੈੱਬ ਪੇਜਿੰਗ, ਐਚ.ਟੀ.ਐਮ.ਐਲ (HTML) ਫਾਈਲ, ਮਾਇਕਰੋਸਾਫਟ ਅਸੈਸ: ਡਾਟਾ

ਸੋਧਨਾ, ਅਸੈਸ ਡਾਟਾਬੇਸ ਦੇ ਆਬਜੈਕਟਸ (ਟੇਬਲ, ਕੁਐਰੀਜ਼, ਫਾਰਮ, ਰਿਪੋਰਟ, ਪੇਜ)

ਪ੍ਰੋਗਰਾਮਿੰਗ ਕੰਨਸੈਪਟਸ ਦੀ ਦੁਹਰਾਈ (Review on programming concepts) : ਪ੍ਰੋਗਰਾਮ ਡਿਵੈਲਪਮੈਂਟ ਦੇ ਵੱਖ-ਵੱਖ

ਪੜਾਅ, ਪ੍ਰੋਗਰਾਮਿੰਗ ਭਾਸ਼ਾ ਦੇ ਐਲੀਮੈਂਟਸ

2. "ਸੀ" ਭਾਸ਼ਾ ਵਿੱਚ ਪ੍ਰੋਗਰਾਮਿੰਗ ਲਈ ਭੂਮਿਕਾ

ਭੂਮਿਕਾ

ਸੀ (C) ਭਾਸ਼ਾ ਦੇ ਵਿਸ਼ੇਸ਼ ਲੱਛਣ

ਸੀ (C) ਚਿੰਨ੍ਹ ਸੈੱਟ: ਐਸਕੇਪ ਚਿੰਨ੍ਹ, ਵਾਈਸ ਸਪੇਸ ਕਰੈਕਟਰ

ਸੀ (C) ਪ੍ਰੋਗਰਾਮ ਦਾ ਸਟਰਕਚਰ: ਹੈਡਰ ਫਾਈਲਜ਼, ਪ੍ਰੀ-ਪ੍ਰੋਸੈਸਰ ਸਟੇਟਮੈਂਟ/ਨਿਰਦੇਸ਼, ਗਲੋਬਲ ਡਿਕਲੇਰੇਸ਼ਨਸ,

ਸੀ (C) ਪ੍ਰੋਗਰਾਮ ਦਾ ਕੰਪਾਈਲ ਅਤੇ ਲਾਗੂ ਕਰਨ

ਐਡੀਟਰ ਦੀ ਵਰਤੋਂ

ਫੰਕਸ਼ਨ: ਬਿਲਟ ਇਨ ਫੰਕਸ਼ਨਸ, ਯੂਜ਼ਰ ਪਰਿਭਾਸ਼ਤ ਫੰਕਸ਼ਨਸ

ਫਾਰਮੈਟਡ ਆਈ/ਓ ਫੰਕਸ਼ਨ: ਪ੍ਰਿੰਟਐਫ ਫੰਕਸ਼ਨ (printf()), ਸਕੈਨਐਫ ਫੰਕਸ਼ਨ (scanf()) ਸੀ (C) ਪ੍ਰੋਗਰਾਮਿੰਗ ਨਾਲ ਸ਼ੁਰੂਆਤ ਕਰਨੀ: ਟਰਬੋ ਸੀ

ਨੂੰ ਸਥਾਪਿਤ ਕਰਨਾ, ਪ੍ਰੋਗਰਾਮ ਦੀ ਕੰਪਾਇਲਿੰਗ ਅਤੇ ਐਗਜ਼ੀਕਿਊਟਿੰਗ

3. ਕਾਂਸਟੈਂਟਸ, ਵੈਰੀਏਬਲਜ਼ ਅਤੇ ਡਾਟਾ ਟਾਈਪਸ

ਭੂਮਿਕਾ

ਕਾਂਸਟੈਂਟਸ/ਸ਼ਾਬਦਿਕ : ਸੀ (C) ਕਾਂਸਟੈਂਟਸ ਦੀਆਂ ਟਾਈਪਸ

ਸੀ (C) ਵੈਰੀਏਬਲਜ਼/ ਆਈਡੈਂਟੀਫਾਈਰ ਦੀਆਂ ਟਾਈਪਸ: ਡਿਲੀਮਿਟਰ, ਵੈਰੀਏਬਲਜ਼ ਦਾ ਡਿਕਲੇਰੇਸ਼ਨ/ਇਨਿਸ਼ਿਯਲਾਈਜ਼ੇਸ਼ਨ,

ਵੈਰੀਏਬਲ ਵਿੱਚ ਕਾਂਸਟੈਂਟ ਸਟੋਰ ਕਰਨਾ

ਡਾਟਾ ਟਾਈਪਸ : ਬਿਲਟ ਇਨ ਡਾਟਾ ਟਾਈਪਸ (ਇੰਨਟੀਜਰ, ਫਲੋਟਿੰਗ ਪੁਆਇੰਟ - ਡਾਟਾ ਟਾਈਪਜ਼, ਕਰੈਕਟਰ ਡਾਟਾ ਟਾਈਪ, ਡਬਲ, ਵੋਆਇਡ ਡਾਟਾ ਟਾਈਪ), ਮੇਨ ਫੰਕਸ਼ਨ ਹੈਡਰ, ਟੋਕਨਜ਼(ਆਈਡੈਂਟੀਫਾਇਰਜ਼, ਕੀ- ਵਰਡਜ਼, ਕਾਂਸਟੈਂਟ, ਓਪਰੇਟਰਸ) : ਕੀ-ਵਰਡਜ਼ ਅਤੇ ਆਈਡੈਂਟੀਫਾਇਰਜ਼, ਟਾਈਪ ਮੋਡੀਫਾਈਰ ਜਾਂ ਕੁਆਲੀਫਾਈਰ

4. ਓਪਰੇਟਰਸ ਅਤੇ ਐਕਸਪ੍ਰੈਸ਼ਨ

ਭੂਮਿਕਾ

ਓਪਰੇਟਰਸ ਅਤੇ ਐਕਸਪ੍ਰੈਸ਼ਨ : ਐਕਸਪ੍ਰੈਸ਼ਨ, ਬਾਇਨਰੀ ਓਪਰੇਟਰ, ਐਪਰੇਸ਼ਨਜ਼ ਅਤੇ ਹਿਰੈਚੀਕਲ ਆਰਡਰ (Operations & Hierarchical order)

ਰਿਲੇਸ਼ਨਲ ਅਤੇ ਲੌਜੀਕਲ ਓਪਰੇਟਰ : ਲੌਜੀਕਲ ਓਪਰੇਟਰ, ਅਸਾਈਨਮੈਂਟ ਓਪਰੇਟਰ, ਇਨਕਰੀਮੈਂਟ ਐਂਡ ਡਿਕਰੀਮੈਂਟ ਓਪਰੇਟਰ, ਟਰਨਰੀ ਓਪਰੇਟਰ, ਕੌਮਾ ਓਪਰੇਟਰ, ਸਾਈਜਆਫ() ਓਪਰੇਟਰ, ਬਿਟਵਾਈਜ ਓਪਰੇਟਰ

ਅਗਵਾਈ ਲੀਹਾਂ (ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ)

ਸਮਾਂ : 3 ਘੰਟੇ

ਅੰਕ : 40

ਪ੍ਰੀਖਿਆ ਲਈ ਅੰਕ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ :

- | | | |
|-------------|----------------------|----|
| ਸੈਕਸ਼ਨ - ਏ | ਵਾਇਵਾ - ਵੋਜ | 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 ਓਬਜੈਕਟਿਵ 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 ਰਿਕਾਰਡ 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। 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। 20 ਅੰਕ

ਪਾਠ ਕ੍ਰਮ (ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ)

1. ਦੁਹਰਾਈ

ਐਕਸੈਲ

ਐਚ. ਟੀ. ਐਮ. ਐਲ

ਮਾਇਕਰੋਸਾਫਟ ਅਸੈਸ : ਡਾਟਾ ਸੋਧਨਾ, ਅਸੈਸ ਡਾਟਾਬੇਸ ਦੇ ਆਬਜੈਕਟਸ

2. ਸੀ ਪ੍ਰੋਗਰਾਮ

ਸਟਰਕਚਰ : ਗਲੋਬਲ ਡਿਕਲੈਰੇਸ਼ਨ, ਸੀ ਪ੍ਰੋਗਰਾਮ ਦਾ ਕੰਪਾਈਲ ਅਤੇ ਲਾਗੂ ਕਰਨਾ

ਐਡੀਟਰ ਦੀ ਵਰਤੋਂ

ਫੰਕਸ਼ਨ : ਬਿਲਟ ਇਨ ਫੰਕਸ਼ਨ, ਯੂਜ਼ਰ ਪਰਿਭਾਸ਼ਤ ਫੰਕਸ਼ਨਜ਼, ਫਾਰਮੇਟਡ ਆਈ / ਓ ਫੰਕਸ਼ਨ

ਸੀ ਪ੍ਰੋਗਰਾਮਿੰਗ ਨਾਲ ਸ਼ੁਰੂਆਤ ਕਰਨੀ : ਟਰਬੋ ਸੀ ਨੂੰ ਸਥਾਪਿਤ ਕਰਨਾ, ਪ੍ਰੋਗਰਾਮ ਦਾ ਕੰਪਾਇਲਿੰਗ ਅਤੇ ਐਗਜ਼ੀਕਿਊਟਿੰਗ

ਇੰਸਟਾਲੇਸ਼ਨ

ਓਪਰੇਟਰ

ਸਮੇਸਟਰ - II

ਸਮਾਂ : 3 ਘੰਟੇ

ਲਿਖਤੀ : 40 ਅੰਕ

ਸੀ.ਸੀ.ਈ./ਇੰਟ, ਅਸੈਸ. : 20 ਅੰਕ

ਪ੍ਰਯੋਗੀ : 60 ਅੰਕ

ਕੁਲ ਅੰਕ : 120 ਅੰਕ

ਅਗਵਾਈ ਲੀਹਾਂ (ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ)

1. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਤਿੰਨ ਭਾਗਾਂ (ਭਾਗ-ੳ, ਭਾਗ-ਅ, ਭਾਗ-ੲ) ਵਿੱਚ ਵੰਡਿਆ ਹੋਵੇਗਾ ।
2. ਭਾਗ-ੳ ਅਬਜੈਕਟਿਵ ਟਾਇਪ ਹੋਵੇਗਾ ਜਿਸ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ. 1 ਤੋਂ 12 ਤੱਕ 1-1 ਅੰਕ ਦੇ 12 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ
3. ਭਾਗ-ਅ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ. 13 ਤੋਂ 18 ਤੱਕ 3-3 ਅੰਕ ਦੇ 6 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ ।
4. ਭਾਗ-ੲ ਵਿੱਚ ਪ੍ਰਸ਼ਨ ਨੰ. 19 ਤੋਂ 20 ਤੱਕ 5-5 ਅੰਕ ਦੇ 2 ਪ੍ਰਸ਼ਨ ਹੋਣਗੇ।
5. ਭਾਗ-ੳ ਅਤੇ ਭਾਗ-ਅ ਦੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਜ਼ਰੂਰੀ ਹੋਣਗੇ। ਭਾਗ-ਅ ਅਤੇ ਭਾਗ-ੲ ਵਿੱਚ ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਦੋ ਜਾਂ ਵੱਧ ਭਾਗ ਵੀ ਹੋ ਸਕਦੇ ਹਨ। ਭਾਗ-ੲ ਵਿੱਚ ਅੰਦਰੂਨੀ ਛੋਟ ਹੋਵੇਗੀ।
6. ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਸਮੇਸਟਰ-2 ਲਈ ਨਿਰਧਾਰਤ ਪਾਠ ਕ੍ਰਮ ਦਾ ਪੂਰਕ ਹੋਵੇਗਾ।

ਪਾਠ ਕ੍ਰਮ

(ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ)

1. ਕੰਟਰੋਲ ਫਲੋ (ਭਾਗ-I)

ਭੂਮਿਕਾ

ਡਿਸਿਜਨ ਮੇਕਿੰਗ ਸਟੇਟਮੈਂਟਸ : ਇਫ ਸਟੇਟਮੈਂਟ (if statement), ਇਫ ਐਲਸ (if-else)

ਸਵਿਚ ਸਟੇਟਮੈਂਟ

ਬ੍ਰੇਕ ਸਟੇਟਮੈਂਟ

ਨਿਰੰਤਰ ਸਟੇਟਮੈਂਟ

2. ਕੰਟਰੋਲ ਫਲੋ (ਭਾਗ-II)

ਭੂਮਿਕਾ

ਕੰਟਰੋਲ ਲੂਪ ਸਟਰਕਚਰ : ਵਾਈਲ ਸਟੇਟਮੈਂਟ (While statement) ,ਡੂ ਵਾਈਲ (do while) , ਫਾਰ ਸਟੇਟਮੈਂਟ, ਫਾਰ ਲੂਪ ਸਟੇਟਮੈਂਟ (For loop Statement)

3. ਐਰੇਸ (ਭਾਗ-I)

ਭੂਮਿਕਾ

ਐਰੇ ਦੀ ਡਿਕਲੇਅਰੇਸ਼ਨ ਅਤੇ ਇਨਿਸ਼ਿਅਲਾਈਜ਼ੇਸ਼ਨ : ਇਨਿਸ਼ਿਅਲਾਈਜ਼ਿੰਗ ਐਰੇਸ

ਕੁਝ ਵਿਸ਼ੇਸ਼ ਨਿਯਮ : ਐਰੇ ਵਿਚ ਡਾਟਾ ਪ੍ਰਵੇਸ਼ ਕਰਨਾ,

ਐਰੇ ਕਾਪੀ ਕਰਨੀ

ਐਰੇ ਦੇ ਮੁੱਲਾਂ ਦੀ ਪਹੁੰਚ-ਕਰਨੀ

ਐਰੇ ਐਲੀਮੈਂਟਸ ਦਾ ਪ੍ਰਬੰਧਨ

4. ਐਰੇਸ (ਭਾਗ-II)

ਭੂਮਿਕਾ

ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ : ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਦੀ ਡਿਕਲੇਰੇਸ਼ਨ, ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਦੀ ਬਣਤਰ, ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਦਾ ਇਨਿਸ਼ਿਅਲਾਈਜ਼ੇਸ਼ਨ, ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਐਲੀਮੈਂਟਸ ਦਾ ਇਨਿਸ਼ਿਅਲਾਈਜ਼ੇਸ਼ਨ, ਮੈਮਰੀ ਵਿਚ ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਐਲੀਮੈਂਟਸ

ਮਲਟੀ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇਸ- ਕੋਰ ਟਾਈਪ : ਮਲਟੀ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇਸ ਦੇ ਐਲੀਮੈਂਟਸ ਤੱਕ ਪਹੁੰਚ, ਕੋਰ ਟਾਈਪ ਮਲਟੀ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਦਾ ਇਨਿਸ਼ਿਅਲਾਈਜ਼ੇਸ਼ਨ, ਕੋਰ ਵਰਡ ਪ੍ਰੋਸੈਸਿੰਗ ਦੇ ਦੋ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ

ਇਕ-ਕੋਰ ਟਾਈਪ ਇਨਪੁੱਟ/ਆਊਟਪੁੱਟ

ਡੀਫਾਈਨ ਡਾਇਰੈਕਟਿਵ(# define directive)

5. ਡੈਸਕਟਾਪ ਪਬਲਿਸ਼ਿੰਗ

ਡੈਸਕਟਾਪ ਪਬਲਿਸ਼ਿੰਗ ਬਾਰੇ ਜਾਣਕਾਰੀ

ਡਾਕੂਮੈਂਟਸ ਨੂੰ ਪ੍ਰਿੰਟ ਕਰਨਾ

ਪ੍ਰਿੰਟਿੰਗ ਦੇ ਤਰੀਕੇ : ਆਫਸੈਟ ਪ੍ਰਿੰਟਿੰਗ, ਲੇਜਰ ਪ੍ਰਿੰਟਿੰਗ

ਫੋਂਟਸ

ਫਰੇਮ

ਪੇਜ ਲੇਆਊਟ

ਡੈਸਕਟਾਪ ਪਬਲਿਸ਼ਿੰਗ ਅਤੇ ਵਰਡਪ੍ਰੋਸੈਸਰ ਵਿਚ ਅੰਤਰ

ਡਾਕੂਮੈਂਟ ਪਲੈਨਿੰਗ

ਮੁੱਖ ਸੂਚਨਾ ਨੂੰ ਖਾਸ ਤੌਰ ਤੇ ਦਿਖਾਇਆ ਜਾਣਾ : ਸਟਾਇਲ , ਮਾਰਜਨ, ਫੁਟਰ, ਫੋਂਟ

ਨੋਟ : ਬੋਰਡ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ ਪਾਠ-ਪੁਸਤਕ 'ਕੰਪਿਊਟਰ ਸਾਇੰਸ-11' ਪਾਠ ਨੰਬਰ 10 'ਕੋਰਲ ਡਰਾਅ' ਪਾਠ ਕ੍ਰਮ ਦਾ ਹਿੱਸਾ ਨਹੀਂ ਹੈ। ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਇਸ ਪਾਠ ਵਿੱਚੋਂ ਕੋਈ ਪ੍ਰਸ਼ਨ ਨਹੀਂ ਪੁੱਛਿਆ ਜਾਵੇਗਾ।

ਅਗਵਾਈ ਲੀਨਾਂ (ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ)

ਸਮਾਂ : 3 ਘੰਟੇ

ਅੰਕ : 60

ਪ੍ਰੀਖਿਆ ਲਈ ਅੰਕ ਵੰਡ ਹੇਠ ਲਿਖੇ ਅਨੁਸਾਰ ਹੋਵੇਗੀ :

ਸੈਕਸ਼ਨ - ਏ	ਵਾਇਵਾ - ਵੇਸ	10
ਸੈਕਸ਼ਨ - ਬੀ	ਪ੍ਰੋਗਰਾਮ ਰਿਕਾਰਡ ਫਾਇਲ	10
ਸੈਕਸ਼ਨ - ਸੀ	ਛੋਟੇ ਪ੍ਰੋਗਰਾਮ	16
ਸੈਕਸ਼ਨ - ਡੀ	ਵੱਡੇ ਪ੍ਰੋਗਰਾਮ	24
1.	ਸੈਕਸ਼ਨ ਏ ਵਿੱਚ ਪ੍ਰੀਖਿਆਰਥੀ ਤੋਂ ਪਾਠ ਕ੍ਰਮ ਵਿੱਚੋਂ ਪੰਜ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੋ-ਦੋ ਅੰਕ ਦਾ ਹੋਵੇਗਾ। ਇਹ ਪ੍ਰਸ਼ਨ ਓਬਜੈਕਟਿਵ ਟਾਈਪ ਜਾਂ ਵਿਆਖਿਆ ਦੱਸਣੀ ਜਾਂ ਕੰਪਿਊਟਰ ਦੇ ਵੱਖ ਵੱਖ ਹਿੱਸਿਆਂ ਅਤੇ ਇਸ ਨਾਲ ਜੁੜੇ ਸਹਾਇਕਾਂ ਦੇ ਬਹੁਤ ਛੋਟੇ ਅਭਿਆਸ ਹੋਣਗੇ।	10
2.	ਸੈਕਸ਼ਨ ਬੀ ਵਿੱਚ ਪ੍ਰੀਖਿਆਰਥੀ ਦਾ ਸਲਾਨਾ ਰਿਕਾਰਡ ਚੈਕ ਕੀਤਾ ਜਾਵੇਗਾ।	10
3.	ਸੈਕਸ਼ਨ ਸੀ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ/ਪ੍ਰੋਗਰਾਮ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਪ੍ਰੀਖਿਆਰਥੀ ਨੂੰ ਦੋ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਕਰਨ ਦੀ ਖੁੱਲ੍ਹ ਹੋਵੇਗੀ। ਹਰ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਅੱਠ-ਅੱਠ ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ, ਹਰੇਕ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਲਈ ਅੰਦਰੂਨੀ ਅੰਕ ਵੰਡ ਪੇਪਰ ਸੈੱਟਰ ਕਰਕੇ ਦੇਵੇਗਾ।	16
4.	ਸੈਕਸ਼ਨ ਡੀ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ/ਪ੍ਰੋਗਰਾਮ ਸੈੱਟ ਕੀਤੇ ਜਾਣਗੇ ਜਿਨ੍ਹਾਂ ਵਿੱਚੋਂ ਪ੍ਰੀਖਿਆਰਥੀ ਨੂੰ ਦੋ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਕਰਨ ਦੀ ਖੁੱਲ੍ਹ ਹੋਵੇਗੀ। ਹਰ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਬਾਰਾਂ-ਬਾਰਾਂ ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ, ਹਰੇਕ ਪ੍ਰੋਗਰਾਮ/ਪ੍ਰਸ਼ਨ ਲਈ ਅੰਦਰੂਨੀ ਅੰਕ ਵੰਡ ਪੇਪਰ ਸੈੱਟਰ ਕਰਕੇ ਦੇਵੇਗਾ।	24

ਪਾਠ ਕ੍ਰਮ (ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ)

ਸਮੇਸਟਰ -II

1. ਕੰਟਰੋਲ ਫਲੋ ਭਾਗ-I

ਡਿਸਿਜ਼ਨ ਮੇਕਿੰਗ ਸਟੇਟਮੈਂਟ : ਇਫ ਸਟੇਟਮੈਂਟ, ਇਫ ਐਲਸ ਸਟੇਟਮੈਂਟ

ਸਵਿਚ ਸਟੇਟਮੈਂਟ

ਬ੍ਰੇਕ ਸਟੇਟਮੈਂਟ

ਨਿਰੰਤਰ ਸਟੇਟਮੈਂਟ

2. ਕੰਟਰੋਲ ਫਲੋ ਭਾਗ-II

ਕੰਟਰੋਲ ਲੂਪ ਸਟਰਕਚਰ : ਵਾਈਲ ਸਟੇਟਮੈਂਟ, ਡੂ ਵਾਈਲ, ਫੋਰ ਸਟੇਟਮੈਂਟ (loop)

3. ਐਰੇਸ ਭਾਗ-I

ਐਰੇ ਵਿੱਚ ਡਾਟਾ ਪ੍ਰਵੇਸ਼ ਕਰਨਾ

ਐਰੇ ਕਾਪੀ ਕਰਨੀ

ਐਰੇ ਦੇ ਮੁੱਲਾਂ ਦੀ ਪਹੁੰਚ ਕਰਨੀ

ਐਰੇ ਐਲੀਮੈਂਟਸ ਦਾ ਪ੍ਰਬੰਧਨ : ਐਲੀਮੈਂਟਸ ਦਾ ਜੋੜ, ਐਲੀਮੈਂਟਸ ਦਾ ਗੁਣਾਂਕ-ਮੁੱਲ, ਐਲੀਮੈਂਟਸ ਦਾ ਪ੍ਰੋਡਕਟ, ਐਲੀਮੈਂਟਸ ਦਾ ਔਸਤਨ, ਓਚਤਮ ਅਤੇ ਨਿਉਨਤਮ ਅੰਕ ਲੱਭਣਾ

4. ਐਰੇਸ ਭਾਗ-II

ਦੋ-ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ ਦੀ ਬਣਤਰ ਅਤੇ ਇਨੀਸ਼ਿਯਲਾਈਜ਼ੇਸ਼ਨ

ਮਲਟੀ ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇਸ : ਐਲੀਮੈਂਟਸ, ਇਨੀਸ਼ਿਯਲਾਈਜ਼ੇਸ਼ਨ, ਦੋ-ਡਾਇਮੈਨਸ਼ਨਲ ਐਰੇ, ਇਕ-ਕੋਰ ਟਾਈਪ ਇਨਪੁੱਟ-ਆਊਟਪੁੱਟ

5. ਡੈਸਕਟਾਪ ਪਬਲਿਸ਼ਿੰਗ

ਡਾਕੂਮੈਂਟਸ ਨੂੰ ਪ੍ਰਿੰਟ ਕਰਨਾ

ਪ੍ਰਿੰਟਿੰਗ ਦੇ ਤਰੀਕੇ : ਆਫਸੈਟ ਪ੍ਰਿੰਟਿੰਗ , ਫੁਟਰ ਪ੍ਰਿੰਟਿੰਗ

ਫੋਂਟਸ

ਫਰੇਮ

ਪੇਜ ਲੇਆਊਟ

ਡਾਕੂਮੈਂਟ ਪਲੈਨਿੰਗ

ਮੁੱਖ ਸੂਚਨਾ ਨੂੰ ਖਾਸ ਤੌਰ ਤੇ ਦਿਖਾਇਆ ਜਾਣਾ : ਸਟਾਇਲ, ਮਾਰਜਨ, ਫੁਟਰ, ਫੋਂਟ

**D. STRUCTURE OF QUESTION PAPER OF ELECTIVE SUBJECTS
(Theory)**

For question paper carrying 30 marks (Theory) each (except those specified at *)

NOTE: The length of the answer to a question for all 12th class vocational stream subjects depends upon the nature of the question. The suggested limit is only a guideline for the students to answer a question in limited space in limited time. This practice will help him in competitive tests.

***SUBJECTS HAVING 45 MARKS THEORY FOR SEMESTER – I AND 65 MARKS THEORY FOR SEMESTER-II ARE:-**

GROUP	TRADE	SUBJECTS
Business & Commerce and	Accountancy and Auditing	a. Principles of Management Economics
	-do-	b. Book Keeping and Accountancy
Engineering & Technology Mathematics & Commercial	Computer Techniques	Advanced Computer Applications
Humanities & Others of	Commercial Art	Technical Theory Commercial Art

Semester-I

Time: 2 hrs

Theory

Marks: 30

Internal Assessment: 10

Total Marks: 40

Structure of Question Paper

The question paper will comprise of two parts (Part-I and Part-II). The questions will be evenly distributed from the prescribed syllabus.

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

Part-II will consist of seven questions carrying 6 marks each. Candidate will attempt any four questions out of these. A question may have two or more parts. The answer of each question should not be more than two pages of the answer sheet.

Semester-II

Time: 2 hrs

Theory

Marks: 30

Internal Assessment: 15

Total Marks: 45

The structure of question paper will remain same as that of Semester-I .

For question paper carrying 45 marks (Theory) each.**Semester-I**

Theory

Time: 3 hrs

Marks: 45
Internal Assessment: 20
Total Marks: 65**Structure of Question Paper**

The question paper will comprise of two parts (Part-I and Part-II). The questions will be evenly distributed from the prescribed syllabus.

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

Part-II will consist of nine questions carrying 6 marks each. Candidate will attempt any six questions out of these. A question may have two or more parts. The answer of each question should not be more than two pages of the answer sheet.

For question paper carrying 65 marks (theory) each.**Semester-II**

Theory

Time: 3 hrs

Marks: 65
Internal Assessment: 30
Total Marks: 95**Structure of Question Paper**

The question paper will comprise of two parts (Part-I and Part-II). 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 are compulsory to attempt. The answer of each question should not exceed more than one sentence.

Part-II will consist of fifteen questions carrying 6 marks each. Candidate will attempt any ten questions out of these. A question may have two or more parts. The answer of each question should not be more than two pages of the answer sheet.

**E. STRUCTURE OF QUESTION PAPER OF ELECTIVE SUBJECTS
(Practical)****For Question Paper carrying 25 marks (practical) each (except those specified at **)******SUBJECTS HAVING 65 MARKS PRACTICAL FOR SEMESTER - I AND 95 MARKS FOR SEMESTER-II ARE:-**

GROUP	TRADE	SUBJECTS
Engineering & Technology Drawing	1. Engg. Drawing and Drafting	a. Engineering
Drawing	2. Mechanical Servicing (Genl.)	b. Engineering
Humanities & Others & Drawing	3. Commercial Art	a. Commercial Art
out		b. Design and Lay-

Semester-I**Time: 3 hrs****Maximum Marks: 25**

Distribution of marks will be as follows:

(i) Practical note book/sessional work/visits/project work.

5 Marks

(ii) Viva Voice

5 Marks

(iii) Actual Performance

15 Marks

Major Practical:

In all, three practicals will be asked from the prescribed syllabus. Candidate will be asked to choose any two out of these. The Practical examiner will ask the candidate to perform any one practical out of the two chosen by him. 10 Marks

Minor Practical:

In all, three practicals will be asked from the prescribed syllabus. Candidate will be asked to choose any two out of these. The Practical examiner will ask the candidate to perform any one practical out of the two chosen by him. 5 Marks

**For question paper carrying 50 marks (practical) each
(except those specified at **).
Semester-II**

Time: 3 hrs**Maximum Marks: 50**

Distribution of marks will be as follows:

- | | |
|---|----------|
| (i) Practical note book/sessional work/visits/project work. | 10 Marks |
| (ii) Viva Voice | 5 Marks |
| (iii) Actual Performance | 35 Marks |

Major Practical:

In all, three practicals will be asked from the prescribed syllabus. Candidate will be asked to choose any two out of these. The Practical examiner will ask the candidate to perform any one practical out of the two chosen by him. 20 Marks

Minor Practical:

In all, three practicals will be asked from the prescribed syllabus. Candidate will be asked to choose any two out of these. The Practical examiner will ask the candidate to perform any one practical out of the two chosen by him. 15 Marks

Semester-I

Time: 3 hrs or according to requirement of practical	Practical	Marks: 45 Internal Assessment: 20 Total Marks: 65
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The structure of Question Paper carrying 65 marks (practical) are given below:

**ENGINEERING AND TECHNOLOGY GROUP
(a) ENGINEERING DRAWING AND DRAFTING**

Paper-I**ENGINEERING DRAWING**

Practical

Time : 3 hrs Marks: 65**Structure of Question Paper**

The question paper will consist of five parts.

- | | |
|---|----------|
| 1. Drawing instruments and their uses. | 5 marks |
| 2. Line lettering & dimensions. | 15 marks |
| 3. Projection of planes & solids. | 20 marks |
| 4. Sessional work: Students will show at least 15 articles (5 from each topic) which have been designed by him during the whole year. | 15 marks |
| 5. Project work. | 10 marks |

(b) MECHANICAL SERVICING (GENL.)**Paper-III****ENGINEERING DRAWING**

Practical

Time : 3 hrs Marks: 65**Structure of Question Paper**

The question paper will consist of four parts.

- 1. Drawing instruments & their uses.**

- Line lettering and dimensions, Free hand isometric view from given diagram of screw threads. 10 marks
2. **Projections of planes and solids** 20 marks
3. **Development of surface and interpenetration of solids.**

Or

Assembly Drawing 25 marks

4. **Sessional work** : Students will show at least 15 articles which have been designed by him during the whole year. 10 marks

**HUMANITIES AND OTHERS GROUP
COMMERCIAL ART**

Paper-I

COMMERCIAL ART AND DRAWING

Practical

Time : 5 hrs

Marks: 65

Structure of Question Paper

The question paper will consist of 2 parts.

No.1 (40 marks)

This part will be based upon unit I of the syllabus. Two question will be asked and the student will do any one of these . The distribution of marks will be as on next page:

Composition 15 marks

Expression 15 marks

Finishing 10 marks

No.2 (25 marks)

This part relates to sessional work . Students will show at least 10 articles relating to drawing any lay-out which have been designed by him during the whole academic year.

**For Question Paper carrying 95 marks (practical) each
Semester-II**

Time: According to the requirement of practical.

Maximum Marks: 95

The structure of question paper having 95 marks practical precedes the syllabus of that particular subjects.

Paper-II DESIGN AND LAY-OUT

Time : 5 hrs

Practical

Marks: 65

Structure of Question Paper

The question paper will consist of 2 parts.

No.1 (40 marks)

This part will be based upon unit I of the syllabus. Two question will be asked and the student will do any one of these . The distribution of marks will be as follows:

Composition 15 marks

Expression 15 marks

Finishing 10 marks

No.2 (25 marks)

This part relates to sessional work . Students will show at least 10 articles relating to drawing any lay-out which have been designed by him during the whole academic year.

**For Question Paper carrying 95 marks (practical) each
Semester-II**

Time: According to the requirement of practical.

Maximum Marks: 95

The structure of question paper having 95 marks practical precedes the syllabus of that particular subjects.

F. GENERAL INSTRUCTIONS TO THE PAPER SETTERS (THEORY)

1. The paper should be strictly from the prescribed syllabus or according to guidelines given under the structure of question paper.
2. The language should be simple and to the mental level of the students.
3. The standardized form of the technical terminology should be used.
4. The questions in the paper should be evenly distributed throughout the syllabus.
5. There will not be any objective type question like Yes or No, tick or cross, fill in the blanks, multiple choice etc.
6. Due weightage should be given to numerical problems wherever required.
7. Marks for every part/sub-part should be shown on the question paper itself.

PRACTICAL

1. The question paper will be set on the spot by the practical examiner himself.
2. The practical examiner will set the question paper on the spot based upon the instructions & prescribed syllabus. The examiner must send one copy of the question paper for Board's record. The second copy of the question paper must be kept by the examiner.
3. A group of students should be examined in given time.
4. Separate question paper should be set for each group.

G. ON-THE-JOB TRAINING

Time : 3 weeks

M. Marks : 60

INTRODUCTION :

On-the-job training is an essential component of effective Vocational Education and Training. The Heads of Vocational Schools have to play a vital role in this regard.

IDENTIFICATION OF TRAINING CENTRE :

The Head of the institution will identify the Training Centres in consultation with liaison agencies and local community. Any reputed Industrial Organisation / Workshop/Office/Shop situated in the neighbourhood of the school can be the training centre.

GROUPING OF STUDENTS :

After the identification of Training Centres the Head of school will group the students under the guidance of a group incharge, the concerned vocational master. There should not be more than 10 students in a group.

DURATION :

On-the-job training will be for three weeks in all. **It will be conducted for three weeks after the completion of the Syllabus at the end of 2nd Semester for 120 marks(40 marks for each of the trade related subjects).** It can be conducted at more than one centre depending upon the facilities available at the training center/s. The schedule may be framed by the Head of the school in consultation with the competent authority of the training centre/s.

EVALUATION :

The competent authority at the training centre will evaluate the conduct, work, aptitude, gained experience, efficiency etc. of the student and will issue the training certificate on the Performance Sheet.

PREPARATION OF AWARD LIST :

On the basis of the training, certificate marks will be allotted to the student by the group incharge. These marks will be listed in the Award List against the Roll No. of the student as

issued by the Board. The Award List duly countersigned by the Head of the institution will be sent to the Board.

Training certificates of the students should not be sent to the Board. These may issued to the students after the declaration of their result.

CERTIFICATION :

The marks obtained by the student will be reflected in the Detail marks card issued by the Board. On-the-job training will be counted as a subject and it will be compulsory to pass this subject to pass the examination as a whole.

H. ELECTIVE SUBJECTS

I. AGRICULTURE GROUP

(i) Horticulture

PAPER-I

Time:2 hrs

FUNDAMENTALS OF HORTICULTURE

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

1. Definition, importance and scope of horticulture.
2. Branches of horticulture, classification, distribution of horticulture crops and horticulture zones of India.
3. Climatic factors, plant growth and development including effects of adverse climatic conditions and their management.
4. Soil as a media of plant growth including effects of soil conditions.
5. Propagation-types and methods of propagation, propagation structures, tools and equipment, media and containers.
6. Propagation through seed and factors affecting viability of seeds.
7. Principles of seed production.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

8. Nursery raising, preparation of bed, seed sowing, protection, hardening, lifting and packing of seedlings.
9. Asexual propagation and its importance, propagation by cutting, layering, grafting, budding and their types.
10. Propagation of plants by specialized structures- bulbs, corms, tubers, rhizomes, runners, slips stolans, suckers and their types.
11. Handling of nursery plants, display, marketing and economics of nursery business.
12. Selection of site, land development including fencing and windbreaks and planting.
13. Nutrition of horticultural crops.
14. Irrigation in horticultural crops.
15. Training and pruning of horticultural crops.
16. Plant protection in horticultural crops.
17. Methods of communication and transfer of technology.

PAPER-I

Time : 3 hrs.

FUNDAMENTALS OF HORTICULTURE

**PRACTICAL
SEMESTER-I**

M. Marks : 25

1. Survey and selection of site for horticultural crops.
2. Study of garden tools and implements.
3. Collection and analysis of soil and water samples.
4. Study of material and plants required for fencing.
5. Visit to nursery and selection of healthy, true to the type planting material.
6. Study of different types of fertilizers, manures and bio fertilizers.
7. Use of different kinds of mulches in horticultural crops.

Time : 3 hrs.

**PRACTICAL
SEMESTER-II**

M. Marks : 50

1. Preparation of nursery beds.
2. Practicing the lifting and transplanting of plants.
3. Study of different types of fertilizers, manures and bio fertilizers.
4. Study of symptoms of deficiency of nutrients in horticultural crops.
5. Methods of irrigation including drip and sprinkler in an orchard.
6. Use of different kinds of mulches in horticultural crops.
7. Training and pruning in horticultural crops.
8. Study of seeds and seed germination including pre-sowing treatments.
9. Study of specialized methods in propagation like, runners, suckers, offshoots, tubes, bulbs and their planting.
10. Propagation through cuttings and layering, leaf shoot, root cuttings, gootee, ground layering using different plant species.
11. Practice of different methods of grafting and budding in roses.

PAPER-II

FRUIT PRODUCTION

Time:2 hrs

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

1. Importance and present status and future scope of fruit industry in India. Nutritive value of fruits. Fruit production as an economic proposition.
2. Classification of fruit crops based on climatic requirements and fruit growing zones in Punjab.
3. Selection of site for fruit crops.
4. Layout and planting systems for fruit crops.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

5. Commercial cultivation of major fruit crops with special reference to their origin, climate, soil varieties, propagation, planting, training, pruning nutrition, interculture, irrigation, weed control, plant protection, harvesting, grading, storage and marketing of;

Mango, papaya, sapota, citrus fruits, guava, grape, litchi, ber, pomegranate, amla, pear, peach phalsa, Mamun

PAPER-II
Time : 3 hrs.

FRUIT PRODUCTION
PRACTICAL
Semester-I

M. Marks : 25

1. Visit to an orchard, study of features and identification of fruits crops.
2. Lay out of orchards by different systems of planting.
3. Digging of pits, refilling the pits for planting of important fruit crops.
4. Raising of seedlings of fruit crops.
5. Planting of fruit trees.

Time : 3 hrs.

PRACTICAL
SEMESTER-II

M. Marks : 50

6. Methods of training and pruning of fruit crops.
7. Application of manures and fertilizers for fruit crops.
8. Identification and control of insect pest-mango/guava/citrus/pear/peach and ber.
9. Identification and control of diseases in important fruit crops.
10. Study of special problems like malformation in mango/citrus decline.
11. Grading and packaging of fruits.
12. Organoleptic evaluation of cultivars of fruit crops.

PAPER-III

VEGETABLE PRODUCTION

Time:2 hrs

Theory
Syllabus
Semester-I

Marks: 30
Internal Assessment: 10
Total Marks: 40

1. Importance of vegetables and their role in human diet.
2. Present status and future scope of vegetable production in Punjab.
3. Classification of vegetables based upon climate zone parts used in food, cultural practices.
4. Types and system of vegetable growing including protected cultivation and cropping sequence. Type of vegetable garden, kitchen garden and market gardens.
5. Nursery raising for vegetables crops.

Time:2 hrs

Theory
Syllabus
Semester-II

Marks: 30
Internal Assessment: 15
Total Marks: 45

6. Commercial cultivation of the following in respect to climate, soil, varieties, planting method, irrigation, weed control, plant protection, harvesting and grading: Tomato, brinjal, chilli, okra, watermelon, muskmelon, cucumber, gourds, potato, onion, garlic, pea, cauliflower, cabbage, radish, carrot, spinach, lettuce vegetables of local importance.
7. Seed production in important vegetable crops like tomato, cauliflower, chilli, peas, onion, radish, watermelon and potato.

PAPER-III

VEGETABLE PRODUCTION

Time : 3 hrs.

PRACTICAL
SEMESTER-I

M. Marks : 25

1. Visit to vegetable farms and identification of vegetable crops.
2. Identification of various vegetable seeds.
3. Lay out and soil sterilization for vegetable nurseries.

4. Use of manure and fertilizers for important vegetable crops.
5. Interculture operations like hoeing, earthing and staking in vegetables.

Time : 3 hrs.

**PRACTICAL
SEMESTER-II**

M. Marks : 50

1. Hardening of nursery seedlings.
2. Study of nutrient deficiency symptoms in important vegetable crops.
3. Weed control in vegetable crops.
4. Identification of important diseases of vegetable and their control.
5. Visit to a vegetable seed production farm and seed processing unit.
6. Grading and packaging of vegetable crops.

(ii) AGRI BUSINESS

PAPER-I

ELEMENTS OF AGRICULTURE

Time:2 hrs

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

1. Definition of agriculture, its scope and importance, common agricultural, horticultural crops, factors affecting crop production.
2. Soil and water in relation to plant growth.
3. Types of soils, soil fertility, saline and alkaline soils.
4. Critical stages of crops for irrigation, methods of irrigation, water conveyance.
5. Characteristic features of rained and dryland agriculture.
6. Definition of manures and fertilizer, role in crop production.
7. Principles and practices of integrated nutrient management (INM), use of bio-fertilizers.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

8. Crop production practices including soil and water requirement of crops selection of crops according to seasons, field and seed bed preparation, seed treatment, sowing, planting and intercultivation practices, weeds and weed management/control.
9. Seed its development and multiplication.
10. Importance of pest and diseases management. Common diseases and pests of important crops. Common insecticides, fungicides, acaricides, rodenticide, nematicides and antibiotics and their uses.
11. Integrated pest and disease management.
12. Familiarization, handling, calibration and use of common farm machinery and implements and safety precautions.
13. Methods of drying-open drying, solar drying, natural drying and mechanical drying.
14. Traditional and modern storage structures. Storage conditions for different agricultural produce and control of stored grain pest.
15. Processing of produce-shelling cleaning, grading, mixing and packaging methods.
16. Role of livestock's and poultry in economy.

PAPER-I**ELEMENTS OF AGRICULTURE****Time : 3 hrs.****PRACTICAL
Semester-I****M. Marks : 25**

- 1 Visit to an observatory to familiarize with weather recording instruments.
- 2 Study of growth characters of important crops.
- 3 Study of deficiency symptoms of essential plant nutrients.
- 7 Seed treatment with fungicides and bacterial inoculant.
- 8 Preparation of compost.
- 9 Preparation of farm yard manure.
- 10 Identification of inorganic fertilizers.
- 11 Top dressing of chemical fertilizers.
- 12 Foliar application of fertilizers.

Time : 3 hrs.**PRACTICAL
SEMESTER-II****M. Marks : 50**

- 13 Preparation of ideal seed bed for sowing.
- 4 Study of soil types.
- 5 Site visit to know about the use of sprinkler and drip irrigation systems.
- 6 Determination of irrigation requirement of crops and efficiency of irrigation.
- 7 Site visit to watershed development areas.
14. termination of seed germination.
15. Sowing of seeds.
16. Raising of seeding/plant materials.
18. Identification of insects for common crops.
19. Collection and preservation of insects.
21. Identification, collection and preservation of plant specimens infested by common insectpests and diseases.
20. Preparation of pesticide and fungicide solution of required concentrations and their application.
24. Identification of stored grain pests and their prevention.
22. Study of different types of farms implements and their uses.
23. Calibration of various farm implements/tools.
25. Storage of seeds.
26. Study of different packaging equipment.

PAPER-II**INTRODUCTION TO BUSINESS MANAGEMENT
AND COMPUTER APPLICATIONS****Time:2 hrs****Theory
Syllabus
Semester-I****Marks: 30
Internal Assessment: 10
Total Marks: 40****(A) BUSINESS MANAGEMENT**

1. Business - Definition, characteristics, objectives, essentials of a successful business, various forms of business organization (meaning only), classification of business activities-Industry, Commerce, Trade - Aids to Trade, social responsibility of a business.

2. Management - Definition, scope, nature, levels of management and managerial skills.
3. Principles of Management.

4. Functions of Management

- Planning - Meaning, types of plans, steps in planning, decision making – meaning, types of decisions, process/steps in decision - making.
- Organisation - Line and staff of organization - meaning.
- Staffing - Manpower planning - meaning, objectives & importance, Recruitment and selection - meaning, Training and development - meaning and difference, need and importance.
- Leading - Meaning, Leadership styles.
- Motivation - Meaning, need and importance.
- Communication – Meaning, types, process and barriers to effective communication.
- Controlling – Meaning, controlling techniques and advantages.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

(B) COMPUTER APPLICATIONS

1. Computer Fundamentals

- What is a computer ? Block diagram of a Computer, Characteristics. Types of computers.
- Data representation within computer - Bits, Bytes, EBCDIC, BCD, ASCII, number system.
- Basic structure of computer - Input, Process, Output.
- Memory - RAM, ROM, EPROM, DRAM, CACHE, CDROM.
- Input Devices, Output Devices, Data Storage Devices.
- Computer Languages.
- Operating System- What is an operating system and Types of Operating System.

2. MS-DOS- Internal and External Commands

- **MS-WINDOWS**-Introduction to Windows, Advantages of Windows, Control panel, Accessories, Overview.

3. MS-Office

- **MS-WORD**- Starting MS-Word, Creating a Document, Operating a Document, Saving a Document, Editing Text, Formatting Text, Viewing Documents, Formatting Documents, Line spacing Paragraph spacing, Setting Tabs, Indenting Text, Aligning Text, Adding Headers and Footers. Numbering Pages. Inserting a Table, Proofing a Document. Spell-check utility, Printing a Document, Mail Merge, Use of Internet & sending of E-mails.

PAPER-II

**INTRODUCTION TO BUSINESS MANAGEMENT
AND COMPUTER APPLICATIONS**

Time:3 hrs

**Practical
Syllabus
Semester-I**

Marks: 25

BUSINESS MANAGEMENT

- Discussion with Agri-business Managers about their management - one visit
- Discussion with public administrator regarding the functioning of agri-business managers - one visit
- Interviews of agri-business entrepreneurs relating to their social responsibilities. - one visit
- Visit to two agri-business firms to learn about the planning process.
- Interviews of agri-business managers to obtain information on decision-making process. - one visit
- Selection of agri-business organization(s) for acquainting with selection process, training, development system and appraisal policies of personnel in the organization. - three visit
- Interviews of two agri-business entrepreneurs to find out how they motivate their employees. - one visit
- Visit to two agril. farms and interview the farmers about the communication problems they face in procuring agriculture inputs and selling agricultural products/commodities. - two visit
- Visit to two agri-business organizations to study management techniques followed by them. - two visit
- Selection of agri-business organizations to study how computers are used in the business and submit a report about how it differs from using computers in general business. - two visit

Time:3 hrs

**Practical
Syllabus
Semester-II**

Marks: 50**COMPUTER APPLICATIONS**

- Computer Fundamental - Checking the connectivity, peripherals of computer, booting (startup) the computer system.
- MS-DOS - Execution of internal DOS commands, execution of external DOS commands, making directory, subdirectory using DOS commands, creating, copying, deleting, renaming files and directories using DOS commands, formatting floppy disks, backup commands, making tree structure.
- Windows operation - Using mouse, study of different menus available in windows, creating, copying, deleting and renaming operations through windows.
- MS-Word - Loading a Software, creating and opening a document moving, copying, deleting, making block, undeleting a text and fonts management, printing, spell check, mail merge, export and import utilities.

Paper-III**BOOK KEEPING & FARM PLANNING****Time:2 hrs**

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

1. Introduction:

Meaning, nature and scope of accounting. Basic concepts and conventions of accounting principle. Double entry system. Advantages of book keeping and accounting, limitations of accounting.

2. Accounting Records :

Preparation of journal, Ledger, Cash book, types of cash books, Single column cash book; Double column cash book, Triple column cash book, Bank cash book, petty cash book; Practical problems.

3. Subsidiary Books :

Needs and use of subsidiary journal and sub-journals. Purchase book, Trade discount, Sales book, Purchase Returns book, Debit Note, Sales return book, Credit Note, Practical Problems.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

4. Final Accounts :

Procedure for preparing Trial balance, final accounts, trading account, Profit & loss account Balance sheet; Practical Problems.

5. Methods of Valuation : Depreciation, methods of computing depreciation.**6. Farm Planning :** Budgeting, techniques of farm planning, farm budgeting, steps in farm planning and budgeting, farm plans.**BOOK KEEPING & FARM PLANNING****Time : 3 hrs.**

**PRACTICAL
Semester-I**

M. Marks : 25

- 1 Survey of Book-keeping practices followed in Agri-business.
- 2 Preparation of Journal book.
- 3 Posting in Ledger.
- 4 Record of entries in Cash book.
- 5 Preparation of Petty cash book.
- 6 Preparation of Purchase book.
- 7 Preparation of Sales book.
- 8 Preparation of Purchase return book.
- 9 Preparation of Sales return book.

Time : 3 hrs.

**PRACTICAL
SEMESTER-II**

M. Marks : 50

- 10 Preparation of Trial Balance.
- 11 Computation of Gross profit/Loss.
- 12 Computation of Net Profit/Loss.
- 13 Preparation of Balance Sheet.
- 14 Computation of Depreciation.
- 15 Preparation of Farm planning.
- 16 Preparation of budget.

**(iii) REPAIR AND MAINTENANCE OF
POWER DRIVEN FARM MACHINERY**

PAPER-I**BASIC WORKSHOP PRATICES****Time:2 hrs**

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

General

- Importance of safety precautions in a workshop.
- Introduction to SI units fundamental and derived units.
- Common workshop hand tools, measuring tools and their application. Spanners, socket set, Allen head key wrenches, pliers, pipe and chain wrenches, punches and screw drivers. Linear measurement tools, angular measurement tools and gauges.
- Properties and uses of common engineering materials such as cast iron, mild steel, high carbon steel, alloy steel, stainless steel, copper, brass, tin, gunmetal, bronze, white metal, aluminium, wood, plastic and rubber.
- Measurements of Electrical parameters e.g. current, voltage, resistance, Power and Power factor.
- Plumbing : Functions and specifications of common plumbing tools and accessories (pipe dies, pipe wrenches etc.).
- Corrosion and its remedies.

Fitting and Drilling

- Functions and specifications of common handtools such as vices, hammers, files, chisel, reamers, taps and die sets and hand hacksaw.
- Drilling machines - parts and functions. Types of drill bits and applications.

Smithy and Sheet Metal

- Functions and specifications of smithy tools and accessories - blowers, furnace, anvils, swages plates, chisels, swage hammers, tongs, fuller's set, flattener, punches, tacks, pokers, shovels and press scales.
- Functions and specifications of common sheet metal tools and accessories - staker, hammers (wooden), snips, punches, grooves and chisels.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

Welding

- Arc and Oxy-acetylene welding
- Functions and specifications of Arc welding equipment and accessories - welding transformer, electrodes, electrode holder, cables, cable connectors, cable lug, chipping hammer, earthing clamps, wire brush, helmet, screen safety goggles, hand gloves and apron.
- Methods of arc welding, preparation for welding, proper selection of electrodes adjustment/setting of current; welding defects; precautions in welding.

Turning

- Lathe: parts and functions of head-stock, bed, chuck, tail-stock, lead screw, tool post, apron, dead centre, etc.
- Applications of pointed edge, straight edge, sharpened edge, facing, rough, left hand, right hand round nose and knurling tools.
- Different operations performed on a lathe - facing, plain turning, step turning, taper turning, knurling, threading, boring, etc.

Grinding

- Double ended power grinder : parts and functions.

- Composition of grinding wheel material and grinding wheels specifications.

Engineering Drawing

- Recognition of objects from given pictorial view. (Blue Print Reading of Simple assemblies)

PAPER-I

BASIC WORKSHOP PRACTICES

Time : 3 hrs.

**PRACTICAL
Semester-I**

M. Marks : 25

Materials

- Identification of common engineering materials with regard to type, size and specifications- cost iron, mild steel, high carbon steel, alloy steel, stainless steel, copper, brass, tin, gunmetal, bronze, white metal, aluminium, etc.
- Simple demonstration of physical properties of materials malleability, ductility, brittleness, hardness, etc.

Fitting

- Hack sawing of solid and hollow material (pipes), straight and cross filling.
- Preparing jobs involving filling, chipping, drilling and tapping/threading.
- Preparation of a job by fitting a square piece.

Smithy and Sheet Metal

- Preparing jobs involving heating, drawing, upsetting and bending.
- Preparing useful articles involving making, cutting, bending, riveting and soldering. (Ex. Preparing funnel).

Time : 3 hrs.

**PRACTICAL
SEMESTER-II**

M. Marks : 50

Plumbing

- Preparing jobs involving cutting, threading, bending and joining with simple pipe fittings.
- Attending actual jobs of plumbing in institutional areas.

Welding, Arc and OXY acetetyne

- Preparing jobs having butt joint, arc and gas.
- Preparing jobs having lap joint, arc and gas.
- Preparing jobs having T-joining, arc.
- Preparing jobs having corner joint, arc.
- Preparing useful jobs such as tables, stools and racks.

Turning

- Holding a job, its centring and facing; preparing a job involving simple turning, step turning, taper turning threading and knurling.
- Grinding of lathes tools.

Engineering Drawing

- Reading of simple blue print.
- To read given drawing of simple object.

Part-II**IRRIGATION, HARVESTING & TUBEWELL TECHNOLOGY****Time:2 hrs****Theory
Syllabus
Semester-I****Marks: 30
Internal Assessment: 10
Total Marks: 40****Irrigation and Tubewells :**

- Methods of irrigation and laying of irrigation channels and pipes in relation to types of soil and topography of the field.
- Type of Pumps, principles of operation, constructional details and application of centrifugal pumps & submersible pumps.
- Estimation of heads, discharge and power requirement of a pump-set.
- Fundamentals of electricity, units of measurement and different meters.

Time:2 hrs**Theory
Syllabus
Semester-II****Marks: 30
Internal Assessment: 15
Total Marks: 45**

- Types of diesel engines and electric motors for pumping sets.
Safety precautions while handling electrical appliances including motors. Trouble shooting & maintenance of diesel engines.
Types of tubewells, selection of sites, drilling methods, installation of pumping sets.
Rain water irrigation

Harvesting :

- Functions and Materials of construction of harvesting devices-sickle, reaper, combine, potato & groundnut digger.

Threshing :

- Functions & materials of construction of wheat thresher, different types of threshing cylinders and their adjustments.
- Safe use of threshers & storage.

IRRIGATION, HARVESTING & TUBEWELL TECHNOLOGY**Time : 3 hrs.****PRACTICAL
Semester-I****M. Marks : 25**

- Demonstration of different methods of irrigation.
- Identification of different types of pumps and their parts.
- Dismantling & assembling of centrifugal pump.
- Installation of pump, prime mover, fitting of pipes, valves, pulleys and checking for correct alignment; priming, gland packing, operation and trouble shooting of centrifugal pump sets, periodical servicing.
- Dismantling of submersible pump, materials of construction of different components and maintenance.

Time : 3 hrs.**PRACTICAL
SEMESTER-II****M. Marks : 50**

- Practice in the use of voltmeter, ammeter and megger.

- Introduction to different types of tubewells.
- Diesel engine, operations, adjustment and overhauling.
- Harvesting(1) Demonstration and working of combine Harvester
 - (2) Use at Reaper
 - (3) Working of potato digger (material of construction)
 - (4) Working of groundnut digger (material of construction)
- Threshing (1) Demonstration of working of wheat thresher.

Paper-III**CROP PRODUCTION MACHINERY****Time:2 hrs**

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

Tillage

- Functions, types and implements for Primary and Secondary tillage.

Primary Tillage

- Mouldboard plough : Types-one way, two way; parts-share, mould board, land side, frog etc. material of construction, accessories and their functions, jointer coulter, furrow wheel; adjustments of plough-horizontal suction and vertical suction; setting of coulter and jointer.
- Disc plough : Types, parts and function-disc, frame, bearing, scraper, adjustment of disc and tilt angles.

Secondary Tillage and Interculture

- Harrows : types; parts, materials of construction and functions, adjustment of gang angle and leveling of harrow.
- Cultivators; types; parts, materials of construction and functions.
- Clod crushers, levellers and bund former: types, parts materials of construction and functions.
- Rotavators, parts, materials of construction and functions and safety measures.
- Zero Tillage.

Seeding Machinery

- Methods of sowing – broadcasting, dibbling, seed dropping behind the plough, drilling hill, dropping, check sowing and transplanting.
- Seed drills; plain drills and seed-cum-fertiliser drills, various parts, materials of construction and their functions; types of seed metering devices, types of furrow openers; ground wheel drive, calibration of a seed drill.
- Planters; types, parts, materials of construction and functions.
- Types of metering devices; setting up of planter for row and plant spacing.
- Working principle of transplants.

Time:2 hrs

**Theory
Syllabus
Semester-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

Harvesting Machinery

- Reaper windrower.

- Types of tractors and power tiller operated reaper windrowers.
- Constructional details of reaper windrower, functions of parts and material of constructions and adjustments.
- Safety precautions.
- Common faults and corrective measures.

Combine Harvestors

- Constructional details and functions of different sub-assemblies of tractor power take off shaft (P.T.O.) driven and self-propelled combine harvestors.
- Adjustments in reel, cutter bar, conveyor, threshing unit, separating and cleaning unit, grain augers and begging units; power transmission mechanism, hydraulic and electrical systems.
- Care, maintenance offseason storage and safety precautions.
- Common faults and corrective measures.
- Familiarisation and identification of different sub-assemblies and components, material of construction and functions of combine harvestors.
- Adjustment, care, maintenance and safety precautions.
- Common faults and remedies.
- Straw Reaper

Threshing Machinery

- Types of power threshers, working principles and constructional details.
- Different types of threshing cylinders and their adjustments.
- Types of cleaning & grain handling systems & their adjustments.
- Care, maintenance and safety precautions.
- Common faults and corrective measures.
- Dismantling of power thresher, identification of different components, material of construction, checking of damaged/worn out parts, their reconditioning repair and/or replacement & assembly.
- Installation, adjustment & commissioning of a power thresher.
- Safety precautions.
- Common faults and trouble shooting.
- Plant Protection Equipment (Type of sprayers and dusters), uses and safety precautions.

Paper : III

CROP PRODUCTION MACHINERY

Time : 3 hrs.

**PRACTICAL
Semester-I**

M. Marks : 25

Tillage and Interculture

- Familiarisation with different agricultural machinery.
- Identification of different part of mould board plough and materials of construction; dismantling of mouldboard plough, reconditioning/replacement of damaged/worm-out parts; assembling of different parts of mould board plough; adjustments of horizontal and vertical suction;

adjustments of depth, width, coulter, jointer and furrow wheel, servicing of mouldboard plough after use.

- Identification of different part of disc plough, materials of construction of various parts; dismantling of disc plough; reconditioning/replacement of damaged/worn-out parts; assembling of different parts of disc plough; adjustments of disc & tilt angles; adjustments of depth, width & furrow wheel.
- Identification of different part of disc-harrows and cultivators, materials of construction of various parts; dismantling reconditioning/replacement of damaged/worm-out parts; assembling and various adjustment.
- Identification of different part of rotavators & rotary tilters, materials of construction of various parts, dismantling of disc plough; reconditioning/ replacement of damaged/worm-out parts; assembling and lubrication, checking of damage to safety guards and their repair.

Seeding and Planting

- Identification of different part of a seed cum fertiliser drill; materials of construction of various parts; adjustment of furrow opener and reconditioning/replacement of damaged/worm-out parts of the seed-cum-fertiliser drills; dismantling of seed and fertilizer metering mechanisms and study of parts.
- Calibration of a seed-cum-fertiliser drill in a shop; servicing and maintenance after its use.
- Identification of different parts of planters-materials of construction, adjustments of furrow-opener and reconditioning/replacement of damaged /worm-out parts; familiarization with different types of furrow openers, selection of proper seed plates, distance gear and their fitting, adjustment of land markers; servicing and maintenance of after use.
- Familiarisation with transplants.

Time : 3 hrs.

**PRACTICAL
SEMESTER-II**

M. Marks : 50

Reeper Windrower

- Identification of different parts and components and materials of construction of a reaper windrower. Carrying out adjustments of cutter bar, registration and alignment, overload protection safety clutch, operation care and maintenance.
- Dismantling, checking, reconditioning, replacement of different reaper components and assembly.
- Trouble shooting.
- Types of Sprayers and Dusters and precautions to be observed while operating.

Combine Harvester

Dismantling and identification of different parts of combine Harvester

Threshing Machinery

- 1) Dismantling and identification of different parts of power thresher
- 2) Dismantling and identification of different parts of Reapes.

II BUSINESS AND COMMERCE GROUP

(i) OFFICE SECRETARYSHIP Modern Office Practices - II

**Paper-I
Time:2 hrs**

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

Part I

Unit-I Introduction

Meaning and Evolution of Modern Office. Functions of an Office, Place of an Office in a Modern Business Organization. Concept of Office Management, Departments of a Large Office, Role and Qualities of a Modern Office Manager.

Unit-II Office Machines

Meaning & Relevance of Office Automation

Types of Machines : Typewriter, electronic typewriter, duplicating machines, calculating machines, fax machines, punching card machines, franking machines, cheques writing machines, telephones, telex and teleprinters, envelope addressing machines, zerox machines and other machines of routine character e.g. stapler, envelope opener, punching machines etc. Computer-Hardware (Basics) and Software (MS Office-MS Word, MS Excel, MS Power Point), Types and use of printers, scanners, copies and other appliances.

Time:2 hrs

**Theory
Syllabus
Semester-II
Part II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

Unit-III Office Record Management

Meaning and features of record management, Filing; Characteristics of a good filing system: Classification of records for filing (Alphabetic, Numeric etc.)

Modern methods: vertical, horizontal, lateral and suspension; equipment; types of files; filing routine, disposal of obsolete documents; indexing; importance; types.

Page index; card index; strip index; rotary index; Micro filing; merit and demerits; types roll film, fiche, jackets etc. Meaning of electronic filing, Data Storage Management.

Procedure for Inward and Outward mailing: Diary register, Dispatch register, peon book.

Unit-IV Office Accounting and services

Introduction to elements of book-keeping and accounts, journal, ledger, trial balance. Cash book, petty cash book and their maintenance, Banking operation e.g. types of accounts, opening of account, overdraft, cheques, writing of cheques, crossing of cheques, endorsement of cheques, bank drafts, travelers cheques and withdrawals and deposits in bank accounts.

PRACTICAL

Time : 3 hrs.

M. Marks : 25

Semester-I

1. Student will be imported practical knowledge regarding basics of computers, operation of office machines.

Time : 3 hrs.

PRACTICAL

M. Marks : 50

SEMESTER-II

2. Creating presentation with Power Point, working with slides in Power Point, creating, editing, formatting, Microsoft Word document, Creating Tables in Microsoft word; Creating editing and formatting worksheets in Microsoft Excel, working with data in Microsoft Excel.

SHORTHAND-ENGLISH**Paper-II**

Time:2 hrs

**Theory
Syllabus
Semester-I**

**Marks: 30
Internal Assessment: 10
Total Marks: 40**

Part I

1. Evolution, development, scope and importance of Shorthand.

2. Consonant-definition, strokes, difference between stroke Chay and Ray, Joining of strokes.
3. Vowels-definition, vowel sounds, places and value of vowel signs.
4. Alternative signs of the consonant R & H. Value of H tick and H dot.
5. Use of Diphthongs, Triphones and their signs.

Time:2 hrs

**Theory
Syllabus
Semester-II
Part-II**

**Marks: 30
Internal Assessment: 15
Total Marks: 45**

6. Abbreviated W (semi circle).
7. Gramalogues, phraseography
8. Circle S and Z, sw,ss,sz, loop st & str.
9. Use of initial and final hooks, alternative signs of hooked strokes, circle and loop with initial and final hooks- 'shun' and 'sh' upward.
10. Halving Principle and doubling principle.

**SHORTHAND-ENGLISH
Practical**

Time : 3 hrs.

Semester-I

M. Marks : 25

1. Students are to pick up a speed of 60W.P.M. They will be dictated a Para of 150 words, they are to transcribe it within 15 minutes on type writer.

Time : 3 hrs.

**PRACTICAL
SEMESTER-II**

M. Marks : 50

2. Students will be dictated another Para of 150 words which they are to transcribe within 15 minutes on type writer.
3. Sessional work-A file of at least 100 pages will be prepared by the students during the session.

ਪੇਪਰ-II

**ਸ਼ਾਰਟਹੈਂਡ-ਪੰਜਾਬੀ
ਪਾਠ-ਕ੍ਰਮ
ਲਿਖਤੀ ਪ੍ਰੀਖਿਆ**

ਸਮਾਂ : 2 ਘੰਟੇ

**ਅੰਕ : 30
ਸੀ. ਸੀ. ਈ./ਇੰਟ. ਐਸਸ.: 10
ਕੁੱਲ ਅੰਕ : 40**

**ਭਾਗ-I
Semester-I**

1. ਸ਼ਾਰਟਹੈਂਡ ਦੀ ਉੱਤਪਤੀ, ਵਿਕਾਸ, ਖੇਤਰ ਅਤੇ ਮਹੱਤਤਾ।
2. ਵਿਅੰਜਨ-ਪਰਿਭਾਸ਼ਾ, ਵਿਅੰਜਨ ਰੇਖਾਵਾਂ, ਚ/ਰ ਵਿੱਚ ਅੰਤਰ, ਸਟਰੋਕਾਂ ਦਾ ਆਪਸ ਵਿੱਚ ਜੋੜਨਾ।
3. ਸਵਰ-ਪਰਿਭਾਸ਼ਾ, ਭਾਰੀਆਂ ਤੇ ਹਲਕੀਆਂ ਸੁਰਾਂ, ਪਹਿਲੇ, ਦੂਜੇ ਅਤੇ ਤੀਜੇ ਸਥਾਨ ਦੇ ਸਵਰ ਚਿੰਨ੍ਹਾਂ ਦੀ ਵਰਤੋਂ, ਲਾਈਨ ਅਨੁਸਾਰ ਸ਼ਬਦਾਂ/ਸਟਰੋਕਾਂ ਦਾ ਲਿਖਣ ਸਥਾਨ।
4. ਬਦਲ ਰੇਖਾਵਾਂ-ਰ/ੜ, ਲ, ਹ, ਵਿਅੰਜਨ ਰੇਖਾਵਾਂ ਦੇ ਬਦਲਵੇਂ ਰੂਪ, 'ਹ' ਟਿੱਕ ਅਤੇ 'ਹ' ਡਾਟ (ਬਿੰਦੀ)।
5. ਸੰਯੁਕਤ ਸਵਰ, ਵਿਸ਼ਰਾਮ ਚਿੰਨ, ਬਿੰਦੀ, ਟਿੱਪੀ ਦਾ ਪ੍ਰਯੋਗ।

**ਭਾਗ- II
Semester-II**

6. 'ਵ' ਲਈ ਅੱਧਾ ਚੱਕਰ 9 (ਸੈਮੀ-ਸਰਕਲ)।
7. ਸ਼ਬਦ ਚਿੰਨ੍ਹ, ਵਿਸ਼ਰਾਮ ਚਿੰਨ, ਬਿੰਦੀ, ਟਿੱਪੀ ਦਾ ਪ੍ਰਯੋਗ।

8. ਛੋਟਾ/ਵੱਡਾ ਚੱਕ/ਲਘੂ ਦੀ ਵਰਤੋਂ ਅਤੇ ਜਾਣਕਾਰੀ।
9. ਆਰੰਭਕ ਅਤੇ ਅੰਤਮ ਹੁੱਕਾਂ ਦਾ ਪ੍ਰਯੋਗ, ਹੁੱਕ ਲੱਗੀਆਂ ਸਟਰੋਕਾਂ ਦੇ ਬਦਲਵੇਂ ਰੂਪ, ਆਰੰਭਕ ਤੇ ਅੰਤਮ ਹੁੱਕਾਂ ਨਾਲ ਚੱਕਰ ਦੇ ਲੂਪ ਦੀ ਵਰਤੋਂ। ਸ਼ਨ ਹੁੱਕ
10. ਵਿਅੰਜਨ ਰੇਖਾਵਾਂ ਦਾ ਅੱਧ ਕਰਨ ਅਤੇ ਦੁੱਗਣਾ-ਕਰਨ ਦਾ ਸਿਧਾਂਤ।

ਪ੍ਰਯੋਗੀ ਪ੍ਰੀਖਿਆ

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁੱਲ ਅੰਕ : 50

Semester-I

1. 15● ਸ਼ਬਦਾਂ ਦਾ ਇੱਕ ਪੈਰਾ, 6● ਸ਼ਬਦ ਪ੍ਰਤੀ ਮਿੰਟ ਦੀ ਰਫ਼ਤਾਰ ਨਾਲ (ਢਾਈ ਮਿੰਟਾਂ ਵਿੱਚ) ਲਿਖਵਾਇਆ ਜਾਵੇਗਾ। ਇਸ ਦਾ ਲਿੱਪੀ ਅੰਤਰਣ ਟਾਈਪ ਮਸ਼ੀਨ ਰਾਹੀਂ 15 ਮਿੰਟ ਵਿੱਚ ਕਰਨਾ ਹੋਵੇਗਾ।

Semester-II

2. 15● ਸ਼ਬਦਾਂ ਦਾ ਇੱਕ ਹੋਰ ਪੈਰਾ, 6● ਸ਼ਬਦ ਪ੍ਰਤੀ ਮਿੰਟ ਦੀ ਰਫ਼ਤਾਰ ਨਾਲ ਲਿਖਵਾਇਆ ਜਾਵੇਗਾ। ਪ੍ਰੀਖਿਆਰਥੀ ਇਸ ਦਾ ਵੀ ਲਿੱਪੀ ਅੰਤਰਣ ਟਾਈਪ ਮਸ਼ੀਨ ਰਾਹੀਂ 15 ਮਿੰਟਾਂ ਵਿੱਚ ਮੁਕੰਮਲ ਕਰਣਗੇ।
3. ਸਿਖਲਾਈ ਦੌਰਾਨ ਵਿਦਿਆਰਥੀ ਵਲੋਂ ਸ਼ਾਰਟਹੈਂਡ ਲਿਖੀ ਨੋਟ-ਬੁੱਕ ਅਤੇ ਟਾਈਪ ਮਸ਼ੀਨ ਦੁਆਰਾ ਲਿੱਪੀ ਅੰਤਰਣ ਕੀਤੇ ਕੰਮ ਦੀ ਘੱਟੋ-ਘੱਟ 10● ਪੰਨਿਆਂ ਦੀ ਫਾਈਲ ਤਿਆਰ ਕੀਤੀ ਜਾਵੇ।

isij&II

'kkVZgSaM (fgUnh)

fyf[kr ijh{kk
Semester-I

le; % 2 ?kaVs

Hkkx&I

vf/dre vad % 30

- 1- 'kkVZgSaM dh mRifr] fodkl] {ks=k vkSj egRoA
- 2- O;atu&ifjHkk"kk] O;atu js[kk] p@j esa varj] IVjksdksa dks vkil esa tksMukA
- 3- Loj&ifjHkk"kk] Hkkjh vkSj gYdh lqjksa] lqjksa ds LV³ksd ds chp rhljs LFKku ds Loj fpUg dk iz;ksx] iafDr;ksa ds vuqlkj 'kCnksaA LVjksdksa dks fy[kus dh txgA
- 4- cnyus okyh js[kk,a& j@M@y@g O;atu js[kkvksa ds cnys :i ^g* fVd vkSj ^g* MkjVA
- 5- la;qDr Loj&ifjHkk"kk vkSj iz;ksxA

Semester-II

Hkkx&II

- 6- ^o* ds fy, vk/k pØ (ISeh ljdky)A
- 7- 'kCn fpß] fo'kjkw fpUg] fcUnh dk iz;ksxA
- 8- NksVk@cM+k pDdj@ywi dk iz;ksx o tkudkjA
- 9- vkjEGk vkSj vafre gqdksa dk iz;ksx] gqg yxh gqbZ LV³ksd ds cnys :i] vkjafHkd vkSj vafre gqdksa ds lkFk pDdj vkSj ywi ^ku* ,ao ^k* Åij okysA
- 10- vk/kdju vkSj nksxq.kk djus dk fl¼karA

iz;ksxh ijh{kk

le; % 3 ?kaVs

vf/dre vad % 50

Semester-I

- 1- <kbZ (2½) feUV dk ,d iSjk tks 150 'kCnksa dk gksxk] tks 60 'kCn izfr feUV dh xfr ls fy[kk;k tk,xkA bldk fyfi&varju 15 feUVksa esa djuk gksxkA

Semester-II

- 2- <kbZ (2½) feUV dk ,d vkSj iSjk tks fd 150 'kCnksa dk gksxk] bls Hkh 60 'kCn izfr feUV dh xfr ls fy[kk;k tk,xkA bldk Hkh fyfi&varju 15 feUVksa esa iwjk djuk gksxkA
- 3- fl[kykbZ ds :i esa lS'ku ds nkSjku ifj{kkFkhZ dh vkSj ls iwjs o"kZ esa fd;s x, dk;Z dh de ls de 100 i"Bksa dh QkbZy rS;kj dh tk,xhA

Paper-III

Time:2 hrs

TYPEWRITING-ENGLISH

Theory

Syllabus

Semester-I

Marks: 30

Internal Assessment: 10

Total Marks: 40

Part-I

1. Type-writer-Introduction, importance; types-standard ad portable.
2. Care and upkeep of the typewriter, instruments for removing minor faults of typewriter, typewriter accessories.
3. Essential parts of typewriter and their functions.
4. Ribbon-Introduction. Need of changing ribbon , method of changing ribbon, care of ribbon.
5. Typing-Introduction, sifting posture, insertion of paper, fixing margins.
6. Methods of typing-touch and sight system.

Part-II

7. Key-board practice, keyboard structure, different keys.

Time:2 hrs

Theory

Syllabus

Semester-II

Marks: 30

Internal Assessment: 15

Total Marks: 45

8. Speed development and importance of accuracy in typing.
9. Punctuations and their use.
- 10.Errors and omissions in typing and their rectification.
- 11.How to type general letters/applications for different posts. Different forms of letters-private and government.

Practical

Time : 3 hrs

Semester-I

M. Marks : 25

1. Students are to pick up speed of 25 W.P.M. A para of 250 words will be given to students which they are to typed in 10 minutes.

Time : 3 hrs.

PRACTICAL

M. Marks : 50

SEMESTER-II

2. Typing a letter or application of at least 200 words for a post in 30 minutes.
3. Sessional work. A file of at least 100 pages will be prepared by students during the session.

ਪੇਪਰ-III

ਸਮਾਂ : 2 ਘੰਟੇ

ਟਾਈਪ ਰਾਇਟਿੰਗ-ਪੰਜਾਬੀ

Semester-I

ਭਾਗ-I

ਕੁੱਲ ਅੰਕ : 30

1. ਪੰਜਾਬੀ ਟਾਈਪ ਮਸ਼ੀਨ ਨਾਲ ਜਾਣ-ਪਛਾਣ, ਮਹੱਤਤਾ, ਮਸ਼ੀਨਾਂ ਦੀਆਂ ਕਿਸਮਾਂ-ਸਟੈਂਡਰਡ, ਪੋਰਟੇਬਲ।
2. ਟਾਈਪ ਮਸ਼ੀਨ ਦੀ ਸੰਭਾਲ, ਸਫਾਈ ਛੋਟੇ-ਮੋਟੇ ਨੁਕਸ ਦੂਰ ਕਰਨ ਲਈ ਸਾਜ਼ੋ-ਸਾਮਾਨ (ਔਜ਼ਾਰ)।
3. ਟਾਈਪ ਮਸ਼ੀਨ ਦੇ ਮੁੱਖ ਭਾਗ ਤੇ ਉਹਨਾਂ ਦੀ ਵਰਤੋਂ।
4. ਰਿਬਨ-ਜਾਣ-ਪਛਾਣ, ਬਦਲਣ ਦੀ ਲੋੜ, ਵਿਧੀ ਤੇ ਸਾਂਭ-ਸੰਭਾਲ।
5. ਟਾਈਪ ਕਰਨ ਸੰਬੰਧੀ ਆਮ ਵਾਕਫੀ, ਬੈਠਣ ਦਾ ਢੰਗ, ਕਾਰਜ ਚੜ੍ਹਾਉਣਾ, ਹਾਸ਼ੀਆ ਸੈਟ ਕਰਨਾ।
6. ਟਾਈਪ ਕਰਨ ਦੀਆਂ ਵਿਧੀਆਂ, ਪ੍ਰਤੱਖ ਅਤੇ ਛੋਹ ਪ੍ਰਣਾਲੀ।

ਭਾਗ-II

7. ਕੀ-ਬੋਰਡ ਅਭਿਆਸ- ਕੀ ਬੋਰਡ ਢਾਂਚਾ, ਵੱਖ-ਵੱਖ ਕੀਜ਼ (Keys)।

Semester-II

8. ਸਾਫ, ਸੁੱਧ ਅਤੇ ਤੇਜ਼ੀ ਨਾਲ ਟਾਈਪ ਕਰਨਾ।
9. ਵਿਸ਼ਰਾਮ ਚਿੰਨ੍ਹ ਅਤੇ ਉਹਨਾਂ ਦਾ ਟਾਈਪਿੰਗ ਵਿੱਚ ਪ੍ਰਯੋਗ।
10. ਅਸੁੱਧੀਆਂ, ਭੁੱਲਾਂ ਅਤੇ ਉਹਨਾਂ ਦਾ ਸੁਧਾਰ।
11. ਆਮ ਜੀਵਨ ਵਿੱਚ ਕੰਮ ਆਉਣ ਵਾਲੇ ਬਿਨੈ-ਪੱਤਰ, ਵੱਖ-ਵੱਖ ਅਸਾਮੀਆਂ ਲਈ ਭੇਜੇ ਜਾਣ ਵਾਲੇ ਬਿਨੈ-ਪੱਤਰ, ਨਿੱਜੀ ਅਤੇ ਸਰਕਾਰੀ ਪੱਤਰਾਂ ਦੇ ਵੱਖ-ਵੱਖ ਨਮੂਨੇ।

ਪ੍ਰੈਕਟੀਕਲ

ਸਮਾਂ : 3 ਘੰਟੇ

Semester-I

ਵੱਧ ਤੋਂ ਵੱਧ ਅੰਕ : 25

1. ਪੰਜਾਬੀ ਟਾਈਪ- ਪ੍ਰੀਖਿਆ ਲਈ 25 ਸ਼ਬਦਾਂ ਦਾ ਇੱਕ ਪੈਰਾਂ ਦਿੱਤਾ ਜਾਵੇਗਾ, ਜਿਸ ਨੂੰ 10 ਮਿੰਟਾਂ ਵਿੱਚ 25 ਸ਼ਬਦ ਪ੍ਰਤੀ ਮਿੰਟ ਦੀ ਰਫਤਾਰ ਨਾਲ ਟਾਈਪ ਕਰਨਾ ਹੋਵੇਗਾ।

ਸਮਾਂ: 3 ਘੰਟੇ

Semester-II

ਵੱਧ ਤੋਂ ਵੱਧ ਅੰਕ: 50

2. ਵੱਖ-ਵੱਖ ਅਸਾਮੀਆਂ ਲਈ ਭੇਜਿਆ ਜਾਣ ਵਾਲਾ ਬਿਨੈ-ਪੱਤਰ ਜਾਂ ਆਮ ਜੀਵਨ ਵਿੱਚੋਂ ਲਿਖਿਆ ਜਾਣ ਵਾਲਾ ਘੱਟੋ-ਘੱਟ 20 ਸ਼ਬਦਾਂ ਦਾ ਸਧਾਰਣ ਪੱਤਰ ਦਿੱਤਾ ਜਾਵੇਗਾ। ਜਿਹੜਾ ਪ੍ਰੀਖਿਆਰਥੀ 30 ਮਿੰਟਾਂ ਵਿੱਚੋਂ ਟਾਈਪ ਕਰੇਗਾ।
3. ਸਾਲ ਦੌਰਾਨ ਵਿਦਿਆਰਥੀ ਵੱਲੋਂ ਟਾਈਪ ਕੰਮਾਂ ਦੀ ਘੱਟੋ-ਘੱਟ 100 ਪੰਨਿਆਂ ਦੀ ਫਾਈਲ ਤਿਆਰ ਕੀਤੀ ਜਾਵੇ।

isij&III

VkbZi&jkbfVax (fgUnh)

fyf[kr ijh{kk

Semester-I

Le; % 2 ?kaVs

Hkkx&I

vf/dre vad % 30

- 1- fgUnh VkbZi e'khu ds lkFk tku&igpku] egRo] e'khuksa dh fdLesa %& LVSaM[®]M ,ao iksjVscyA
- 2- VkbZi e'khu dh laHkky] lQkbZ] NksVs&NksVs uqDlksa dks Bhd djus ds fy, iz;ksx gksus okyk lkeku vkSj vkSt+kjA
- 3- VkbZi e'khu ds izeq[k Hkkx vkSj mudk iz;ksxA
- 4- fjcU&tku&igpku] cnyus dh tjr fof/ vkSj laHkkyA
- 5- VkbZi e'khu lEcU/h tkudkjh&cSBus dk <ax] dkxt p<+kuk vkSj gkf'k;k lgh djukA
- 6- VkbZi djus dh fof/;ka& izR;{k (Sight) ,ao vizR;{k (touch) iz.kkyhA

Hkkx&II

- 7- dh&cksZM vH;kl&dh&cksZM foHkktu] xkbZM dht+ (Keys)A

Semester-II

- 8- lkQ] 'kq¼ vkSj rhozrk (Speed) ds lkFk VkbZi djukA
 9- fojke fpß vkSj mudk iz;ksxA
 10- v'kqf¼;ka] xYrh;ka vkSj lq/kjA
 11- vke thou ds iz;ksx okys i=k] vvx&vyx ukSdfj;ksa ds fy, Hksts tkus okys izkFkZuk i=kA

iz;ksxh ijh{kk

le; % 3 ?kaVs

vf/dre vad % 50

Semester-I

- 1- fgUnh VkbZi ijh{kk ds fy, 250 'kCnksa dk ,d iSjk fn;k tk,xk ftls ijh{kkFkhZ 10 feuV esa VkbZi djsxkA

Semester-II

- 2- vvx&vyx ukSdfj;ksa ds fy, Hksts tkus okys izkFkZuk i=k rFk vke thou esa fy[kk;k tkus okyk i=k fn;k tk,xk tks fo/kFkhZ dks 30 feuV esa VkbZi djuk gksxkA
 3- iwjs o"kZ esa fo/kFkhZ }kjk fd, x, VkbZi dke dh de ls de 100 iUuksA dh QkbZy rS;kj dh tk,xhA

(ii) ACCOUNTANCY & AUDITING

Paper-I

Time:2 hrs

Modern Office Practices

Theory

Syllabus

Semester-I

Part-A

Marks: 30

Internal Assessment: 10

Total Marks: 40

Unit-I Introduction

- Meaning and Evaluation of Modern Office. Functions of an Office, Place of an office in a modern Business organization. Concept of Office Management, Department of a Large Office, Role and Qualities of a Modern Office Manager.

Part-B

Unit-III Office Communication

Meaning and Importance of Effective Communication.

Ways of Communication: Verbal (Written, spoken) and non-verbal communication, Internal and External Communication - Their importance in different setting and their disadvantages.

Tools of Communication : Letter, Telephone, Extension PBX, Intercom, facsimile, e-mail, video conferencing, etc.

Postal Services: Different modes of sending letters, parcels, telegrams and packets, Courier, Speed post.

Time:2 hrs

Theory

Syllabus

Semester-II

Marks: 30

Internal Assessment: 15

Total Marks: 45

Unit-II Office Machines

Meaning & Relevance of Office Automation

Types of Machines: Typewriter, electronic, typewriter duplicating machines, calculating machines, punching card machines, franking machines, cheque writing machines, telephones, telex and teleprinters, envelope addressing machines, zerox machines and other machines of routine character e.g. stapler, envelope opener, punching machines etc.

Computer-Hardware (Basics) and Software (MS Office-MS Word, MS Excel, MS Power Point), Types and Use of Printers, Scanners, Copies and other appliances.

Part-B

Unit-IV Office Record Management

Meaning and features of record management, Filing : Characteristics of a good filing system: classification of records for filing (Alphabetic, Numeric, etc.) Modern methods; vertical, horizontal, lateral and Suspension; equipment; types of Files, filing routine; disposal of obsolete documents; indexing, importance, types-page index; card index; strip index; rotary index, Micro filing merit and demerits; types roll film, fiche, jackets, etc. Meaning of electronics filing, data storage management.

PRACTICAL SEMESTER-I

Time : 3 hrs

M. Marks : 25

Student will be imparted a practical knowledge regarding basics of computers, Operation of Scanner, Printer, Photocopiers, fax Machines and other office application Communication skills (Resume writing and applications of jobs).

Time : 3 hrs

SEMESTER-II

M. Marks : 50

Creating presentation with Power Point, working with slides in Power Point; Creating, editing, formatting Microsoft Word document, Creating Tables in Microsoft word, Creating editing and formatting worksheets in Microsoft Excel, working with data in Microsoft Excel.

Paper II

PRINCIPLES OF BUSINESS AND ECONOMICS

Time : 2:30 hrs.

Theory Part A

Marks: 45

Int. Ass./CCE: 20

Principle of Business

Total Marks : 65

- (i) Business-Definition, its nature, functions and importance. Component of Business-Commerce Industry and Trade.
- (ii) Forms of Organizations : Sole Trader, Partnership and Joint Stock Company, their features, advantages and disadvantages.
- (iii) Methods of Buying and Selling, Conditions of Purchase and Sale.

Part B Economics

- (i) Definition and scope of Economics, the economic activities of man, subject matter of economics, fundamental concepts - wealth, goods, utility, value and price, consumption, human wants and their satisfaction, laws of diminishing and equi-marginal utility, demand, law of demand and elasticity of demand. Supply, law of supply and elasticity of supply.

Time: 3 hrs

Theory Syllabus Semester-II

Marks: 65

Internal Assessment: 30

Total Marks: 95

- (iv) Functions and Services of Whole sellers and Retailers, Direct Marketing, Tele Marketing, Internet Marketing.
- (v) Meaning of Bank, Functions of a bank, types of bank accounts, cheques, drafts, bills of exchange and promissory notes.
- (vi) Importance of transport; merits and demerits of different modes of transport.

- (vii) Communication : postal, telegraph and recent trends in communication, fax, internet, e-mail, video-conferencing.

**Part B
Economics**

- (ii) Definition and scope of Economics, the economic activities of man, subject matter of economics, fundamental concepts - wealth, goods, utility, value and price, consumption, human wants and their satisfaction, laws of diminishing and equi-marginal utility, demand, law of demand and elasticity of demand. Supply, law of supply and elasticity of supply.
- (iii) Production: Meaning and factors of production; Land and its productivity, Labour; Meaning, features of labour, division of labour, efficiency of labour, mobility of labour, Capital : Meaning and functions; Entrepreneurship: Meaning, features and significance.

PAPER-III

BOOK KEEPING AND ACCOUNTANCY

Time : 2:30 hrs.

**Theory
Part A
SEMESTER-I**

**Marks: 45
Int. Ass./CCE: 20
Total Marks : 65**

Unit I Introduction to Accounting

- ❖ Accounting Meaning, Accounting as source of information, internal and external users of accounting information and their needs, Advantages and limitations of Accounting. Difference between book-keeping and Accountancy.
- ❖ Basic Accountancy terms - Asset, Liability, Capital, Expense, Income, Expenditure, Revenue, Debtor, Creditor, Goods, Cost, Gain, Stock, Purchase, Sale, Loss, Profit, Voucher, Discount : Cash and Trade discount, Transactions.

Unit II Recording Business transactions

- ❖ Voucher and Transactions : Origin of Transactions-Source Documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach-Meaning and Analysis of transactions using Accounting equations, Rules of Debit and Credit.
- ❖ Recording of Transactions : Books of original entry : Journal, Special Purpose Books (a) Cash Books-Simple, Cash book with Bank column and Petty Cash book, (b) Purchase Book (c) Sales Book (d) Purchase Returns Book (e) Sale Returns book (f) Bills Receivable Book (g) Bills Payable Book.

PART-B

Unit V Accounting for Bills of Exchange

- ❖ Bills of Exchange and Promissory Note : Definition, Features, Parties, Specimen and Distinction.
- ❖ Important Terms : Term of Bill, Concept of Accommodation Bill, Days of Grace, Date of Maturity, Bill at Sight, Bill After Date, negotiation, Endorsement, Discounting of Bill, Dishonour, Retirement and Renewal of a Bill, Insolvency of a Acceptor.
- ❖ Accounting treatment of Bill Transactions.

Unit VI Depreciation of Assets.

- ❖ Depreciation : Meaning and need for charging depreciation, Factor affecting Depreciation, Methods of Depreciation-Straight Line Method, Written Down Value Method (Excluding change in method), Method of Recording Depreciation charging to Assets Account, Treatment of Disposal of Assets.

Time: 3 hrs

**Theory
Syllabus
Semester-II**

**Marks: 65
Internal Assessment: 30
Total Marks: 95**

PART-A

Unit III Trial Balance and Rectification of Errors

- ❖ Trial Balance : Meaning, Objective, Advantages and Methods of preparation.
- ❖ Errors : Types of Errors, Errors affecting Trial Balance, Errors not affecting Trial Balance.
- ❖ Detection and Rectification of Errors (One sided and two sides); Use of suspense Account.

Unit IV Bank Reconciliation Statement

- ❖ Bank Reconciliation Statement: Meaning, Need and Preparation Correct Cash Balance.

PART-B

Unit III Financial statements

- ❖ Financial Statements : Meaning and Objectives.
- ❖ Distribution between Capital and Revenue Expenditure.
- ❖ Balance Sheet : Need, Grouping, Marshalling of Assets and Liabilities, Vertical Presentations of Financial Statements.
- ❖ Adjustments of Preparation of Financial Statements with Respect to Closing Stock, Outstanding Expenses, Prepaid Expenses, Accrued Income, Income Received in Advance, Depreciation, Bad Debts, Provision of Doubtful Debts, Provision of Discount on Debtors, Manager's Commission.
- ❖ Preparation of Trading and Profit & Loss Account and Balance Sheet of Sole Proprietorship.

Unit IV Auditing

- ❖ Origin of Auditing : Meaning and definition of Auditing : Function and objectives of Auditing.
- ❖ Qualities of an Auditor: Scope of Auditing; Advantages and Limitations of Auditing; Auditing in India.

**(iii) PURCHASING AND STORE KEEPING
PAPER I: ELEMENTS OF PURCHASING**

Time : 2 hrs

THEORY

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

SEMESTER - I

UNIT-I: PRODUCT

Time, place, form and possession utilities-Competitive and complementary products.

UNIT-II: MARKET

Essence of Market and Marketing-Law of demand and supply-off and peak seasons.

Time : 2 hrs

THEORY

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

SEMESTER - II

UNIT-III: PURCHASING

Purchase Organization, Purchase Functions, Principals of purchasing, Methods of Purchasing, Purchase Routine, Value Analysis, Terms of Trade, Quantity Discount, Ethics of Purchase-Principle and standard of purchase practice.

UNIT-IV: PURCHASE BUDGET

Meaning-Importance-control of purchases-Factors governing a budget-Techniques of drawing up a budget-Budget preparation.

UNIT-V: CHANNEL OF DISTRIBUTION

Channel of Distribution : Wholesaler, retailers and their kinds.

**PAPER I : ELEMENTS OF PURCHASING
PRACTICALS AND PROJECT WORK**

Time: 3 hrs**SEMESTER - I****Marks: 25**

1. Conduct a market survey through case study and questionnaire pertaining to local market for purchase of locally produced/distributed products.

Time: 3 hrs**SEMESTER - II****Marks: 50**

2. Designing and filling up of Performa such as purchase requisitions, enquiry forms, comparative statements, purchase order.
3. Checking of invoices, bills with goods received note and/or inspection report.
4. Preparation of purchase budget of your class for total books and stationary requirements. (Actual purchasing and distribution to be encouraged).
5. Purchase class-room furniture-Sourcing, obtaining, quotations, negotiations, selecting suppliers and placing a purchase order.

PAPER II : ELEMENTS OF STORRKEEPING

Time: 2 hrs**SEMESTER - I****Marks: 30****Int. Ass./CCE: 10****Total Marks: 40****UNIT-I: STOREKEEPING**

Meaning, Objectives, Functions, Importance, Storekeeper Role, qualifications, duties and responsibilities.

UNIT-II: STORE HOUSE

Location and layout- Types, Security measures-Custody of Keys-Movements of person and material-Marking the stores-Statutory regulations-safety measures-storage equipment-materials handling equipments-cost in selection of storage and materials handling equipments, care of equipments, Factors in installation of equipments, Importance of materials handling, Elements of material handling cost.

Time : 2 hrs**THEORY****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****SEMESTER - II****UNIT-III: RECEIPT OF MATERIALS**

Receipt of materials, Receipt procedure, Dispatch, Inspection at source, Binning, Placing and Indexing, maintaining and updating of stock ledger, Packages and their kinds.

UNIT-IV: INSPECTION, PRESERVATION AND ISSUE OF MATERIALS

Inspection its meaning & importance, advantages of Inspection, Inspection of quality& quantity, Inspection personnel's. Inspection results and action thereon. Preservation-its meaning and importance. Preservation of materials in storeroom, Issue of materials, Issue procedure, Issue documents.

UNIT-V: IDENTIFICATION OF STORES

Need and importance, Kinds of materials, Codification of materials, Codification System- Alphabetical, Numerical, Alpha number Stores Vocabulary, Marking of Stores, Colour Marking.

**PAPER II ELEMENTS OF STOREKEEPING
PRACTICAL AND PROJECT WORK**

Time: 3 hrs**SEMESTER - I****Marks: 25**

1. Sketch a layout of a store/ration shop clearly identifying and showing different elements, e.g. exits, fire extinguishers, allotment of areas etc.
2. Set up a lay out for storing school items/kitchen items/inflammatory items.
3. Designing and filling up proformas used in a store house.
4. Codification and marketing of items under No. 2.

Time: 3 hrs**SEMESTER - II****Marks: 50**

5. Visit to a store house and report there on (1) store room operation; (2) Material handling equipment; (3) Receipt and issue procedure and (4) Maintenance of bind cards.

PAPER III : GENERAL COMMERCIAL KNOWLEDGE

THEORY

Time: 2 hrs**SEMESTER - I****Marks: 30****Int. Ass./CCE: 10****Total Marks: 40****UNIT-I: PUBLIC RELATIONS**

Objectives of Public Relations (PR), Need and Importance of PR, Working of PR Deptt., Promotional PR-in the context of Purchasing –Ways to improve PR-Vendor-buyers, meets

Communications-Need and Importance, Modes including electronic communication

UNIT-II: TRANSPORTATION

Different modes of transport, their suitability, freight, Tax Rules, Documents relating to transportation, Delivery of consignments and settlement of claims.

Time: 2 hrs**SEMESTER - II****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****UNIT-III: INSURANCE**

Elements of General Insurance, Important types of Marine, Fire and Transit Insurance. Insurance Rules-Rules pertaining to Fire, Marine, Transport and Storage Insurance.

UNIT-IV: BANKING SERVICES

Banks and Type of Banks, Operation of various kinds of accounts, Procedure of Overdraft and Other Types of Loans, Negotiable Instruments, Meaning of cheques, Bill of exchange and elementary Knowledge of other instruments, Mode of remittance, Demand Draft(DD), Mail Transfer, Telegraphic Transfer and Pay Order.

UNIT-V: BUSINESS CORRESPONDENCE

Layout and essentials of a good business letter, correspondence relating to Inquiry, Quotation, order, cancellation of order, Complaints and settlements of claims; Correspondence relating to Banking

Operation including request for overdraft facility, Correspondence relating to settlement of insurance claims.

PAPER III: GENERAL COMMERCIAL KNOWLEDGE

PRACTICAL AND PROJECT WORK

Time: 3 hrs

SEMESTER - I

Marks: 25

- 1) **Postal information:** Registered letter, recorded letters, V.P.P., registered parcel, book post, money orders, telegram, fax, fill up the proformas and actually handling the activities.

Time: 3 hrs

SEMESTER - II

Marks: 50

- 2) **Banking Services:** Saving account, Recurring Deposit, Current account, Fixed Deposit, withdrawals, pay-in-slip, cheques, demand draft-filling up the proforma and actually opening one or two accounts, withdrawing and getting a draft.
- 3) Converse with your teacher and class mates on a given topic and prepare a report thereon.
- 4) Filling-up of a insurance declaration form.
- 5) Draft letters on all business matters as asked by your teacher.

(iv) TRAVEL AND TOURISM TRCHNIQUES

PAPER I

ELEMENTS OF TOURISM

THEORY

Time: 2 hrs

SEMESTER - I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Introduction:

Meaning of tourism, leisure, recreation, Tourist, Traveler, Transit, Pilgrim, Visitor, explorer; Definition of domestic and international tourists, Rome Declaration of 1963, Declaration of 1991; Forms of Tourism – inbound, outbound, domestic, international; Advantages and disadvantages of tourism.

Tourism Industry:

Nature and characteristics: components of tourism industry i) Tourism attraction, ii) Accommodation, iii) Catering, iv) Shopping, v) Entertainment, vi) Infrastructure, vii) Hospitality, viii) Transport, ix) Punjab Tourism development corporation, x) CITCO.

Time: 2 hrs

SEMESTER - II

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

Tourism Organization:

Role and function of Government and tourist Boards, ITDC, State Government Tourist Departments and Tourism Corporation; National Trade Associations and International Organizations: WTO, Pacific Asia Travel Association (PATA) IATA (Indian Association of Tour Operators, Travel Agent's Association of India (TAAI) Federation of Hotel & Restaurant Association of India Adventure tour Operators Association.

Tourist Motivation:

Determinants and motivations of tourism demand: Factors stimulating growth of tourism, types of motivation: Physical, Cultural, Business, Interpersonal, visiting Friends and Relatives (VFR); inference of Supply.

Tourism Marketing: Meaning and role of tourism marketing, Difference between selling and marketing; Special features of tourism marketing; Marketing concepts, Elements of marketing- Product Promotion, Physical distribution and Price.

**PAPER I: ELEMENT OF TOURISM
PRACTICAL AND PROJECT WORK**

Time: 3 hrs

SEMESTER - I

Marks: 25

- 1) Visit to the local tourism department office of your state to know the demand, infrastructural facilities, types of tourists visiting different places and prepare a report.
- 2) Make a survey of any 5 tourists visiting your state, to know about their perceptions about availability of accommodation, transportation and other infrastructural facilities and prepare a report.

Time: 3 hrs

SEMESTER - II

Marks: 50

- 1) Visit to travel agency/ tour operator to know about the motivation of different types of tourists visiting different places.
- 2) Visit to Railway Station/Airport to find out different packages offered to promote tourism and prepare a report.
- 3) Visit to tourism department of your state to find out the tourist facilities available.
- 4) Preparation of a project report on travel destinations covering history.
- 5) Collection of advertisements from newspapers, magazines and making an analysis of the same (regarding Tourism).

**PAPER II: TRAVEL AGENCY AND TOUR OPERATIONS
THEORY**

Time: 2 hrs

SEMESTER - I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Introduction Travel agencies and Tour Operators- meaning role and future prospects types: Department and organizational setup: Linkages and arrangements with hotels, Airlines and transport agencies and other segments of tourism industry: Travel terminology: current.

Setting up Travel Agency: Types of organizations- Proprietorship, Partnership, Private limited and public limited company: Procedure for approval of travel agents, Tour operators by Department of tourism, GOI, IATA rules and regulations, Basis of approval of a Travel Agency; Fiscal and non- fiscal incentives available to branch agencies and tour operators.

Time: 2 hrs

SEMESTER - II

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

Role & Functions: Role & functions of travel agents and tour operators: Providing travel information and counseling to the tourists, Reservation (both air transport & accommodation), documentation: passport, VISA, handling business & corporate clients, handling conferences & conventions, incentive tours.

Travel Terminology: Current and popular travel trade apprevations and other terms in Air, Rail, Road and Sea travel; Indian Airlines, Indian Railways; use of travel manuals- Railway timetable, ABC, TIM, Air Tariff Manual, Large Tariff Manual.

Air Ticketing: Basics of Air ticketing (domestic and international); Types of fares, Details of ticket, procedure for booking and cancellation. Familiarization with travel related foreign exchange regulations: Rules governing working of basic fares; Extra mileage percentage, Extra mileage percentage table excretion fares, Special fares from India; Baggage rules; Coding, decoding; Time differentials; GMT; CRS; Out bound Tours working of package programmes. Travel Related Documents: Viscous, ITC, Health requirements, RBI regulations, Passport.

Tour Costing: Concept and types of package tour, itinerary preparation and techniques, handling of tour file: costing of tour, charter operations documentation for surface transport, contract carriage permits, state carriage, All India Tourist Permit, taxes, registration, license, fitness certificate.

**PAPER II: TRAVEL AGENCY AND TOUR OPERATIONS
PRACTICAL AND PROJECT WORK**

Time: 3 hrs

SEMESTER - I

Max Marks: 25

- 1) Visit to the office of a travel agency firm to study its operations and understand its organization and role and prepare a report.
- 2) Visit to a railway station to study the procedure for booking, cancellation of tickets etc. and prepare a report.
- 3) Practical exercises/ field visits to know the procedure for booking of accommodating in a hotel for a tourist.
- 4) Visit to the passport office to learn the procedure of obtaining passport for a tourist

Time: 3 hrs

SEMESTER - II

Max Marks: 50

- 5) Visit to the office of an Airline/ Travel agency to study its workings in respect of issuance and cancellation of Air tickets and the concessions given if any to promote tourism.
- 6) Exercises in reading time table to know the types of trains, Class of travel, Types of fare and use of railway time table.
- 7) To visit the office of Regional Transport office to learn the registration procedure of different types of vehicles the formalities involved etc.
- 8) Practical exercises in making service an accommodation vouchers for tour operators.
- 9) Field visits for the collection of formats related to Hotels, airlines, Railways, Passport and VISAs.

PAPER III: TOURISM RESOURCES

THEORY

Time: 2 hrs

SEMESTER - I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Introduction: Meaning and concept of resources, attractions, destinations and resorts, Types of resources- natural, man made, socio-cultural, religious; Indian Heritage, British heritage.

Natural Resources: National Parks, Perriyar, Sasan , Kaziranga, Kanha, Jim Corbett; Sanctuaries- Bharatpur; Tiger Reserves- Sunderban, Simlipal; Publicity, Hill stations- Mussoorie, Shimla, Kodai Kanal, Mountabu, Darjling, Shillong; Land and landscape, places of tourist attraction- accessibility, Shopping facilities, accommodation, coastal areas and sea beaches, islands.

Time: 2 hrs**SEMESTER – II****Marks: 30**
Int. Ass./CCE: 15
Total Marks: 45

Manmade Resources: Buddhist Resources: Lumbni Bodhgaya, Sarnath, Kushinagar, Sanchi, Ajanta & Ellora; Hindu Resources 4 Dhams- Badrinath, Remeshwaram, Puri, Dwarika, 12 Jyotirlingas, Temples- Durgiana Mandir, Ramthirte, Khajurao (Kandhariya Mahadev), Ellora (Kailashnath), Bhuvaneshwar, Temfor (Brihadeshwar), Gauhati (Kamakhya); Sikh: Anandpur sahib , Harminder Sahib(Golden Temple), Nanded, Patna Saheb; Islamic- ajmer (Khwaja Moinudin Chisti), Delhi (Hazrat Nizamuddin aulia); (Historical Churches), Jain, Temples; Museums, Art Galleries, Amusement Parks.

Socio-Cultural Resources: Fairs & festivals, rituals and ceremonies, events celebrations- beauty contests, musical concerts, trade shows, car rallies, cycle rallies, legends and haats: Dances: Musical nstruments of India, Performing arts: Regional gastronomy; shopping- handicrafts and souvenirs.

**PAPER III: TOURISM RESOURCES
PRACTICAL AND PROJECT WORK**

Time: 3 hrs**SEMESTER - I****Marks: 25**

- 1) Preparation of handouts on tourism zones as specified by WTO, IATA, Geography, PATA areas, tourist generating regions to India and preferred tourist destinations.
- 2) To draw charts on tourism systems interrelating tourism market, transportation, destinations and marketing in the context of India's popular tourism states like Rajasthan, Himachal, Goa and Kerala
- 3) To prepare report on the nature and characteristics of business and social tourists in context of their arrival in metros and pilgrimage destinations and to make their presentation.

Time: 3 hrs**SEMESTER - II****Marks: 50**

- 4) To draw map of India and locate major tourist destinations and adjoining tourism market.
- 5) To identify tourist motivation of visitors, make a survey of 10 tourists, visiting a tourist destination and prepare a report.
- 6) Study tours to local tourist organization – tourist offices, regional tourist offices, Directorate of Tourism, etc. to analyze their strengths and weaknesses in attracting and serving tourists.

(v) OFFICE MANAGEMENT

**PAPER I: OFFICE PROCEDURE & PRACTICE –I
THEORY**

Time: 2 hrs**SEMESTER – I****Marks: 30**
Int. Ass./CCE: 10
Total Marks: 40**UNIT-1: General introduction to an office**

Meaning, Importance, Functions, Departments in office, Office Manager- Role, Duties and Qualities.

UNIT-2: Office organization

Meaning, Principles, Centralization and Decentralization of Office Services. Organizational Charts- Contents, types, advantages and disadvantages.

Unit-3: Office Accommodation and Layout

Office accommodation, Qualities of Office Building Layout- Principles, Steps in Designing Office Layout, Types of Layout, Open Office vs Private Office.

Unit-4: Office Environment

Meaning, Importance, Lighting, Temperature, Humidity, Ventilation, Noise, Interior Decoration, Cleanliness, Security and Secrecy.

Time: 2 hrs**SEMESTER – II****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****UNIT-5: Handling Correspondence and Mail**

Meaning and Importance of correspondence, handling correspondence, external and internal correspondence. Meaning and importance of mail, Centralization and Decentralization of mail handling. Procedure of handling inward and outward mail. Mail room equipment.

UNIT-6: Postal Information

Services rendered by post and telegraph Department- Letters, registered Letters, Insured letters, packets , and Parcels, Business reply cards, envelopes etc.
Recorded Delivery Service- Certificate of Posting, Value Payable Post, Book post and remittance.
Speed Post and Courier Services. Telegrams- types.
Miscellaneous Services- Post Box, Post Bag, Identification Cards, Postal rates. Use of post office guide.

UNIT-7: Record Management and Filing

Importance of records, Classification , Purpose – Principles of Record keeping, Filing- Importance, advantages, essentials of a good filing system, Filing routine, Classifications of files- Alphabetical, Numerical, Alphanumerical, Geographical, Chronological, Subject wise etc Centralized Filing, Methods of filing- old and new.

UNIT-8: Indexing

Meaning, essential of a good indexing system, advantages, types. Visible indexing vs Blind Indexing.

UNIT-9: Noting and Note Sheet Writing

Meaning of Noting and note sheet, Need, Points to be kept in mind while writing on note sheet, submission of a note sheet, preservation of a note sheet.

**PAPER-I: OFFICE PROCEDURE & PRACTICE –I
PRACTICAL AND PROJECT WORK**

Time: 3 hrs**SEMESTER - I****Marks: 25****UNIT-1: Office Accommodation and Layout**

Use of templates on blue prints of office buildings

UNIT-2: Office Environment

Visit an office to study the lighting arrangements, Ventilation, Interior Decoration, Cleanliness, Safety, security and prepare a report.

PRACTICAL AND PROJECT WORK

Time: 3 hrs**SEMESTER - II****Marks: 50****UNIT-3: Handling Correspondence and Mail**

Practice of recording inward/outward mail
 Use of letter opener
 Use of time and date stamps.
 Receiving and sorting mail- department wise.
 Preparation of envelopes
 Preparation of inward mail diary
 Practice on:
 Punching and stapling machine
 Folding machine
 Sealing machine
 Addressing machine
 Franking Machine
 Weighing and stamping
 Entering in despatch book
 Practice of wrapping and packing

UNIT-4: Postal Information

Use of post office guide

UNIT-5: Record management and Filing

Preparing a folder
 Inserting note sheet and letters in the file
 Preparing a guide for files.
 Placing of files according to different classification
 Searching the required file.
 Placement of out guides of files in racks and cabinet.
 Cross referencing of files.
 Operating micro film equipment.

UNIT-6: Indexing

Preparing a book index for all the equipment and material kept in an office.
 Preparing loose leaf index.
 Preparing cards for card index with suitable guide cards.
 Preparing visible card index
 Preparing strip index

UNIT-7: Noting and Note Sheet Writing

Noting Submission of a note.

PAPER II: ELEMENTS OF ACCOUNTING THEORY

Time: 2 hrs

SEMESTER – I

Marks: 30
Int. Ass./CCE: 10
Total Marks: 40

UNIT-1: Recording Transactions

- a) Accounting- definition, functions and importance. Role of an accountant.
- b) Key accounting terms- transaction, voucher, debit, credit, accounting equation, assets, liabilities, capital, profit, expenditure, stock, depreciation.
- c) Types of accounts – personal, real, nominal. Recording of transactions.
- d) Rule of double entry accounting vouchers- debit, credit and transfer vouchers.
- e) Capital and revenue receipt and expenditure.

UNIT-2: Accounting Procedure

- a) Day book and its utility. Types of transactions recorded in a day book
- b) Types of day books- accounting and supporting vouchers, posting of vouchers in a day book.
- c) Ledger- need and format, posting of transaction from day book to ledger.
- d) Balancing of day book and accounts- meaning of debit and credit balances.
- e) Trial Balance- Concept, Need and methods.
- f) Arithmetical accuracy of ledger accounts.
- g) Nature of errors not disclosed in a trial balance.

Time: 2 hrs**SEMESTER – II****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****UNIT-3: End of Period Accounts**

- a) Trading account- gross profit/ gross loss: profit and loss account net profit/ net loss
- b) Assets, Capital and liabilities , Preparation of final accounts.

UNIT-4: Bank Transactions and Negotiable Instruments

- a) Bank- services offered by bank to a business firm, Types of bank accounts- current, savings and fixed deposit accounts, pass book
- b) Cheque- nature and type, crossing and endorsement, dishonour of a cheque.
- c) Bank reconciliation statement- meaning, need, reasons for difference in the balance of cash book and pass book, preparation of bank reconciliation statement.
- d) Bill of Exchange- Parties, acceptance, discounting, endorsement, dishonour, noting, Promissory note/ Hundi (elementary introduction)

**PAPER II: ELEMENTS OF ACCOUNTING
PRACTICAL AND PROJECT WORK**

Time: 3 hrs**SEMESTER - I****Marks: 25****UNIT:-1 Recording Transactions**

Preparation of basic vouchers such as cash memos, receipts, bills, invoices, debit notes and credit notes.

UNIT:-2 Accounting Procedure

Preparation of a day book
Use of ledger, Posting of transactions recorded in vouchers to ledgers.
Preparation of a trial balance

**PRACTICAL AND PROJECT WORK
SEMESTER - II**

Time: 3 hrs**SEMESTER - II****Marks: 50****UNIT-3: End of Period Accounts**

Preparation of a final account.

UNIT-4: Bank Transactions and Negotiable Instruments

Drawing cheque, various types of crossings on a cheque.
Pay-in- Slip, Demand Draft, Bankers cheque.
Various endorsements of cheque/ demand draft.
Preparation of transaction on dishonouring of a cheque.
Preparation of cash receipts- bills of credit.
Preparation of T.A Bills- Wages and salary Bill.
Preparation of Bank reconciliation statement from given practice sets.

**PAPER III: TYPEWRITING (ENGLISH)
THEORY
SEMESTER – I**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

UNIT-1: Typewriter and its Maintenance

Typewriter, its use and importance. A standard typewriter.
Makes and categories of typewriters.
Essential Parts of a typewriter and its use.
Care and upkeep of a typewriter.
Ribbon Changes and ribbon economy.

UNIT-2: Method of Typewriting

Touch
Sight
Horizontal and vertical approaches.

Time: 2 hrs

SEMESTER – II

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

UNIT-3: Key Board operation

Need of proper type and size of table and chair for use of typist.
Sitting Posture.
Insertion and removal of a paper
Learning the second row (Home row)
Guide keys and home keys.
Learning the third row (upper row)
Learning the first row (bottom row)
Learning the fourth row (number row)
Special signs and symbols in the key board and its use

UNIT-4: Display in Typewriting

Centering –Horizontal, Vertical Spaced.
Types of headings.
Margin and line spacing
Use of punctuation marks
Figures- Arabic and Roman
Paragraphs types and styles, numbering, pagination, simple letters, how to type.

**PAPER III: TYPEWRITING (ENGLISH)-1
PRACTICAL AND PROJECT WORK**

Time: 3 hrs

SEMESTER - I

Marks: 25

UNIT-1: Key Board operations

- 1) Practicing second row, third row, first row and fourth row,.
- 2) Practicing words, sentences, paragraphs and passages.
- 3) Use of shift keys and other non- character keys.
- 4) Typewriting of special symbols of the key board and other punctuation marks.

UNIT-2: Speed Building

- 1) Different kinds of Drills for typing
- 2) Graded speed test leading to accurate speed of about 15 word per minute.
- 3) Typing of passages each containing 150 words in ten minutes

**PRACTICAL AND PROJECT WORK
SEMESTER - II**

Time: 3 hrs

Marks: 50

UNIT-3: Display techniques

- 1) Centering- Horizontal vertical spaces.
- 2) Ensuring proper margins, line spacing
- 3) Typing different types of headings.

UNIT-4: Letter Typing

- 1) Typing exercise of personal, official and business letters in different styles with proper display.
- 2) Typing of applications for a job
- 3) Using carbon paper for taking out multiple copies
- 4) Envelope addressing

(vi) BANKING

**PAPER I: ELEMENTS OF BANKING AND BOOK KEEPING
THEORY**

Time: 2 hrs

SEMESTER - I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Introduction: Meaning and definition of banking; Functions of commercial banks, Role of banks in economic and social development, role and functions of reserve bank of India. Recent trends in Indian commercial banking under financial sector reforms.

Lead Banks Scheme: Lead banks Scheme, District credit and action plans, service area approach, rural banking, promotion of mutual funds and merchant banking

Time: 2 hrs

SEMESTER - II

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

Bank and the customer: Bank-Customer relationships, need for improved service, customers rights and obligations, customer services offered by banks, banks and consumers protection act.

Elements of book keeping : Accounting- meaning and objectives, important basic accounting terms, kinds of accounts, recording transactions , writing the ledgers, balancing ledger accounts, day books, trial balance, final accounts, profit and loss account and balance sheet, tallying the accounts and Banks Reconciliation Statement. Book keeping system in banks.

**PAPER -I: ELEMENTS OF BANKING AND BOOK KEEPING
PRACTICAL AND PROJECT WORK**

Time: 3 hrs

SEMESTER - I

Marks: 25

- Visit to a bank branch and observing functions of various departments in a bank.
- Preparation of action plan/village plan under LBS.

PRACTICAL AND PROJECT WORK

Time: 3 hrs

SEMESTER - II

Marks: 50

- Discussion and practical problems on banker- customer relationship such as Bailor- Bailee, Creditor- Debtor, pledger- pledgee etc., bankers right and obligations.
- Accounting- Journalizing, writing day book with the help of vouchers, posting them into ledgers, balancing the accounts, preparing trial balance, profit and loss accounts, balance sheet, bank reconciliation statement, tallying of account.

Note: It is suggested that the students may be taken to a bank branch so that they get an idea of the different books used in the bank and the way they are written, after that the students may practice in the dummy bank.

PAPER II: DEPOSIT ACCOUNTS

THEORY

Time: 2 hrs

SEMESTER - I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Deposits General : Meaning, features, types of deposit accounts- demand and time, savings, term, recurring and current account, deposit mobilization and its importance, concept of marketing, change of operational instructions.

Savings Bank account: Meaning, importance, opening a savings bank account- savings account for different types of customers, individual/ single account, joint account, minors account, account for illiterates, accounts for non- trading concerns, closing of an account, settlement of balance in deceased's account, calculation of interest.

Time: 2 hrs

SEMESTER - II

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

Current deposit account: Meaning, importance, opening a current account, operation of the account, current accounts for different types of customers; individuals, joint, sole preparatory, partnership firms, private and public limited companies, societies, trust accounts, club accounts etc. Miscellaneous instructions, transfer and closing of accounts, service charges.

Term deposit account: Meaning, features, short/long, periodical/re-investment schemes, one time/recurring deposit procedure, form, opening fixed deposit account, rates of interest, calculating of interest, payment on due date, renewal of deposit account, payment before due date, transferring of term deposit account. Loss of term deposit receipt and procedure for duplicate issue, periodical balancing of term deposit registers/ledgers, interest provisions.

Recurring Deposit account: Meaning and advantages of recurring deposit, entries in books of accounts, calculation of interest, RD amounts payable after various terms, interest structure and recent trends.

PAPER II : DEPOSIT ACCOUNTS

PRACTICAL AND PROJECT WORK

Time: 3 hrs

SEMESTER - I

Marks: 25

Types of Deposit: By means of group discussion/ over a Branch Counter or Dummy bank students may be trained in opening of different types of accounts, counter clerks, other students to suggest different types of deposit accounts/ schemes to suit the needs of different types of depositors. Exercises on distinguishing demand and time deposits, market for deposits and plans for Marketing of deposits.

Savings Bank Account: Account opening forms, how to fill in, specimen signature cards, preparation of pay-in- slips, entries in scroll cash book, pass book, register, SB ledger and SB supplementary, scrutiny of cheque requisition forms, issuing of cheque books, entries in cheque book issue register, withdrawal forms, minors declaration forms, payment of cheque/withdrawals, entries in SB ledgers and periodicals, balancing, payment scrolls, cash payment books, cheque returning memos, entries in cheque retiring register, stop payment instruments, their records in ledgers and registers, posting of clearing vouchers/ cheque, calculation of half yearly products and interest, interest sheet preparation, posting of vouchers for interests, posting in ledger accounts for

interest, closing of accounts, entries in pass books, index books, transferring an account from one branch to another and settlement of claims in deceased's account.

PRACTICAL AND PROJECT WORK

Time: 3 hrs

SEMESTER - II

Marks: 50

Current Deposit account: Filling in of account opening forms and pay in slip for different types of depositors particularly partnership firms and companies, pay-in-slips, cheque books, loose leaf/bond ledgers and entries therein, issue of periodical statement/pass book, stop payment instruction- recording in respective ledger/registers, dealing with cash/ clearing/ transfer debit/credit vouchers, entries in ledgers and periodical balancing, calculation and posting of service charges, deceased account, change of accounts, change of constitution of account holders particularly partnerships firms and companies, recording of mandate letters and power of attorney in respective registers.

Term Deposit Accounts: Filling up of account opening forms for various types of TD accounts, (fixed/short deposit account and various re-investment scheme account) and opening such account in respective ledgers. Exercises on rates of interest, calculation of due dates. Maintaining of term deposit registers and ledgers, posting of vouchers, filling up of pay-in-slips, withdrawal forms (if any), issue of term deposit receipts, encashment on due dates/renewal for further periods, encashment before maturity (due date), practical on action to be taken on loss of TDRS, issue of duplicate TDR, payment of balance in deceased accounts. Exercise on change of joint names, transfer of TDRS from one branch to another, handling over due accounts, addition and deletion of names.

Recurring Deposit Account: Filling of account opening form, filling of pay-in-slip and withdrawal forms. Exercises on use of reckoner for interest calculation, entries in registers/ledgers periodical balancing, issue of pass books, loss of pass books, duplicate pass books, handling overdue accounts, recovery of charges/interests on late installment payments, payment of balance in deceased's accounts.

Paper – III: HOUSE KEEPING IN BANKS

THEORY

Time: 2 hrs

SEMESTER – I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

House Keeping: Meaning, objectives, application of Double Entry System of Book keeping to bank transactions. Vouchers – Importance and its preparation, various types of transactions – Cash Receipts / Payments and currency chests, Clearing outward/inward and clearing house, Transfer vouchers and Transfer scroll. Various books of accounts maintained in the banks, day to day transactions, records thereof, writing of subsidiaries/supplementary books, day book, general ledger and general ledger balance book, periodical balancing of accounts, tallying of various accounts, control mechanism and preventive measures for good house keeping, rotation of duties, checking and double checking. Dual control aspect for cash and sensitive items of stationery.

Negotiable Instruments and relevant Acts: Meaning and kinds of cheque, bill of exchange, promissory note, hundies, bank drafts, endorsements, crossing, payment of cheque precautions/rotation to collecting/paying banker, stop payment instructions, legal position regarding payments, dishonor of cheque, forged cheque, different types of bills collection/payment, calculation of due dates and disposal of unpaid bills. Statement of inter branch transactions-Branch Daily Statement.

Time: 2 hrs**SEMESTER – II****Marks: 30**
Int. Ass./CCE: 15
Total Marks: 45

Establishment work: Salary, leave, medical bills, travelling expenses/allowances bill, calculation of Income-Tax, perquisites, maintenance of staff record/staff files. Branch accounts with other banks viz. RBI/SBI – maintenance procedure, entries, periodical reconciliation.

Branch Premises: Owned/rented-expenses on maintenance. Accounting procedure, Branch up keep and cleanliness.

Furniture and fixtures and other fixed assets: Acquisition, tender system, records, numbering and periodical balancing. System of disposal/write off of furniture and fixtures.

Stationery: Objectives, proper records, purchase, maintenance of records. Time duration for maintenance of various files/records.

PAPER-III: HOUSE KEEPING IN BANKS
PRACTICAL AND PROJECT WORK

Time: 3 hrs**SEMESTER - I****Marks: 25**

House Keeping: Sorting of vouchers according to ledger/departments and also to observe that vouchers are passed by the authorized officers, see that vouchers are branded with the appropriate stamp, enter all the vouchers in related subsidiary books, writing the total number and signature, totaling all the subsidiary/day books, tallying the same with the day book, posting in general ledger. Periodical balancing of accounts.

Preparation of Vouchers: Scrutiny of vouchers, posting of debit and credit vouchers, preparation of vouchers relating to debit entries for receiving cash/cheques, preparing vouchers for receiving/paying cash, preparation of transfer vouchers, reversing an entry or a voucher and clearing vouchers.

Handling Cash: Practising procedure followed in the cash department of a bank for receiving cash, various steps, counting the notes carefully and quickly, sorting out the notes denomination wise in packets, counting the coins and sorting out denomination wise, examining and ensuring that they are genuine, signing the pay-in-slip form and affix cash received date stamp, preparation of cashiers receipt scroll, preparing packets of 100 pieces of notes and tallying the total number of receipt and payment vouchers with the cash book.

Clearing: Receiving outstation cheques and entering in the clearing register, stamping the cheques and sorting them bankwise, preparing schedule for each bank and general summary, exchanging the cheques in clearing house, preparing adjustment vouchers, entering the clearing register and balancing.

Negotiable Instruments: Practical exercises on cheques, bill of exchange and draft, crossing, endorsement, discounting, clean and documentary bills, collection of bills. Forwarding the bill from one branch to another, entry in the registers, passing related vouchers, endorsing the documents (Bill of exchange, RR, MTR, invoices, insurance policy etc.) obtaining acknowledgement, remit proceeds to the forwarding branch, calculation of the due dates, disposal of unpaid bills.

**PRACTICAL AND PROJECT WORK
SEMESTER - II**

Time: 3 hrs**Marks: 50**

Establishment: Different cases of scrutiny of salary payments, maintenance of leave records, scrutiny of calculation of income tax, perquisite value, medical bills, travelling expenses etc.

Branch account with other Banks: One categorical practical to be given giving the details of operation of account with RBI/SBI for a month to include all types of transactions including remittance of funds, receipt of funds, collection of cheques, issue of cheques and students to write in branch account and also in the RBI/SBI books and prepare a reconciliation statement.

For other activities necessary practical for passing vouchers, entries in register/ledger be given. Preparation of Branch Daily Statement.

Preparation of vouchers for payment of certain revenue expenditures and recording thereof in profit and loss analysis book.

Preparation of vouchers for payment of capital expenditure and recording thereof in furniture and fixture ledgers.

**(vii) GENERAL RECEPTIONIST
PAPER – I: RECEPTION
THEORY
SEMESTER – I**

Time: 2 hrs**Marks: 30****Int. Ass./CCE: 10****Total Marks: 40****Unit -1: Reception**

Meaning – Definition – Importance of Reception – Need of a Receptionist – Reception in Commercial and Non-Commercial Organisations – Front office procedure for emergencies.

Unit – 2: Reception Office Lay-out

Layout of a Reception Counter – Factors to be considered for Layout organization of Reception Office.

Time: 2 hrs**SEMESTER – II****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****Unit – 3: Receptionist**

Qualities of a Receptionist-Duties and responsibilities-Public relations- Co-ordination with other departments-Front office Salesmanship in Commercial Organisation.

Unit – 4: Reception Office Personnel

Front office personnel working in reception division of commercial and non-commercial organisations-Role, duties and responsibilities-Front Office Assistant-Front Office consists Lobby-Bell boy-Bell captain.

Unit – 5: Introduction to Travel Tourism and Hotel

Tour and Travel Agency information-Awareness of the tourist spot-Role of Airline in the Tourism Industry; Role and functions of a travel agent-Information about Hotel-Categories of Hotels – Reservation – Safety locker management handling left luggage.

**PAPER – I: RECEPTION
PRACTICAL AND PROJECT WORK
SEMESTER - I**

Time: 3 hrs**Marks: 25****Unit – 1**

Visiting receptionist division of a commercial and non-commercial organization and list out the role of Receptionist in these organization.

Unit – 2

Submit a report on the lay-out of the reception office of commercial and non-commercial organisation and their strength and weakness with a sketch.

PRACTICAL AND PROJECT WORK**Time: 3 hrs****SEMESTER - II****Marks: 50****Unit – 3**

Arrange a role-play of receptionist in the class-room.

Unit – 4

Visit to a Star Hotel and Travel and Tourism Organization- List out the various personnel working in the reception division, their duties and responsibility, and submit a report.

Unit – 5

Visit to a travel & tourism and hotel and collect various registers and forms used in reception (Registration Card, Arrival and Departure Register, Guest History Cards, Key Cards, Rack Slips, Log Book etc.)-Collect information from nearest city about Hotels and categorise them according to location, no. of rooms, type of plan and facilities offered etc.

PAPER – II: OFFICE PRACTICE AND PROCEDURE**THEORY****Time: 2 hrs****SEMESTER – I****Marks: 30****Int. Ass./CCE: 10****Total Marks: 40****Unit – 1: Introduction to an Office**

Meaning – Importance and functions – Location and layout of an office – Principles - Physical condition – Office environments and its importance – Various sections in a Modern Office – Factors to be considered in buying office premises and furniture.

Unit – 2: Office Organization

Meaning-Different types-Organization structure- Principles of organization-Delegation of authority-Importance and principles of delegation-Office Manuals-Meaning-Need- Types-Advantages and disadvantages of using office manuals-Techniques of improvement- Work chart- Work control-Quality control- Work checking-Time scheduling-Work simplification and own technique.

Unit – 3: Handling Mail, Filing and Indexing

Procedure for handling incoming and outgoing mail-Essential requirements for a good system of dealing with stationery. Meaning and importance essentials of filing-Essentials of a good filing system-Classification and methods of filing-Indexing-Meaning-Need-Variety types.

Time: 2 hrs**SEMESTER – II****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****Unit – 4: Office Equipments and Machines**

Meaning and importance- Various equipments and machines used in a Modern Office Copies-Photocopying-Addressing Machine; Adding and calculating machines; Accounting machine, Electronic typewriter, Word processor, Modern Telephone, Fax, Computer with Printer and Scanner, Computer Hardware(Basics) and Software(Ms-Office: Ms-word, Ms- Excel, Ms-PowerPoint).

Unit – 5: Noting, Note sheet writing, Reports and Minutes

Noting-purpose salient features-procedure-limitation-Report-Minutes-Kinds of minute-importance-qualities of writing report-form of a report-techniques of reports writing.

Unit – 6: Stationary control

Stock control-stock taking-techniques of inventory and stock control-stationary control.

**PAPER – II: OFFICE PRACTICE AND PROCEDURE
PRACTICAL AND PROJECT WORK**

Time: 3 hrs**SEMESTER - I****Marks: 25****Unit – 1**

Visiting to the nearest Modern office and to draw the layout of their office with various section and followed by the group discussion.

Unit – 2

Based on visit, draw an organizational chart of commercial and non-commercial organization and list out various office manuals and work chart used in their organization and discuss in the group.

Unit – 3

Filling up of various proformas of incoming and outgoing mail, record etc. Demonstrating the procedure of opening, stamping, entering, sorting the mail and various types of files, filing cabinets, indexing, in a Modern Office under the supervision of professionals.

PRACTICAL AND PROJECT WORK

Time: 3 hrs**SEMESTER - II****Marks: 50****Unit – 4**

Practice with the modern equipments and machines used in the collaborating institutions. Practical Knowledge of Ms-Office (Ms-word, Ms- Excel, Ms-PowerPoint), Knowledge of opening & editing files in Ms-Office.

Unit – 5

Practising to draft different notes sheets, in different occasions-organising meeting report thereon under the supervision of professionals.

Unit – 6

Practising stock taking, inventory in the institution under the supervision of professionals.

**PAPER – III: TYPEWRITING
THEORY**

Time: 2 hrs**SEMESTER – I****Marks: 30****Int. Ass./CCE: 10****Total Marks: 40****Unit – 1: Introduction to Typewriter**

Typewriter – Its use and importance – Sizes of typewriter-Makes and categories-Operative parts and their uses-Maintenance-Ribbon Changing –Ribbon economy-Methods and approaches of leave key board.

Unit – 2: Key Board operation and Practice

Position of typist, typewriting-Material to be typed-Insertion of paper-Space arrangement-Shift Keys-Special signs and symbols-Centering-Method of centering-Spacing- Punctuation marks-Techniques of paragraphing-Arabic and Roman-Syllabification- Foot notes-Carbon copying-Assembling and removal of carbon paper-Stencil cutting and correction.

Time: 2 hrs**SEMESTER – II****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****Unit – 3: Proof-reading Symbols**

Introduction to special signs and symbols and proof- Types of Proof-Methods-Manuscript awareness.

Unit – 4: Speed Building

Speed drills – Types of speed drill-Stocking pattern-Speed building procedure-typing from news papers, books and journals – Typing various business letters, correlated draft and manuscript paper-Filling receipt and vouchers, agenda minutes, memoranda and invoices, account sales and balance-sheet.

Unit – 5: Tabular Building

Table-Vertical and horizontal placement-Column headings- Tabulation styles –Methods of vertical ruling.

PAPER – III: TYPEWRITING PRACTICAL AND PROJECT WORK

Time: 3 hrs

SEMESTER - I

Marks: 25

Unit – 1

Operation of key board-Practising upper, bottom and number row-Practising chief operative parts, special signs.

Unit – 2

Practising to type on envelopes-Using cylinder knob adjustments etc. – Practising stencil cutting-Filling up the blanks forms-Space and words adjustment etc. –Typing business and official correspondence, envelope addressing, telegram.

PRACTICAL AND PROJECT WORK SEMESTER - II

Time: 3 hrs

SEMESTER - II

Marks: 50

Unit – 3

Removing and replacement of ribbon-Up and down movement of the ribbon-Length-wise feeding of ribbon-Troubles-Remedy-Cleaning and oiling the typewriter-Trouble shooting-Jerky movement of carriage-Causes, Remedy-Demonstration on carriage-Draw-cord-etc. –Step-by-step movement of the carriage-Bell ringing mechanism-Marginal stop mechanism.

Unit – 4

Dog block mechanism-Functions of Loose-dog and Rigid-dog-Troubles-Remedy.

(viii) MARKETING AND SALESMANSHIP PRINCIPLES OF MANAGEMENT

PAPER-I

Time:2 hrs

THEORY

SEMESTER - I

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Management: meaning, features, objectives, functions of management and principles.

Planning: meaning, features, importance, advantages and limitations.

Organization: meaning, features, objectives, principles, formal and informal organization.

SEMESTER-II

Time:2 hrs

THEORY

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

Elegation: meaning, principles, responsibility, accountability, centralization and decentralization,

Staffing: meaning, Human Resource Management, recruitment, training, wagepayment.

Directing: meaning, supervision and Communicate,

Controlling: meaning, features, importance, limitation.

Time:3 hrs

**PRACTICAL
SYLLABUS
SEMESTER-I**

Marks: 25

Preparation of organizational structure of a firm/company/business house located in your vicinity

Time:3 hrs

**PRACTICAL
SYLLABUS
SEMESTER-II**

Marks: 50

Study of method of recruitment, staffing pattern and method of wage payment, copy, viva, Project reports.

PAPER-II

**MARKETING MANAGEMENT
SEMESTER-I**

Time:2 hrs

THEORY

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Marketing: meaning, objectives, importance and advantages of marketing,

Marketing mix: meaning and elements of marketing mix

**SEMESTER-II
THEORY**

Time:2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

Product Planning: meaning, product life cycle

Pricing: meaning of price, importance, pricing policies and strategies

Channel of Distribution: meaning, classification of channels

Time:3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

Project Enlisting of products of daily use by consumers/traders in local market of your locality

Time:3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

(i) To study the product life cycle of any two products

(ii) To study the distribution channels of any two products

PAPER-III

**SALESMANSHIP
SYLLABUS**

Time:2 hrs

**SEMESTER-I
THEORY**

Marks: 30

Int. Ass./CCE: 10

Total Marks: 40

Salesman ship: meaning, features, importance, Personal selling and salesmanship, importance of salesmanship, qualities of a good salesman

Product: Classification of products , Branding, Packaging and labelling.

**SEMESTER-II
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Advertising and sales promotion: meaning, objectives, functions.

Advertisers: danger of advertising, types of advertising, advertising media, advertising agency, functions of advertising agency, preparation of an advertisement.

Sales promotion: meaning, objectives of sales promotion, methods of sales promotion.

Consumer Protection: meaning, consumer rights, ways of consumer protection, redressal machinery under the act

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time:3 hrs

Marks: 25

Survey the products which are sold door to door or in your street through Personal Selling and describe the various pros and cons from by buyer and seller's point of view

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs

Marks: 50

Describe different methods of advertise of at least 5 products being sold in your local market

**(ix) RURAL MARKETING
PRINCIPLES OF MANAGEMENT
THEORY
SYLLABUS
SEMESTER-I**

PAPER-I

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Management: meaning, features, objectives, functions of management and principles

Planning: meaning, features, importance, advantages and limitations

Organization: meaning, features, objectives, principles, formal and informal organization

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Delegate: meaning, principles, responsibility, accountability, centralization and decentralization.

Staffing: meaning, Human Resource Management, recruiting, training and wage payment.

Directing: meaning, supervision and communication.

Controlling: meaning, features, importance and limitation.

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time:3 hrs**Marks: 25**

Preparation of organizational structure of a firm/company/business house located in your vicinity

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs**Marks: 50**

Study of method of recruitment, staffing pattern and method of wage payment, copy, viva, Project reports

PAPER-II

**MARKETING MANAGEMENT
SYLLABUS
SEMESTER-I
THEORY**

Time:2 hrs**Marks: 30****Int. Ass./CCE: 10****Total Marks: 40**

Marketing: meaning, objectives, importance and advantages of marketing

Marketing Mix: meaning and elements of marketing management

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs**Marks: 30****Int. Ass./CCE: 15****Total Marks: 45**

Rural Marketing: Marketable surplus, requirements for rural marketing, significance of rural marketing, ways of agriculture marketing, Problems of Agriculture Marketing, Measures to improve agriculture markets, Role of regulated and unregulated market, Procurement Policy. **Pricing Policy:** advantages of agriculture pricing policy, limitation of agricultural pricing policy, measures improve agricultural price policy.

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time:3 hrs**Marks: 25**

Project Enlisting of products of daily use by consumers/traders in local market of your locality

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs**Marks: 50**

(i) To survey the Agro product being sold in agriculture market and study the problems faced by buyers and sellers of agro products

(ii) To survey the regulated and unregulated agro Markets of your locality

PAPER-III

**SALESMANSHIP
SYLLABUS
SEMESTER-I
THEORY**

Time:2 hrs**Marks: 30****Int. Ass./CCE: 10****Total Marks: 40**

Salesmanship: meaning, features, importance, personal selling and salesmanship, importance of salesmanship, qualities of good salesman,

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Products: classification of products, Branding, Packaging and labels, Role of Mahila Mandals and self help groups in marketing, Role of marketing Board in marketing, Role of infrastructure in rural marketing, Barriers in the way of rural markets measures to overcome these barriers.

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time:3 hrs

Marks: 25

Survey the products which are sold door to door or in your street through Personal Selling and describe the various pros and causes from the buyer and seller's point of view

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs

Marks: 50

To prepare a project work on the working of self help group as Mahila Mandal

(x) TRANSPORT SERVICES

PAPER-I

INFRASTRUCTURE AND MODES OF TRANSPORT

**SYLLABUS
SEMESTER-I
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Infrastructure of Roads: types, construction, procedure, maintenance of roads,

Modes of Transports: Autos, taxicabs, Buses, Minibuses.

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Modes of Transports: crisis management during accidents, recovery van and relief van

Motor Vehicle Act 1936.

Insurance: third party, fire and accidental policy and insurance of passengers.

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time:3 hrs

Marks: 25

To survey the various roads in relation to their maintenance status within the radius of 5Km of your school.

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs

Marks: 50

To study the crisis management infrastructure in your locality, availability of recovery Van, its connectivity and cost in your locality.

PAPER-II**TRANSPORT MANAGEMENT
SYLLABUS
SEMESTER-I
THEORY****Time:2 hrs****Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

i. Application of management: principles, time management, resource management, manpower management, inventory management, cost benefit analysis.

ii. Time Table & Routes: management of Rain & Sun Shelter;

iii. Signs and Symbols of Transport.

**SYLLABUS
SEMESTER-II
THEORY****Time:2 hrs****Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

i. Training of Drivers & conductors, Recruitment and selection procedure.

ii. Calculation of fares. Road safety measures.

iii. Traffic lights and roundabouts.

**SYLLABUS
SEMESTER-I
PRACTICAL****Time:3 hrs****Marks: 25**

The students are required to study the cost benefit analysis of any mode of transport (autos, minibuses, van, taxicabs and rickshaws).

**SYLLABUS
SEMESTER-II
PRACTICAL****Time:3 hrs****Marks: 50**

To study status of road safety measures in your locality in relation to Zebra crossing, Speed braker, traffic lights, roundabouts, placement of various road safety signs and identification of accident prone area in your locality and suggest various precautionary measures.

PAPER-III**ICT IN TRASPORT INDUSTRY-I
SYLLABUS
SEMESTER-I
THEORY****Time:2 hrs****Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Fundamentals of Computer

Memory

Input, Output, Data Storage Devices

Hardware and Software

**SYLLABUS
SEMESTER-II
THEORY****Time: 2 hrs****Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Modernization of Office

Meaning and Relevance of Office, Automation Office Machines; Type Writer, telephone, fax,

Computer, Scanner, printer,

MS Office (MS Word and MS Excel)

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time: 3 hrs**Marks: 25**

Practical Knowledge regarding basics of Computer, Checking the connectivity, starting up Computer System.

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time: 3 hrs**Marks: 50**

Operation of scanner & Printer.
Creating, editing, formatting MS documents
Creating tables in MS Word
Creating, Editing and formatting worksheets in MS Excel.

**(xi) BASIC FINANCIAL SERVICES
ACCOUNTING FOR BUSINESS**

PAPER-I:

**SYLLABUS
SEMESTER-I
THEORY**

Time:2 hrs**Marks: 30****Int. Ass./CCE: 10****Total Marks: 40**

Accounting: meaning and objectives, important, basic accounting terms, kinds of accounts, recording transactions, writing the ledgers.

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs**Marks: 30****Int. Ass./CCE: 15****Total Marks: 45**

Accounting: balancing ledger accounts, day books, trial balance, final accounts, profit and loss account and balance sheet, tallying the accounts and Bank Reconciliation statement, Bookkeeping system in banks.

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time:3 hrs**Marks: 25****PROJECT WORK:**

1. The syllabus of project work is same as prescribed for the theory of semester – I.
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:	5 Marks
Three questions (with internal choice)	15 Marks
	(5 Marks each)
Viva Voce	5 Marks

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs**Marks: 50****PROJECT WORK:**

1. The syllabus of project work is same as prescribed for the theory of semester – 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: | 10 Marks |
| Three questions (with internal choice) | 30 Marks |
| | (10 Marks each) |
| Viva Voce | 10 Marks |

PAPER-II:**INTRODUCTION TO FINANCIAL MARKET**

**SYLLABUS
SEMESTER-I
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Financial Management: meaning, objectives, functions.**Financial Planning:** importance, objectives, capital structure, fixed and working;**Capital Market & Money Markets:** capital market meaning, elements, nature, function..

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Capital Market & Money Markets: primary market, secondary market, financial institution, Money market; constituents, functions, security Exchange Board of India(SEBI); objectives of SEBI, Functions of SEBI;**Stock Exchange:** meaning, function, listing of securities, Procedure for dealing as stock exchange operators at stock exchange, national stock exchange, over the counter exchange of India.

**SYLLABUS
SEMETER-I
PRACTICAL**

Time:3 hrs**Marks: 25**

Enlisting of various firms providing financial services to your locality in relation to various services provided by them.

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time:3 hrs**Marks: 50**

To prepare a project report of a firm providing services of sale and purchase of shares.

PAPER-III:**COMPUTER APPLICATION IN FINANCIAL MARKETING**

**SYLLABUS
SEMESTER-II
THEORY**

Time:2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Information Technology: concept of information technology, fundamentals of computer, hardware concepts, memory system of computer, software concept.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Introduction to e-commerce
2. e-commerce in India
3. e-payment

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time: 3 hrs

Marks: 25

Computer Fundamental: Checking the connectivity, Peripherals of Computer, Booking of (Start up) the computer system.

Windows operation: using mouse, study of different manuals available in windows.

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time: 3 hrs

Marks: 50

Prepare a project report on various e-payment facilities available in various Banks in your locality

(xii) INSURANCE

PAPER-I: PRINCIPLES AND PRACTICES OF INSURANCE

**SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Origin: meaning of Insurance, Features of Insurance, Principles of Insurance, Functions of Insurance,

Various kinds of Insurance: Marine Insurance, Fire Insurance, Life Insurance;

Marine Insurance: meaning, features, Procedure for affective marine Insurance, various policies of Marine Insurance;

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Fire Insurance: Meaning, features, Procedure for affective Fire Insurance, various policies of Fire Insurance.

Life Insurance: meaning, features, Procedure for affective Life Insurance, various policies of Life Insurance.

Property Insurance: crop insurance, fire stock insurance, Burglary insurance, theft insurance and Baggage of Insurance.

Motor Vehicle Insurance

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time: 3 hrs

Marks: 25

The students are required to prepare a project report based on the survey of shopkeeper of your locality who have taken various types insurance policies. The report would include the motives & experiences of the policy holder.

**SYLLABUS
SEMESTER-II
PRACTICAL**

Time: 3 hrs**Marks: 50**

Prepare a report on the basis of experience of policy holder to have taken claims of an insurance policy.

PAPER-II:

**INSURANCE LEGISLATIONS
SYLLABUS
SEMESTER-I
THEORY**

Time: 2:30 hrs

**Marks: 45
Ins. Ass./CCE: 20
Total Marks: 65**

Indian Insurance Act 1938,

**SEMESTER-II
THEORY**

Time: 3 hrs

**Marks: 65
Ins. Ass./CCE: 30
Total Marks: 95**

Life Insurance Act 1956, Motor Vehicle Act 1939, Settlement Claim, Procedure for Settlement of Claim

PAPER-III:

**INSURANCE SALESMANSHIP
SYLLABUS
SEMESTER-I
THEORY**

Time: 2:30 hrs

**Marks: 45
Ins. Ass./CCE: 20
Total Marks: 65**

Salesmanship: definition, features, Objectives, Qualities of Insurance Agent, Selection of Agent, Training of Agent and Placement.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 3 hrs

**Marks: 65
Ins. Ass./CCE: 30
Total Marks: 95**

Development Officer: meaning, qualities, selection, training and placement.

Techniques: insurance salesmanship, Process of insurance salesmanship techniques of canvassing.

(xiii) TAXATION PRACTICE

**PAPER I: Elements of Book Keeping
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Basic Accounting**Terms:**

Asset, liability, Capital expense, income; expenditure, Revenue, Debtors, creditors, Goods, cost gain, stock, purchase, sales, loss, profit, voucher, discount, cash and trade discount, transaction, Drawings equity.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Kinds of Accounts:

Recoding transaction, writing of Ledger, balancing of ledger accounts, Day book, Trial balance, Preparation of final accounts, Profit and loss account,

balance sheet tallying the accounts and Bank Reconciliation statement.
Book keeping system in Banks, Depreciation- Provisions and Reserves.

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

1. Prepare a project report on the various books and ledgers maintained by a business house/institution in your locality.

Time: 3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

1. Visit to a bank branch and observe various functions of the bank and write a report on the same.
2. Prepare a project report on profit and loss and balance sheet of a business firm/institute in your locality.

**PAPER II: Principles of Management
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Management: meaning, Features and Objectives.

Functions of Management & Principles of Management

Planning: meaning, features, importance, advantages and limitations

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Organization: Meaning, features, Objectives, Principle, Formal and Informal Organization

Delegation: Meaning, Principles, Responsibility, Accountability, Centralization and decentralization.

Staffing: Meaning, Human Resource Management, Recruitment training, wage payments.

Directing: Meaning, Suspension and Communication

Controlling: Meaning, features, importance and limitations

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

1. Visit a business enterprise/institution and prepare a project report on the management of the enterprise.

Time: 3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

1. Visit a business house/firm/institution and prepare a project report on the salary structure of the institution.

**PAPER III: Fundamental of Income Tax
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

1. Fundamental Concepts and residential status.
2. Income under the head salaries and Income from house property.
3. Profits and gains of business or profession, Capital gains.
4. Income from other sources.
5. Income of other persons including assessee's total income.
6. Set off and carry forward of losses
7. Deductions to be made from gross total income

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Exemptions
2. Rebates from tax liability
3. Agricultural income.
4. Computation of tax liability of individuals.
5. Firms
6. Companies
7. Co-operative Societies
8. Return of Income
9. Tax deductions at Source and tax collection at source
10. Advance tax
11. Interest
12. Filing of Return.

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

1. Visit on Income Tax Office and prepare a project report on the working of various sections of Income Tax Office.

Time: 3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

1. Prepare a income statements of a person of your locality and compute their tax liability.

**(xiv) RURAL INFORMATICS MANAGEMENT
PAPER I: PRINCIPLES OF MANAGEMENT
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

1. Management: meaning, features and objectives,
2. Functions of management and principles of management.

3. Planning: meaning, features, importance, advantages and limitations.
4. Organization: meaning, features, objectives, Principles formal and informal organization.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Delegation: meaning, principles, responsibility, accountability, centralization and decentralization.
2. Staffing: meaning, human resource management, recruitment, Training, wage-payment.
3. Directing: meaning, supervision and communication
4. Controlling: meaning, features, importance and limitation.

**SYLLABUS
SEMESTER-I
PRACTICAL**

Time: 3 hrs

Marks: 25

1. Visit business enterprises/institutes and prepare a project report on the management of the enterprise.

**SEMESTER-II
PRACTICAL**

Time: 3 hrs

Marks: 50

1. Visit a business house / firm/ Institutes and prepare a project report on the salary structure of the institute.

PAPER II: Information Technology & e- Commerce

**SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Concept and scope of information technology,

Fundamentals of computer, Hardware concepts, Memory system of computer, Software concepts multimedia, fundamentals of internet, working with internet.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Introduction to e- commerce, e-commerce in India, e- payments, e- security, e- banking, e- trading and e- marketing.

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

Conduct a survey of your locality and prepare a project report of at least 5 persons who are using computer at home and enlist the various advantages of computer's to these person:

1. Logging into internet.
2. Navigation for seeking information
3. Searching information on internet
4. Sending and recovery E-mail.

Time: 3 hrs**RACTICAL
SEMESTER-II****Marks: 50**

1. On-line Purchasing.

Project Work: Open the website www.monster.com and register your resume over it. Open the site www.scholarshipsinindia.com makes a list of scholarships that are available in India and abroad.

**PAPER III: e-Governance
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

e- Governance: meaning, scope, e- Governance in developing countries, Delivery models of e – services, uses of e- governance, Empowerment rural communities, reducing costs and increasing revenue, Control of govt. expenditure, Growth of tax revenue.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Bhoomi computerization of land records, Gyandoot community owned rural internet kiosks
Card – computer aided registration of deeds
Voice- computerized service centers for panchyat.

Time: 3 hrs**PRACTICAL
SEMESTER-I****Marks: 25**

Visit a suvidha center in your area and prepare a list of various services available at that center and record views of at least 10 persons about the benefits and demerits of these centers.

Time: 3 hrs**PRACTICAL
SEMESTER-II****Marks: 50**

Visit a computerized office for land records and prepare a project report on its working and prepare a list and benefits available to general public.

**(xv) EXPORT IMPORT DOCUMENTATION
PAPER I: PRINCIPLES OF MANAGEMENT
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

1. Management: meaning, features and objectives,
2. Functions of management and principles of management.
3. Planning: meaning, features, importance, advantages and limitations.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Organization: meaning, features, importance, objectives, Principles, formal and informal organization.
2. Delegation: meaning, principles, responsibility, accountability, centralization and decentralization.
3. Staffing: meaning, human resource management, recruitment, training, wage payment.
4. Directing: meaning, supervision and communication
5. Controlling: meaning, features, importance and limitation.

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

1. Visit a business enterprise / Institution and prepare a project report on the management of the enterprise.

Time: 3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

1. Visit a business house/Firm/Institution and prepare a project report on the salary structure of the institution.

PAPER II: INFORMATION TECHNOLOGY & e- Commerce

**SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Concept and scope of information technology

Fundamentals of computer, Hardware concepts, Memory system of computer, Software concepts, multimedia, fundamentals of internet, working with internet.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Introduction to e- commerce, e-commerce in India, e- payments, e- security, e- banking, e- trading and e- marketing.

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

Conduct a Survey of your locality and prepare a project report of at least 5 persons who are using computers at home and enlist the various advantages of the computer to these people.

1. Logging into internet.
2. Navigation for seeking information
3. Searching information on Internet

4. Sending and receiving e-mail.

Time: 3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

1. Purchasing through Net.
2. Project work: Open the website www.monster.com and register your resume over it. Open the website www.scholarshipsinindia.com makes a list of scholarships that are available in India and abroad.

**PAPER III: EXPORT MANAGEMENT
SYLLABUS
SEMESTER-I
THEORY**

Time: 2:30 hrs

**Marks: 45
Int. Ass./CCE: 20
Total Marks: 65**

Exports – meaning: Foreign trade policy 2009-14, Potential items of export. Setting up on appropriate business organization, choosing appropriate mode of operation, naming the business, selecting the product, making effective business correspondence, selecting the overseas market. Selecting prospective overseas buyers, Selecting channels of distribution, Negotiating with prospective overseas buyers, Processing an export order and entering into export contracts.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 3 hrs

**Marks: 65
Int. Ass./CCE: 30
Total Marks: 95**

Registration with regional authorities of Director General of Foreign Trade. Registration with export promotion council commodity boards / Authorities.

Registration with value added tax authorities and central excise authorities, Obtaining permanent account number, export of samples, Gifts, Spares, Replacement and repaired goods. Appointing overseas agents.

Permission for the export license, Validity of export license, Revalidation of export license, Export by post and export through courier service, obtaining export credit insurance.

**(xvi) CO-OPERATION
PAPER I: ELEMENTS OF BOOK KEEPING
SYLLABUS
SEMESTER-I
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

Basic Accounting terms: Assets, Liability, Capital, Expense. Income, Expenditure, Revenue, debtors, Creditors, Goods, cost, gain, stock, purchase, sales, loss, profit, vouchers, Discount, Cash and trade discount, transaction, Drawing equity. Kinds of accounts, Recording transaction.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Writing of ledgers, balancing of ledger accounts, Day Book, Trial Balance, Preparation of final accounts, profit and loss account, balance sheet. Tallying the accounts and bank reconciliation statement, Book keeping system in bank. Depreciation provision and reserves.

Time: 3 hrs**PRACTICAL
SEMESTER-I****Marks: 25**

1. Prepare a project report on the various books and ledgers maintained by a business house / Institution in your locality.

Time: 3 hrs**PRACTICAL
SEMESTER-II****Marks: 50**

1. Visit a bank branch and observe a various function of the bank and write a report on the same.
2. Prepare a project report on profit and loss account and balance sheet of a business firm / institute in your locality.

**PAPER II: Management
SYLLABUS
SEMESTER-I
THEORY****Time: 2 hrs****Marks: 30
Int. Ass./CCE: 10
Total Marks: 40**

1. Management: meaning, features and objectives,
2. Functions of management and principles of management.
3. Planning: meaning, features, importance, advantages and limitations.

**SYLLABUS
SEMESTER-II
THEORY****Time: 2 hrs****Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Organization: meaning, features, importance, objectives, principles, formal and informal organization.
2. Delegation: meaning, principles, responsibility, accountability, centralization and decentralization.
3. Staffing: meaning, human resource management, Recruitment, Training, wage payment.
4. Directing: meaning, supervision and communication.
5. Controlling: meaning, features, Importance and limitation.

Time: 3 hrs**PRACTICAL
SEMESTER-I****Marks: 25**

1. Visit a business enterprise/Institution and prepare a project report on the management of the enterprise.

Time: 3 hrs**PRACTICAL
SEMESTER-II****Marks: 50**

1. Visit a business house / firm / institution and prepare a project report on the salary structure of the institution.

**PAPER III: COOPERATIVE MANAGEMENT
SYLLABUS
SEMESTER-I
THEORY****Time: 2 hrs****Marks: 30
Int. Ass./CCE: 10
Total Marks: 40****Co- Operation:** meaning, Features of Cooperative enterprises.**Cooperative:** a special form of business organization. Cooperative Principles. Objectives of cooperation.

Organization of cooperatives: Credit cooperatives, Classification of credit cooperatives, agricultural credit cooperative structure, Primary agriculture credit societies, Objects, memberships, Source of funds, Security rate of interest, repayment of loan, over dues, Crop loan, linking credit with marketing, distribution of profit. Multipurpose cooperative societies. Progress of the primary credit societies.

**SYLLABUS
SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

Central Cooperative Banks: need for central cooperative banks. Types of Central Cooperative Banks, their functions, Source of funds, management progress. State Cooperative banks, the constitution, Functions and objects.

Cooperative Land development Banks, Objectives sources of funds, non agricultural credit cooperatives, cooperative urban banks, their functions, sources of funds.

Cooperative Marketing: definition, objectives, functions, regional Marketing cooperative societies, state cooperative marketing federation, National agricultural cooperative marketing federation, Cooperative processing development in India. Cooperative sugar factories, Cooperative food grains processing units, Vegetable and fruit processing units, Oil Seeds processing units and cotton processing units.

Time: 3 hrs

**PRACTICAL
SEMESTER-I**

Marks: 25

1. Visit an agriculture cooperative society running in your locality and study its structure areas and objectives, memberships, Source of funds and services provided by it to members in particular and society at large prepare project report on its working.

Time: 3 hrs

**PRACTICAL
SEMESTER-II**

Marks: 50

1. Visit a cooperative Marketing federation e.g. Milkfed and study its structure aims, Membership, sources of funds and services provided by it to members in particular and society at large. Prepare a project report on its working.

**III HOME SCIENCE GROUP
(i) FOOD PRESERVATION**

**Paper-I
Time : 2 hrs.**

**FUNDAMENTAL OF FOOD PRESERVATION
THEORY**

**Marks : 30
Int. Ass./CCE: 10
Total Marks: 40**

Semester-I

1. Our Food-Functions of food, basic food groups, sources & functions of various nutrients.
2. Food Preservation Industry-Its need, future scope and role in the economy of country with special reference to Punjab.
3. Effects of processing and storage on the nutritive value, colour, appearance, texture, flavour and overall acceptability of foods.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Post harvest technology for fruits and vegetables - surface coating, low temperature, maturity & ripening and deep freezing.

2. Food Additives-spices, preservatives flavours & colours - their properties and uses.
3. Study of (a) Simple equipments and their use-thermometer, gelmeter, hygrometer, salinometer and refractometer (b) Simple laboratory processes used in food industries- Pasteurization, homogenization, filtration, distillation, evaporation, condensation.
4. Study of pH, mode of detection and its role in food preservation.

**FUNDAMENTALS OF FOOD PRESERVATION
PRACTICAL**

Time : 3 hrs

M. Marks : 25

Semester-I

1. Weights, measures and conversions.
2. a. Use of simple equipments used in the food industry such as thermometer, gel-meters, hygrometer, refractometer and salinometer.
b. Simple processes like distillation, evaporation, condensation, pasteurization and homigenization.
3. Methods of increasing shelf life of perishable foods by surface coating and low temperature.

Time: 3 hrs

Semester-II

M. Marks : 50

4. Market surveys -
 - a. Type of food available.
 - b. Prices.
 - c. Handling techniques (container, bags etc.)
5. Preparation and standardization of Normal Solutions.
6. Determination of acidity and alkalinity & pH.
7. Visit to orchard/market to observe stages of maturity of locally grown vegetables and fruits.
8. All practicals to be recorded in file along with procedures, analysis and samples.

Paper-II

FOOD MICROBIOLOGY AND QUALITY CONTROL

THEORY

Time : 2 hrs.

Marks : 30

Int. Ass./CCE: 10

Total Marks:40

Semester-I

1. Elementary knowledge of Mould, Yeast & Bacteria, their advantage and disadvantages with reference to food.
2. Causes of food spoilage - Physical, Microbial and Enzymatic.
3. Control of Communication in preserved foods.]

SEMESTER-II

THEORY

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

4. Food Poisoning - Causes & Control.
5. Effect of Heat & pH on Micro organisms.
6. Quality Control-Evaluation, methods, system and scope.
 - a) Food standards & specifications - Food laws governing FPO, MFPO, PEA, ISI, Agmark, FSSA (Food safety & Standard Act).

7. Organo-oleptic (Sensory) evaluation of foods.
8. Food Adulteration-common adulterants and simple detection techniques.

**FOOD MICROBIOLOGY AND QUALITY CONTROL
PRACTICAL**

Time : 3 hrs

M. Marks: 25

Semester-I

1. Use of microscope, its parts, accessories and their use.
2. A visit to microbiological laboratory in the area and report writing for the same.
3. Method of preparing slides and use of simple stains.
4. Practical observation and identification of common organisms causing food spoilage.

Time: 3 hrs

Semester-II

M. Marks : 50

5. Simple techniques of detecting food adulteration.
 6. Methods of detection of spoiled cans and care while consuming high pH foods.
 7. Fermentation techniques for juices and beverages.
 8. Determination of total soluble solids by refractometer - hygrometer salinometer and gel meter etc.
 9. Determination of salt in food products by chemical analysis.
 10. Market survey for consumer awareness regarding Quality Control and labels.
- All practicals to be recorded in file along with procedures, analysis and samples.

Paper-III

**FOOD PRESERVATION TECHNIQUES
THEORY**

Time : 2 hrs.

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

Semester-I

1. Food Preservation - Definition, importance, principles and methods of food preservation.
2. Preservation by salting, Brining, Curing and Pickling.
3. Preservation by sugar-principles involved in jams, jellies, marmalades, preserve, glazed, Crystallized.
4. Preservation by Chemical-class I and class II preservatives.

**SEMESTER-II
THEORY**

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

5. Refrigeration and freezing-advantages and disadvantages, storage and spoilage.
6. Sun drying and dehydration-principles involved, factors affecting drying, types of dehydrators, dehydration & rehydration ratios.
7. Preservation by alcoholic, acetic and lactic acid fermentation in foods and their importance in the diet.
8. Advanced methods of preservation:
 - (i) Irradiation.
 - (ii) Antibiotics.
 - (iii) Controlled atmospheric storage.
9. Pectin-Properties, uses and grades.

**FOOD PRESERVATION TECHNIQUES
PRACTICAL**

Paper-III**Time : 3 hrs.****Marks : 25****Semester-I**

1. Preparation, Organoleptic Evaluation and costing of the following as per seasonal availability.
 - a) Pickles
 - b) Jams & Marmalade
 - c) Sauces, Ketchup, Chutneys.

Time: 3 hrs**Semester-II****M. Marks : 50**

1. Preparation, Organoleptic Evaluation and costing of the following as per seasonal availability.
 - d) Fruit Juices, Squash, Crush, Cordial, RTC beverages, Sweetened Juices, fruit & Synthetic Syrups & Fruit Toffees.
 - e) Pappad & Varian.
 2. Sundrying of seasonal Vegetables & Calculating their dehydration and rehydration ratio.
 3. Visit to Cold Store & Food processing industry & report writing for the same.
- All practicals to be recorded in file along with procedures, analysis and samples.

**(ii) COMMERCIAL GARMENT DESIGNING AND MAKING
TEXTILE SCIENCE
(COMMON FOR ALL THE TEXTILE BASED COURSES)
THEORY**

Paper-I**Time : 2 hrs.****Marks : 30****Int. Ass./CCE: 10****Total Marks: 40**

1. Fibres - Introduction to Textiles Fibres, classification and description of various textile fibres (Natural, manmade and synthetic), Physical and Chemical properties for identification, use and care.
2. Yarn - Types of Yarns - simple, novelty and textured yarns.
3. Weaves - Introduction to different types of weaves. (not for the students of knitting technology).
Introduction to different types of knittings (For Knitting technology students only).

SEMESTER-II**Time: 2 hrs****THEORY****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45**

1. Dyes - Introduction to dyeing, classification of dyes as per their application - Natural, Direct, Acidic, Basic, sulphur Indigosol/soluble vat, Reactive, Disperse Naphthol or Azoic, chrome, Oxidation dyes and Pigment colours.
2. Finishes - Purpose, types & understanding the effect of some common finishes used in textile industry like Mercerisation, Sanforisation, Sizing, Crease resistance, Calendaring, Tenting and Embossing.
3. Study of various kinds of stains on textile and their removal.

TEXTILE SCIENCE**PRACTICAL****Paper-I****Time : 3 hrs.****Marks : 25****Semester-I**

- 1) Identification of various textile fibres by Physical (Burning and Microscopic) and Chemical (Solubility) methods.

2) Methods of Washing, Bleaching, starching, drying and ironing of various fabrics.

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) Colour fastness test to heat, Sunlight, gas fumes, perspiration, humidity, washing, crocking and Ironing on coloured natural fabrics.
- 2) Identification of various types of vegetable, animal, chemical and mineral stains and their removal.

All practicals to be recorded in file along with procedures, analysis and samples.

Paper-II

**DESIGNING AND PATTERN MAKING
THEORY**

Time : 2 hrs.

Marks : 30

Int.Ass./CCE: 10

Total Marks: 40

Semester-I

1. Design -
 - a) Concept and types - Structural and applied.
 - b) Elements of design - Line, Colour, Texture, Form and Shape.
 - (i) Line - Straight, Vertical, Diagonal, Horizontal and Curved lines.
 - (ii) Colour - Theory of colour, qualities of colour, colour wheel, colour schemes. Psychological impact of colours and factors affecting choice of colours.
 - (c) Principles of design-Balance, Harmony, Rhythm, Proportion and Emphasis in relation to apparel.
2. Sketching -
 - a) Tools for drawing and sketching.
 - b) Figure sketching - Normal figure, Fashion figure, Block figure and Flesh Figure
 - c) Optical illusions of
 - (i) Inner lines - Vertical, Horizontal, Diagonal & Curved lines and also of big and small Checks.
 - (ii) Outer lines - Rectangular, Circular, Square, Triangular, Inverted Triangular.
 - (iii) Wide and Narrow panels of various garments.
 - (iv) Sleeves, Collars, Neck lines. Yokes and Pockets.
3. Introduction to measuring, marking, drafting and cutting tools.
4. Paper pattern - Purpose, principles, techniques and use in lay out any cutting.
5. Importance of taking accurate body measurements, locating proper measuring points for children, women and men.

**SEMESTER-II
THEORY**

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

6. Standard measurements for children (measurement charts).
7. Introduction to pattern manipulation and principles of pattern manipulations.
8. Adaptation of basic paper pattern to size, shape, darts and fullness.
9. Method of adaptation of basic bodice block for developing garment pattern.
10. Collar, sleeve and yoke manipulations.

**DESIGNING AND PATTERN MAKING
PRACTICAL**

Time : 3 hrs.

Marks : 25

Semester-I

1. Design -
 - a) Basic lines
 - b) Colour-Wheel, tints and tones, combinations and schemes.
 - c) Texture-Textural combinations with fabric samples.
2. Sketching -
 - a) Floral and Geometrical motifs.
 - b) Block Figure, Flesh figure, Normal and Fashion figure.
 - c) Composition of figures with pencil shading and colour media.
 - d) Flesh figures with garments for ladies and children keeping in view the modern trends of fashion.
3. Taking body measurements, their sequence and application in drafting and cutting.
4. Drafting child's bodice block.

Time: 3 hrs

Semester-II

M. Marks : 50

1. Drafting child's sleeve block.
 2. Adjustment in block pattern of children.
 3. Drafting lady's bodice block.
 4. Drafting lady's sleeve block.
 5. Adjustment in block pattern of ladies.
 6. Making paper pattern of basic bodice block, sleeves and collars.
- All practicals to be recorded in file along with procedures, analysis and samples.

**CLOTHING CONSTRUCTION
THEORY**

Paper-III

Time : 2 hrs.

**Marks : 30
Int. Ass./CCE: 10
Total Marks: 40**

Semester-I

1. Tools and equipments for sewing Ironing and finishing.
2. **Sewing machine :**
 - a) Types - Hand, Tradle and Motorized ; main parts, their operations and safety measures.
 - b) Different types of stitching adjustments attachments and their uses.
 - c) Minor defects and their remedies.
 - d) Sewing threads - their number, sizes and uses with relation to needle and cloth.
3. **Basic processes for garment making -**
 - a) Basic stitches - Basting, Running stitch, Back stitch, Blanket stitch, Button-hole. Hemming, Slip stitch, Whipping, Lock stitch.
 - b) Decorative stitches - Lazy-daisy, Chain, Stain stitch, Herring bone, Feather-long and short, French knot, Patch work. Mirror work Cross stitch and Beading.
 - c) Seams and seam finishes - Plain seam, Counter hem seam, Lapped seam, Run and fell seam.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

4. **Principles of Garments Making -**
 - a) Preparation of fabric-shrinking, straightening, ironing.

- b) Placing, marking, cutting and handling of various type of materials.
 - c) Selection of trimmings, supporting fabric (lining, interlining) and fastner.
5. Disposal of fullness - Pleats-Knife, Box, Laverted; Darts, Tucks, Pin shells, Gathers, Smocking, Shirring, Frills and Ruffle.
 6. Plackets - One piece and two piece placket opening.
 7. Fastners- Press buttons, 'Hooks and eyes, Eyelets buckles, Button, Button holes, Zippers and Velero tape.
 8. Edge Finishes - Facing and Binding both biased and shaped.

CLOTHING CONSTRUCTION

Paper-III

PRACTICAL

Time : 3 hrs.

Marks : 25

Semester-I

1. Identification and maintenance of tools and equipment of dress making.
2. **Sewing machine -**
 - a) Types, main parts, operation and care.
 - b) Main adjustments while operating sewing machine.
 - c) Special attachments and their use.
 - d) Minor defects and rectification.
3. Selection and use of different threads and needles for various fabrics.
4. **Making samples of -**
 - a) Basic stitches.
 - b) Decorative stitches.
 - c) Seams.
 - d) Disposal of fullness.
 - e) Fastners.
 - f) Edge Finishes

Time: 3 hrs

Semester-II

M. Marks : 50

1. **Drafting of basic bodice blocks for children and women.**
2. **Adapting the basic blocks for making the following garments;**
 - a) Children - Frock & Shorts.
 - b) Women - Petticoat, Saree Blouse, Salwar Kameez.
3. Estimation of the fabric and accessories on the basis of body measurements.
4. Fitting, finishing, Ironing and folding of the above garments.
5. Files (a) Sample file, (b) Drafting and adaptation file.

All practicals to be recorded in file along with procedures, analysis and samples.

(iii) TEXTILE CRAFT (WEAVING)

Paper-I

TEXTILE SCIENCE

SAME AS GIVEN UNDER

COMMERCIAL GARMENT DESIGNING AND MAKING YARN PREPARATION AND FABRIC STRUCTURE

Paper-II

THEORY

Time : 2 hrs.

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

Semester-I

1. Spinning & its types -
 - a) Mechanical - spinning of cotton, wool and worsted.
 - b) Chemical - Melt, Dry & wet spinning.
2. Terminology related to fabrication - fabric, Warp, Weft Woof, Weave, repeat pattern, design, draft plan, peg plan, selvedge (Plain, Tape, Split, Fused, Ieno, Tucked), texture motif and picks.
3. Introduction to yarn preparation, winding, wrapping - Definition & different methods of warping, warping calculations (no. of ends/inch, no. of picks/ inch/no. of bobbins, no. of sections, width of sections, length of warp on bobbins, total length of yarn, weight of yarn, width of cloth including selvedge), sizing beaming, looming, yarn count, reed count and count of folded yarn.

4. Aims, objective and scope of weaving.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Use of graph paper.
2. Detailed classification of weaves - Elementary, Compound and Complex.
3. Introduction to the following weaves alongwith their draft plan and peg plan :
Plain weave - Rib and Basket, Twill weave- Regular, Pointed Honey Comb, Satin, Sateen, Pile weave-Cut and Uncut.
4. Introduction to Computer Aided Weaving.

**YARN PREPARATION AND FABRIC STRUCTURE
PRACTICAL**

Time : 3 hrs.

Max. Marks : 25

1. Warp and Weft winding, Pin winding, Bobbin winding and cone winding.
2. Plain Weave-Preparation of wrap, drafting, denting and drawing.
3. Basket Weave-Preparation of warp, drafting, denting and drawing.
4. Simple exercise on different types of knotting.

Time: 3 hrs

Semester-II

M. Marks : 50

1. Regular twill Weave - Preparation of warp, drafting, denting and drawing.
2. Pile Weave - Preparation of warp, drafting, denting and drawing.
3. Introduction in Computer Aided Weaving.

All practicals to be recorded in file along with procedures, analysis and samples.

Atleast three visits to reputed textile industry, quality control centre or textile related institute, maintaining record of the visits and report writing for the same.

**HANDLOOM MECHANICS AND OPERATIONS
THEORY**

Paper-III

Time : 2 hrs.

**Marks : 30
Int.Ass./CCE: 10
Total Marks: 40**

- 1) History of weaving & its importance in textile craft.
- 2) Types and parts of warping machine-creel stand, hackreed, warpreed, guide roller, warping drum, warping beam and drawing hooks and their functioning.
- 3) a) Types and parts of handlooms and their functioning.
b) Harnessing of Handloom.
- 4) Different types & parts of shuttle.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

- 1) Process of handloom fitting.
- 2) Motions of the handloom -
a) Primary motions - shedding, picking & beating up.
b) Secondary motions - Taking up & letting off.

- 3) Checking of handloom before operation and general precautions.
- 4) Different methods of drafting & denting.
- 5) Working of Dobby on handloom.
- 6) Working of Jacquard on handloom.

HANDLOOM MECHANICS AND OPERATIONS

Paper-III

PRACTICAL

Time : 3 hrs.

Marks: 25

Semester-I

- 1) Winding of bobbins.
- 2) Arrangement of bobbins in creel.
- 3) Passing of threads through the heckreed.

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) Pirl winding and inserting.
 - 2) Fitting of handloom and maintenance.
 - 3) Harnessing of Handloom.
 - 4) Weaving of cloth - Plain weave, Basket weave, Twill weave and Terry pile weave.
- All practicals to be recorded in file along with procedures, analysis and samples.

(iv) TEXTILE DESIGNING TEXTILE SCIENCE

Paper-I

SAME AS GIVEN UNDER COMMERCIAL GARMENT DESIGNING AND MAKING TEXTILE DESIGNING AND PRINTING

Paper-II

THEORY

Time : 2 hrs.

**Marks : 30
Int. Ass./CCE: 10
Total Marks: 40**

Semester-I

- 1) Origin, historical background and characteristics of traditional Indian designs with special references to Punjab.
- 2) Design-Definition, Classification (structural & applied), principles and elements.
- 3) Colours-light and pigment theory of colours, colour wheel, primary, secondary and tertiary colours, colour schemes and Qualities of colour.

SEMESTER-II THEORY

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

- 1) Introduction to textile printing materials used for printing, its importance and various methods of printing: block printing, roller printing, screen printing, spray printing/stencil printing and transfer printing.
- 2) Elementary study of thickening agents and auxiliaries.
- 3) Preparation of textile fabric for printing-Scouring, Bleaching, Sinzing & Batching.

- 4) Block printing of cotton fabric with aniline black.

TEXTILE DESIGNING AND PRINTING

Paper-II

PRACTICAL

Time : 3 hrs.

Marks : 25

Semester-I

- 1.(a) Practice of mixing colours showing colour on colour wheel with varied values and hues showing various colour combinations.
- (b) Preparing file of at least 25 pages with different designs suitable for textiles using soft pencil, crayon, pencil colours, sketch pens, coloured ink or water colour.
2. Preparing paper stencils for printing.

Time: 3 hrs

Semester-II

M. Marks : 50

1. Making of design for saree border, handkerchief and pillow cover.
2. Practice of painting with fabric colours on textiles.
3. Practice of printing aniline black on cotton cloth with hand block.
4. Making preparation of grey scale.

All practicals to be recorded in file along with procedures, analysis & samples.

Visit to museums, Art Galleries, Craft Meals and Report writing of the Craft appraised.

TEXTILE DYEING

THEORY

Paper-III

Time : 2 hrs.

Semester-I

Marks : 30

Int. Ass./CCE: 10

Total: 40

- 1) Brief study of pH value.
- 2) Precautions to be observed while scouring, bleaching and dyeing.
- 3) Scouring and bleaching of cotton and woolen fibres and fabric.
- 4) Properties, names and applications of direct dyes on cotton and after treatment with synthetic fixing agents.

SEMESTER-II

THEORY

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

- 1) Properties, names and applications of reactive dyes, azoic dyes (Naphthol), Vat and indigo-sol dyes.
- 2) Determination of weight of dyes and chemicals from percentage in recipes.
- 3) Dyeing of woolen yarn with acid dyes and metal complex dyes (Nulon and Chrome dyes).
- 4) A brief study of long bath, short bath, neutral bath, standing bath, stripping, leveling.
- 5) Study of factors affecting the fading of dyed textiles - Heat, light, sunlight, gas fumes, humidity, perspiration, rubbing chemicals, washing, crocking and Ironing.

TEXTILE DYEING

PRACTICAL

Paper-III

Time : 3 hrs.

Semester-I

Marks : 25

- 1) Practice of scouring and bleaching of cotton and wool.

- 2) Practice of dyeing of cotton and jute with direct dye.
- 3) Effect of time, temperature, water ratio and chemicals in dyeing.

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) Practice of dyeing of cotton with reactive, azoic, vat and indigo-sol dyes.
- 2) Practice of dyeing of woolen yarn/fabric with acid dyes, metal complex (Nulon) dyes.
- 3) Practice of dyeing of cotton with Ramazole dyes.
- 4) Colour fastness test to heat, light, sunlight, gas fumes, humidity, perspiration, rubbing, chemicals, washing, crocking and ironing on coloured natural fabric.

All practicals to be recorded in file along with procedures, analysis & samples.

(v) KNITTING TECHNOLOGY

TEXTILE SCIENCE

Paper-I

SAME AS GIVEN UNDER

COMMERCIAL GARMENT DESIGNING AND MAKING

HANDFLAT KNITTING MECHANISM

Paper-II

THEORY

Time : 2 hrs.

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

Semester-I

- 1) Past, present & future perspective of Knitting Industry.
- 2) Basic terminology used in knitting such as Gauge, Wales, Course, Knitted stitch, Neele loop, Sinker loop etc.
- 3) Diagrammatic presentation of Latch Needle, understanding its different parts and their functions.
- 4) Diagrammatic presentation of loop formation on flat needle on V bed Hand Knitting Machine.
- 5) Diagrammatic presentation of weft knitted stitches such as plain, rib and tuck.
- 6) Diagrammatic presentation of cam system of V bed Hand Flat Knitting Machine.

SEMESTER-II

THEORY

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

- 1) Operations and function of different cams of cam system of V bed Hand Flat Knitting Machine.
- 2) Setting of stitch length on a Hand Flat Knitting Machine.
- 3) Knitting process of welts and function of welts.
- 4) Knitting process of 1 x 1 rib and plain fabric.
- 5) Knitting defects, their causes & remedies on Hand Flat Knitting Machine.
- 6) Maintenance of Hand Flat Knitting Machine.

HAND FLAT KNITTING MECHANISM

PRACTICAL

Time : 3 hrs.

Semester-I

Marks : 25

- 1) Identification and functioning of different parts of Hand Flat Knitting Machine.

- 2) Description & diagrams of Cam set, different parts of Cam set & their functions.
- 3) Method of putting and replacing of Needles.
- 4) Adjustment of brushes, method of feeding yarn and setting of feeders on Flat Knitting Machine.
- 5) Starting sequence of the machine for knitting.
- 6) Knitting of plain fabric on Flat Knitting Machine.

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) Jobbing on and Running on operation on Flat Knitting Machine.
- 2) Setting of Stitch Quality or Stitch Length on Flat Knitting Machine.
- 3) Knitting of 1 x 1 & 2 x 2 rib on Flat Knitting Machine.
- 4) Transferring of loops from one needle bed to another needle bed with the help of Decca and knitting of single bed fabric.
- 5) Knitting of Decca design and Tuck design.
- 6) Knitting of Half cardigan and Full cardigan fabric.
- 7) Knitting of Half milano and Full milano fabric.
- 8) Knitting of panels of front, back and sleeves for making :
 - i) Pull Over.
 - ii) Slip Over.
 - iii) Ladies Cardigan.

All practicals to be recorded in file along with procedures, analysis & samples.

Visit to reputed knitting industry/knitting technology institutes-craft melas and report writing for the same.

**HAND DRIVEN CIRCULAR KNITTING
THEORY**

Paper-III

Time : 2 hrs.

Semester-I

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

1. Classification of Knitting Industry
 - i) Socks Knitting Industry
 - ii) Under Garments Knitting Industry
 - iii) Outerwear Garments Knitting Industry.
2. Socks Knitting Machine its different parts and their uses.
3. Cylinder Cam Set of hand driven socks machine, explanation of its different parts and their functions with diagram.
4. Dial Cam Set of hand driven socks machine, explanation of its different parts and their functions with diagram.
5. Looping elements-Needle, Sinker and Verge.
6. Diagrammatic presentation of loop formation of latch needle on circular knitting machine.
7. Method of formation of welt on hand socks knitting machine.
8. Method of knitting heal and toe.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Jobbing on, running on operation of circular knitting.
2. Showing diagrammatically different parts of socks (welt, rib top, leg part, heal part, foot part and toe part).
3. Method of knitting rib with the use of dial.
4. Method of making complete socks a with elastic rib top and 1x1 rib top.
5. Toe closing (i) Linking (ii) Over locking.
6. Defects that occur during circular knitting and their causes and remedies.
7. Different types of articles can be produced on hand driven knitting machine such as Mitins, Socks, Stockings, Gloves etc.

HAND DRIVEN CIRCULAR KNITTING

PRACTICAL

Time : 3 hrs.

M. Marks : 50

- 1) Identification of various parts of socks machine.
- 2) Tools and accessories used in circular knitting and their uses.
- 3) Identification and function of cylinder cams.
- 4) Identification and functions of dial-cams.
- 5) Disassembling and assembling of the cam system of socks machine.
- 6) Raising and Lowering of dial and time setting.
- 7) Method of starting machine with jobbing on method and running on method.
- 8) Knitting of welt and 1 x 1 rib.
- 9) Method of knitting heal and toe

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) How to adjust the stitch length and yarn guide of the machine.
- 2) Knitting of full socks.
- 3) Knitting of stockings.
- 4) Method of linking of toe portion.
- 5) Method of Pressing, Labeling, Folding and packing of finished product.
- 6) Size chart of socks.

All practicals to be recorded in file along with procedures, analysis & samples.

IV ENGINEERING & TECHNOLOGY GROUP

(i) MAINTENANCE AND REPAIR OF ELECTRICAL DOMESTIC APPLIANCES

Paper I.

BASIC ELECTRICITY

Time : 2 hrs.

THEORY

**Marks : 30
Int. Ass./CCE: 10
Total Marks: 40**

Semester-I

1. Introduction

What is electricity and its sources. Definition of Resistance, Voltage, Current, Power, Energy and their units, Factors affecting resistance of a conductor. Temperature coefficient of resistance. Difference between ac and dc voltage.

2. D.C. Circuits :

Ohm's Law Relation between voltage and current in a dc circuit. Series and parallel resistance circuits, and their equivalent resistance. Series-Parallel resistance circuits, calculation of equivalent resistance. Kirchhoff's laws and their applications.

3. Batteries

Primary cell, dry cell, battery, series and parallel connection of cells, Secondary cells, Lead Acid Cell, discharging and recharging of battery common charging methods, care and maintenance of secondary Battery Specifications of a cell Battery.

4. Heating and Lighting Effects of Current :

Joule's Laws of electric heating and its domestic applications, heating efficiency Lighting effect of electric current, Filaments used in lamps, lamps and gas discharge lamps, their specifications, working and applications.

5. Capacitors :

Capacitor units and capacity. Concept of charging and discharging of capacitors. Types of capacitors and their use in circuits. Series and parallel connection of capacitors Energy stored in a capacitance.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

6. Electromagnetic Effects :

Permanent magnets and Electromagnets their construction and use. Polarities of an electromagnet and rules for finding them. Faraday's Laws of Electromagnetic Induction and applications. Dynamically induced e.m.f., its magnitude and direction. Static e.m.f., its magnitude and direction. Static induction, self induced e.m.f. its magnitude and direction. Inductance and its unit. Mutually induced e.m.f. its magnitude and direction.

7. A.C. Circuits :

Principles of Generation of A.C. voltage and wave shape Cycle, frequency, peak value (maximum value) average value, instantaneous value, r.m.s. value Introduction to resistance, capacitance and inductance. What is inductive reactive and capacitive reactance phase, phase difference, power factor (leading and lagging). Impedance, impedance of R.L. & C, A.C Circuits with (i) resistance and inductance, (ii) resistance and capacitance (iii) Resistance, inductance and capacitance in series.

8. Measuring instruments :

Working principles of moving iron and moving coil voltmeters and ammeters, Dynamometer type wattmeter, Ohm meter, Megger and Induction type Energy meter, their circuit connection and application for measurement of electrical quality.

9. Electrical Wiring

Types of wiring - Introduction to casing and capping conduit wiring their procedure systems. Factor for selection of a particular wiring system. Importance of switch, fuse, change over switch and earthing of wiring system. Types of faults, their causes and remedies. Methods of finding numbers of circuits and circuit distribution by distribution board system. Indian Electricity Rules (IER) related to wiring. Introduction to submeters and their installation in Inverter wiring.

Types of earthing - Plate Earthing, and pipe Earthing, their procedure and application.

Solar Electricity

Need of Solar Energy, Solar Photovoltaic (SPV) Technology, advantage of SPV system, Solar Constant, formation of Solar Cells, SPV Module, Array and Applications of Solar Photovoltaic System.

BASIC ELECTRICITY**Time : 3 hrs.****PRACTICAL
Semester-I****Marks : 25**

1. Measurement of current, voltage and resistance of the help of multimeter.
2. Verification of Ohm's Law.
3. Measurement of equivalent resistance of series combination of resistors.
4. Measurement of equivalent resistance of parallel combination of resistors.
5. Measurement of equivalent resistance of series-parallel components of resistors.
6. To verify Kirchhoff's current laws.
7. Charging a lead acid battery and to test its state of charge.
8. Study of series and parallel capacitor circuits.
9. Study of series and parallel resistor circuits/lamps.
10. Study of R.L. series circuit and measurement of impedance, power and power factor.
11. Study of R.C. series circuit and measurement of impedance, power and power factor.
12. Study of R.L.C. series circuit and measurement of impedance, power and power factor.
13. Connections of Ammeter, Voltmeter and Wattmeter in an A.C. circuit of resistive load.
14. To test a single phase energy meter with the help of standard wattmeter and stop watch with resistive load.

Time: 3 hrs**Semester-II****M. Marks : 50**

1. Controlling low voltage lamps in series.
2. Controlling lamps from two or three places.
3. Drawing schematic diagram of single phase supply to consumers.
4. Drawing schematic diagram of three phase supply to consumers.
5. Practice on CTS/TRS (Batten) wiring with 2 fans, 4 lamps, 2 tubes and 4 plug points.
6. Practice on conduit wiring.
7. Polarity (means phase and neutral testing) test of wiring installation.
8. Measurement of insulation resistance of wiring installation by megger.
9. Testing of wiring in installations with the help of megger.
10. Installation of pipe earthing for wiring installation.
11. Study of plate earthing for wiring installation.
12. Testing faults of wiring installation and rectification.
13. Installation of a sub-meter between a given electrical wiring.
14. Measurement of open Circuit Voltage and short circuit current of a PV Module.
15. To study/Install a Solar Street light System.

Paper II
Time : 2 hrs.

ELECTRICAL DOMESTIC APPLIANCES
THEORY

Marks : 30
Int. Ass./CCE: 10
Total Marks: 40

Semester-I

1. Introduction to Single phase supply :

Introduction to phase neutral earth, voltage between phase and neutral, phase and earth common faults as like open circuit, short circuit and earth fault. Series testing board and its uses.

2. Electric Room Heater :

Construction and working principle of Reflector type room heater, common defects, testing and repairs.

3. Electric Iron :

Types of electric iron-ordinary type and Automatic/Thermostat control type, steam iron. Constructions and working principles of electric irons. Common defects, testing and repairs.

4. Electric Stove :

Types of electric stoves-coiled types, hot plate/oven. Construction and working principles of electric stoves. Common defects, testing and repairs.

SEMESTER-II
THEORY

Time: 2 hrs

Marks: 30
Int. Ass./CCE: 15
Total Marks: 45

5. Electric Toaster :

Types of toaster- Ordinary and Automatic. Construction and working principles of electric toasters. Common defects, testing and repairs.

6. Immersion Heater and Gyser :

Construction, working principle and use of immersion heater. Common faults, their causes, testing and repairs.

Construction, working principles and use of Gyser, Common defects, their causes, testing and repairs. Testing and installation of Gyser. Precautions in using immersion heater and gyser.

7. Electric Kettle :

Construction, working principle and use of Electric Kettle. Common faults, their causes.

8. Table Lamp, Low Voltage Night Lamp and Tube Light :

Constructions, working principles and uses of Table Lamp, Night Lamp and Flourescent Tube (Tube Light) Common faults and their causes, testing and repair. Study of CFL (Compact Flourescent Light) and LED (Light Emitting Diode).

9. Electric Bell, Buzzer and Door Chimes :

Constructions, working principles and uses of Electric Bell, Buzzer and Door chimes. Common faults and their causes testing and repair.

ELECTRICAL DOMESTIC APPLIANCES

Time : 3 hrs.

PRACTICAL
Semester-I

Marks : 25

- 1) Fabrication of a control panel board with meters and series test lamp for testing of electrical appliances.
- 2) Fabrication of a mains lead with three pin plug and iron connector.
- 3) Dismantling and reassembling of reflector type room heater.
- 4) Testing and repair of reflector type room heater.

- 5) Dismantling and reassembling of Electric iron (i) ordinary types and (ii) Automatic/Thermostat control type.
- 6) Testing and repair of Electric iron (i) Ordinary type and (ii) Automatic/ Thermostat control type.
- 7) Dismantling and reassembling of Electric stove (i) Coiled type (ii) Hot plate (iii) Oven.
- 8) Testing and repair of Electric Stove (i) Coiled type (ii) Hot plate (iii) Oven.

Time: 3 hrs**Semester-II****M. Marks : 50**

- 1) Dismantling and reassembling of Electric Toaster (i) Ordinary and (ii) Automatic.
- 2) Testing and repair of Electric Toaster (i) Ordinary and (ii) Automatic.
- 3) Dismantling and reassembling of Gyser.
- 4) Testing and repair of Gyser.
- 5) Dismantling and reassembling of Electric Kettle.
- 6) Testing and repair of Electric Kettle.
- 7) Connections of a fluorescent tube.
- 8) Testing and repair of (i) Table Lamp (ii) Night Lamp and (iii) Tube Light.
- 9) Testing and repair of (i) Electric Bell (ii) Buzzer and (iii) Door chimes.
- 10) Fabrication of an extension cord for three plug points with independent controls.

Paper III**MATERIALS AND WORKSHOP PRACTICE
THEORY****Time : 2 hrs.****Marks : 30****Int. Ass./CCE: 10****Total Marks: 40****Semester-I****1. Safety Precautions and Shock Treatment :**

Familiarise the students with shop discipline, Layout of shops, Safety precautions. Use of fire fighting equipment. First Aid practice. Causes of electric fire and electric shock. Precautions to avoid electric fire and electric shock. Procedure for removal of person from contact of live wire. Treatment for electric shock and burns as per IEL rules.

2. Common Tools

Familiarise the students with common tools, safe use of tools, their specification and applications.

3. Conducting Materials

Copper and aluminium as low resistivity materials, their electrical characteristics and applications. Electric resistance materials. Materials for lamp filaments and brushes. Tungsten, Nichrome, Euroka, Selenium and Carbon as high resistivity materials, their electrical characteristics and applications.

4. Insulating Materials :

Distinction between conductor, insulator and semi conductor, insulation resistance, dielectric strength, breakdown voltage, mechanical and physical properties and classification of insulating materials. Paper, plastic coated paper. Empire cloth Leatheroid Cotton and silk, Rubber, PVC Porcelain, Bitumen, Micro, Bakelite, Ebonite, Marble, Glass Asbestos, Fibre glass-their uses and applications insulating tapes, Sleeves, insulating and empragnating varnishes and points-their uses and applications.

5. Magnetic Materials :

Classification of materials as Fenomagnetic materials, soft and hard magnetic material, Mild steel, silicon steel, Mu-metal, Permalloy, Alnico as magnetic materials their properties and uses.

6. Structure Materials :

Iron Steel, Brass, Gun Metal and Aluminium as structural materials, their properties and applications.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

7. Fuse and soldering Materials

Silver, copper, lead, Tin and alloys as fuse material, that properties and applications. Soldering and Brazing materials and tools. Procedure of soldering and brazing and precautionary measures.

8. Wiring Materials :

ICTP and ICDP main switches, Distribution Boards, Bustor, Conduit fittings and pipes, Battens, Round Block, Board, Switches Lamp holders, Ceiling roses, Plugs, Sockets, Wires, etc. used for different wiring.

9. Lubricants :

Solid, semi-solid and liquid lubricants-uses and applications.

10. Corrosion Protective Points :

Application of point for corrosion protection and precautions in pointing.

11. Transmission of Power :

Bell drive, Shaft drive, Gear drive, Chain drive, Friction drive and their application in domestic appliances.

12. Electrical symbols and blue print reading. Simple Domestic electric circuit drawing.

13. Construction and application of bimetallic relays and thermo-couple for control of temperature and current.

14. Introduction to Miniature Circuit Breaker (MCB) and Earth leakage Circuit Breaker (ELCB), Specifications and their use in electrical circuits.

MATERIALS AND WORKSHOP PRACTICE

Time : 3 hrs.

**PRACTICAL
Semester-I**

Marks : 25

- 1) First aid box practice.
- 2) Identification of common tools.
- 3) To form two identical coils using insulated copper wire and aluminium wire of same gouge and same number of turns and compare their resistance.
- 4) To make coils of Nichrome and Eureka wires of equal lengths and gouge and measure resistance, current and power at a given voltage.
- 5) Identification of different insulating materials.
- 6) Practice on insulating (i) Slots and (ii) Cores of motors.
- 7) Insulating the coil winding with varnish.
- 8) Identification of structural materials parts.

Time: 3 hrs**Semester-II****M. Marks : 50**

- 1) Replacing a blown fuse of standard current rating.
- 2) Study the relationship between wire diameter and fusing current for instantaneous fusing.
- 3) Soldering practice.
- 4) Lubricating Technique practice.
- 5) Study of thermocoupled oven to control temperature.
- 6) Application of bimetallic relay to control temperature.
- 7) Use of on MCB in an electrical circuit.
- 8) Use of an ELCB in on electrical circuit.

(ii) REPAIR & MAINTENANCE OF RADIO & TELEVISION**Paper-I****BASIC ELECTRONICS****Time : 2 hrs.****THEORY****M. Marks : 30****Int. Ass./CCE: 10****Total Marks: 40****Semester-I****1. Basic Electricity :**

Electricity & its sources ac and dc concept of phase, frequency, graphical representation of ac and dc. Batteries, need of power supply, cells and batteries. Resistors, capacitors and types of resistors and capacitor. Component ratings and color order of resistors and capacitor, relationship between voltage and current. Ohm's law, Kirchhoff's Laws and their applications. Magnetism, Definitions of Electromagnetization electromagnetic induction, flux, permeability. Transformers; concept working principle and application.

SEMESTER-II**Time: 2 hrs****THEORY****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****2. Circuits :**

Series, parallel and combination circuits of resistors, capacitors and inductors, LC, RLC, LC circuits and their applications.

3. Material Services :

- Conductors, Semiconductors and insulators P and N types materials their principles and properties.
- Thermistors - PNP, NPN, symbols, their functioning, Zener Diodes, FET and their applications.
- SCRs - Symbols, characteristics and uses, Diacs, Triacs and their uses. LDR, VDR and Thermistors and their uses.
- Integrated circuits - Introduction to IC's, Types (Audio, Video, Digital, Analogics) their advantages, limitations and applications.

Paper-I**BASIC ELECTRONICS****Time : 3 hrs.****PRACTICAL****Marks : 25****Semester-I**

- 1) Drawing of Electronic/Electrical Symbols.
- 2) Freehand sketching of Electronic Components.
- 3) Tracing of given Electronic circuits.

- 4) Identification of components and devices.
- 5) Colour coding of resistors and capacitors.
- 6) Verification of Ohm's Law (Relationship between Voltage and Current).
- 7) Verification of Kirchhoff's Laws.

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) Study and use of series and parallel Circuit of (a) resistance (b) capacitors.
- 2) Study of series and parallel Resonant circuits.
- 3) To check a transformer for primary and secondary voltages.
- 4) Fabrication of an extension board for Power supply and use of Line Tester.

Paper-II

ELECTRONIC CIRCUITS

Time : 2 hrs.

THEORY

Semester-I

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

1. Electronic Circuits

- Rectifiers-half wave, full wave and bridge type, their working. Capacitors as a Filter. Concept of 'T' and 'π' filters.
- Power supply regulators - Zener regulation, series and shunt regulators and IC regulators, voltage doubler and triplets circuits.
- Amplifiers : Class A, B, AB and C their input and output characteristics and efficiency (without derivations).
- Audio Amplifiers - Voltage and Power amplifiers used in Radio and TV Receivers.
- RF Amplifiers - General Principles, single and double tuned RF and IF amplifiers used in Radio and TV Receivers.

SEMESTER-II

THEORY

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

- Oscillators-Concepts of Oscillators, types of oscillators such as Hartley, Colpitts, phase shift, Wein bridge and crystal oscillators, circuits and their working. Feedback and its types, effect of negative feedback on gain, bandwidth, noise and distortion.

2. Measuring Instruments

- Principle of voltmeter, ammeter, multimeter and digital multimeter their uses and applications.
- Cathode Ray Oscilloscope-Basic principle, use of CRO for measurement of voltage and frequency.
- Introduction to frequency- meter, wattmeters, energy- meter, capacitance meter. Use of signal Generator for tuning.

3. Tools

- Soldering Iron - Various types proper use and maintenance
- Desoldering tools
- Common tools used in servicing and assembly in electronic shop.

Paper-II
Time : 3 hrs.

ELECTRONIC CIRCUITS
PRACTICAL
Semester-I

Marks : 25

- 1) Measurement of alternating and direct voltages and currents with the help of voltmeter and ammeter.
- 2) Measurement of V, I & R parameters with the help of analog multimeter.
- 3) Measurement of V, I & R parameters with the help of digital multimeter.
- 4) Measurement of voltage & Frequency with the help of an oscilloscope.
- 5) Measurement of frequency with the help of frequency meter.
- 6) Testing of Diode, Transistor, SCR, Zener Diode, L & D and F & T with the help of a multimeter.

Time: 3 hrs

Semester-II

M. Marks : 50

- 1) Graded exercises on soldering practice viz. tinned wire, PCB, lugs, connectors etc.
- 2) Fabrication of 3/6/9 volt simple DC power supply using half wave and full wave rectifiers. [Battery Eliminator]
- 3) Fabrication of a zener regulated DC Power supply.
- 4) Fabrication of DC stabilized supply using series and shunt pass transistors.
- 5) Demonstration and study of Audio Frequency Amplifiers.
- 6) Demonstration and study of Radio Frequency Amplifiers.
- 7) Study and use of AF and RF signal generators for tuning of Transistor/radio receiver.
- 8) Using Signal Injection method of fault finding for servicing of electronic gadgets.
- 9) Demonstration of colpitts and weinbridge oscillators.

Paper-III
Time : 2 hrs.

AM/FM RADIO RECEIVERS & FAULT ANALYSIS
THEORY
Semester-I

Marks : 30
Int. Ass./CCE: 10
Total Marks: 40

1. AM Radio Receivers :

Basic concepts of Radio transmission, Modulation, types, necessity and demodulation (no circuits & derivations). Characteristics of a transmitter. Different modes of wave propagation.

Block diagram of radio receiver and its different stages.

SEMESTER-II
THEORY

Time: 2 hrs

Marks: 30
Int. Ass./CCE: 15
Total Marks: 45

1. FM Radio Receivers :

Basic principles and block diagram of FM receivers. Difference between FM and AM receivers.

2. Fault Analysis :

Introduction to systematic fault finding techniques, sectionalization and signal injection and other such techniques. Typical case histories and exercises. Mechanical fixtures-Typical troubles and their remedy.

Paper-III
Time : 3 hrs.

AM/FM RADIO RECEIVERS & FAULT ANALYSIS
PRACTICAL
Semester-I

Marks : 25

1. Introduction to Electronic drafting :

- (a) Block Diagram.
 - (b) Schematic Diagram.
 - (c) Layout Diagram.
 - (d) Wiring Diagram.
2. Identification of parts and sections of a medium wave transistor/radio receiver.
 3. Assembling a medium wave transistor/radio receiver.
 4. Measuring voltages at different test points of a transistor/radio receiver.
 5. Check waveforms at input and output parts of different stages with the help of CRO.

Time: 3 hrs**Semester-II****M. Marks : 50**

1. Alignment of IF stages.
2. Alignment of RF stages.
3. Fault finding in Mechanical fixtures viz. Dial Cord, Volume control, loud speaker etc.
4. Band switch wiring of a multiband radio-receiver.
5. Tracing the circuit of a given transistor/radio receiver.

(iii) ENGINEERING DRAWING & DRAFTING**Paper-I****ENGINEERING DRAWING
(PLANE GEOMETRY)****Time : 2 hrs.****THEORY
Semester-I****Marks : 30
Int. Ass./CCE: 10
Total Marks: 40****BASIC CONCEPT :****1. Introduction :**

Description of drawing equipment/instruments and its use, technique for handling instruments, selection of equipment/instruments. Description of drafting machine and its usage.

2. Planning and layout of Drawings :

Need for planning, standard sizes of drawing sheets, margins, title blocks and material list according to IS 696-1972. Standard practice of following the prints and planning the working spaces of the drawing sheet.

Scales-simple and diagonal.

3. Lines, lettering and dimensions :

Different types of lines and their usage. Standard practices for writing with single stroke with instruments and free hand vertical and inclined capital and lower case letters and numerals, also black lettering in the ratio 5.4, 7.4 vertical and inclined, Need of dimensioning. Principles of dimensioning, different systems of dimensioning. Arrangement of dimensions.

4. Geometrical Constructions :

Procedure of drawing plane geometrical figures like triangle, square, parallelogram, rhombus, circle and regular polygon, ellipse & parabola.

5. Projections of Solids :

Description of solids like cube, prism, pyramids, tetrahedron, cones and cylinders. Various positions of solids placed on ground or V.P. Projections of solids when axis is inclined to both the planes. (Use First and Third angle projection method).

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

PLANE GEOMETRY

6. Section of Solids :

Need for sectioning and sectional views. Horizontal Trace and Vertical Trace of cutting planes. Procedure of drawing sectional solids (cube, prism, pyramid, cylinder, cone) when solids rest on base. Procedure of drawing sectional views of solids when axis is inclined to one plane and parallel to other.

SOLID GEOMETRY

7. Orthographic Projections :

Meaning of H.P., Quadrants, I angle and III angle projection methods, Projections (Front, Top and Side) of Simple block.

8. Symbols and Conventions :

Necessity of symbols & conventions, conventions for

- (a) Bricks work, R.C.C., stone, wood, earth, rock, plaster, glass, fibre board, doors, windows, fencing, building, roads, railway lines, bridge canal, district, state and international boundary, Industry, School.
- (b) Valve, pumps, screw threads, springs, knurling, holes on linear pitch circular pitch, gears, bearings, glass, gun metal, cast iron, mild steel, copper, aluminium, lead, zinc, white metal, brass, bronze, asbestos, rubber.
- (c) Bulb, tube, fuse, earthing, plug, socket, switch, Main switch, cell, Battery, conductor, resistance, capacitance, inductance, ammeter, voltmeter, bell, buzzer, loud speaker, fans, regulator, field poles, armature.

9. Fasteners

- (a) Meaning / definitions of pitch, crest, root, depth of threads, minor diameter & major diameter of screw thread.
- (b) Freehand sketches of bolts, nuts, washers.
- (c) Freehand sketches of riveted joints, butt and lap joints.
- (d) Freehand sketches of studs, set screws and forms of threads like British Association, British standard, Whitworth, square, Butterfield, Unified, Sellers.
- (e) Freehand Sketches of locking nuts.
- (f) Freehand sketches of foundation bolts like eye bolt, Lewis, Rag, Cotter.
- (g) Freehand sketches of key like square, rectangular, sunk, flat & round, saddle Gib headed key.

10. Sectional orthographic projections :

Need for sectional views, procedure for drawing section views from the given orthographic projections of block.

11. Development of surface of solids :

Importance of development, list out the applications where developed surfaces are used.

Differentiate between parallel line and radial line development, Selection of proper methods of development, procedure for drawing the development of simple and truncated solids.

Development of the surface of cube, prism, pyramid, cone, cylinder, and frustum of pyramid and cones.

**ENGINEERING DRAWING
PRACTICAL
Semester-I**

Time : 3 hrs.

Marks : 25

1 Use of Instruments :

Lines, lettering and Dimensioning
Geometrical Construction with write up of problems.
Projection of lines and plane figures (with write up of problems).
Projection of solids (with write up of problems).
Section at solids twith write up of problems.
(Minimum 25 sheets relating to above concepts.)

Time: 3 hrs

Semester-II

M. Marks : 50

1. Orthographic (First angle and third angle)
Projection (first angle)
Projection (third angle)
2. Symbols and Conventions
3. Fasteners
4. Sectional orthographic projections.
5. Development of surfaces

Paper-II

BASICS OF BUILDING CONSTRUCTION

Time : 2 hrs.

**THEORY
Semester-I**

**Marks : 30
Int. Ass/CCE: 10
Total Marks: 40**

1. Building Layout
2. Foundation.
3. Brick Masonry.
4. Damp Prevention.
5. Door and Windows.

**SEMESTER-II
THEORY**

Time: 2 hrs

**Marks: 30
Int. Ass./CCE: 15
Total Marks: 45**

1. Floors.
2. Stairs.
3. Roofs & RCC (Reinforced Concrete Construction).
4. Internal water supply, Sewrage System.
5. Plastering & Pointing.
6. Painting, Distempering and white washing.

BASICS OF BUILDING CONSTRUCTION

Time : 3 hrs.

**PRACTICAL
Semester-I**

Marks : 25

1. Drawing of Foundation

2. Drawing of Brick Masonary (Diff. Types of Brick Bond).
3. Drawing of DPC (Damp Proof Course)
4. Drawing of Doors & Windows.

Note : Preparation of at least 10 sheets related to the above concepts.

Time: 3 hrs

Semester-II

M. Marks : 50

1. Drawing of Floors.
2. Drawing of Stairs.
3. Drawing of RCC Slab, Beam, Lintel, Chhajja.
4. Drawing of Internal water Supply & sewerage.

Note : Preparation of at least 15 sheets related to the above concepts.

Paper-III

WORKSHOP CALCULATION

Time : 2:30 hrs.

**THEORY
SYLLABUS
Semester-I**

**Marks : 45
Int. Ass./CCE:20
Total Marks: 65**

Basics :

- (i) Log and its application.
- (ii) Mensuration Area and volume of plane and solid figures, i.e. Triangle, quadrant, circle, cube, cylinder, cone, pyramid, prism and their application, calculation of weight of various products of related cost.
- (iii) T-ratio and its simple application.

SC IENCE :

Unit of weight length, time and temperature, M.K.S., E.P.S and S.I Units and their conversion.

Simple Machines :

Calculation of Mechanical Advantage, Velocity ratio and efficiency of simple machines.

Time : 3 hrs.

**THEORY
SYLLABUS
Semester-II**

**Marks : 65
Int. Ass./CCE:30
Total Marks: 95**

Design :

Simple stress, strain, Hooke's law, Modulus of elasticity, stress - strain -elastic limit, yield point, ultimate stress and breaking stress. Factors of safety, load due to impact and their simple numerical problems.

Design of Riveted Joint : lap and butt joint according to ISI code.

Design of nut and bolt (square and hexagonal) according to ISI code Design of stair case.

Design of simple spread footing foundation for basing on thumb rule method.

- (i) Partition wall/boundary wall
- (ii) Load bearing wall (One brick, one and a half brick and two bricks)
- (iii) Pillors (One brick and one and a half brick)

Definitions :

Coping, Parapet, drip course Line Gola, Terrace, Carnice, slab, R.C.C. lintel, R.C.C. chhajja, string course, plinth level, D.P.C., Footing, Offset, Foundation blocks, Basement, Groundfloor, 1st floor, 2nd floor, third floor, fourth floor.

(iv) MECHANICAL SERVICING (Genl.)

SYLLABUS

LATHE MACHINE AND OPERATIONS

THEORY

Semester-I

Paper-I

Time : 2 hrs.

Marks : 30

Int. Ass./CCE:10

Total Marks: 40

1. INTRODUCTION TO BASICS :

Simple sketches of mechanical hand tools. Brief description of machine tools and equipments. Different types of operations by different types of machine tools (only name and diagrams). Safety precautions in using machine tools.

2. INTRODUCTION TO LATHE :

Lathe, centre lathe, General purpose lathe machine, Types of lathe machine. Specification of lathe machine, safety rules of the workshop. Principle of Lathe.

3. LATHE MACHINE PARTS :

Study of various lathe parts and sub assemblies of the lathe & their functions, Accessories viz. Lathe centers, face plate, dressing plate, angle plate, three jaw chuck, four jaw chuck, collect, mondrel, steady rest, moving rest, Tail stock, taper turning attachments. Description of the above accessories giving their sketches.

SEMESTER-II

THEORY

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

1. CUTTING TOOLS :

Cutting tools geometry of single point cutting tool, various angles and their values for cutting different metal jobs, Classification, types of cutting tools. Special purpose tools viz. facing tool, parting off tool, threading tool. Boring tool, knurling tool, Tool material, classification, composition, properties and application of High carbon steel, High speed steel, carbide, ceramic and diamond.

2. LATHE MACHINE TERMINOLOGY

Taper, Taperturning, use of taper, Explanation of taper, Calculations for taper, conicity : Speed, Feed, Depth of cut.

3 LATHE OPERATIONS :

Centring, Simple Turning, Stepturning, Facing, Drilling, Boring, Tapering, knurling, Parting off Taper, chamfering, Finishing.

4. CALCULATIONS FOR THREAD CUTTING :

Explanation of simple gear train and compound gear train. Calculation for change wheels metrics thread on English lead screw. Cutting multiple threads. Brief description with dies feed gear box.

5. TURRET AND CAPSTAN LATHES

Difference between centre, capston and turret lathes. Specifications scope and applications of turret and capston lathe in production shop. Machine details such as head stock, work holding devices, turret head, stops and trips, tools and equipments, turret and capston lathe accessories, tool layout operations

LATHE MACHINE AND OPERATIONS**Time : 3 hrs.****PRACTICAL
Semester-I****Marks : 25**

- I. Holding of job in four jaw chuck, centering with the help of check method, scribe and cutting tool.
- II. Setting the tool in tool port : Plain turning, facing and parting off M.M.S Dies as per given dimensions by teacher.
- III. Step turning on M.S. Bar, as per dimensions given by teacher.

Time: 3 hrs**Semester-II****M. Marks : 50**

- I. To do grinding of single point cutting tool according to specific geometry.
- II. Taper turning and knurrling and chamfering, threading.
- III. Drilling and Boring.
- IV. To practice on dismantling and assembling of different accessories and case and maintenance of lathe machine.

Paper-II**Time : 2 hrs.****ENGINEERING MATERIAL****Theory
Semester-I****Marks : 30****Int. Ass./CCE: 10****Total Marks: 40****I. INTRODUCTION :**

Materials classification - Metals, Ferrous and Non ferrous, Metals and Non metals. Different non-metals - plastic-rubber and wood.

II. PROPERTIES OF MATERIALS

Physical and mechanical properties. Physical properties as colour, weight etc.

Mechanical properties as Strength, elasticity, plasticity, ductilities britlness, moleability, hardness, toughness. Technological properties, Machinability, For mability, Welderbility Measurement of hardness-brinell and Rockwell.

III. FERROUS METALS

Mineral ores, Different types of ores of metallurgical. Definitions, Description of pig iron. Process, working of Blast furnance, typed cast iron, wrought iron: composition, Properties and uses. Steel: composition, properties and uses.

IV. STEEL AND ALLOYSTEEL :

Introduction: Composition of MS in %age of properties and uses of steel manufacturing of carbon steel. Basic constituents of steel, Iron-Carbon equilibrium Diagram, Composition, properties and uses of special alloy steel such as - chromium, nickel, stainless steel High carbon steel, High speed steel, Molybdenum, tungsten and vanadium steel.

SEMESTER-II**THEORY****Time: 2 hrs****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45****I. HEAT TREATMENT**

Definition, Advantages of Heat treatment, Effect of heat on steel, methods of heat treatment i.e. Normalising, Annealing, Hardening, Tempering, case hardening, cyaniding, Nitriding, Flame hardening etc.

II. MECHANICAL WORKING OF METALS

Introduction, Mechanical working (Process), Hot working, Principle methods of hot working i.e. Roling (Hot and Cold) Drawing, extracting and Forging (only drop Forging).

III. SHEET METALS AND PIPE FITTINGS

Introduction, Types of sheets, thickness of sheet metals, (in mm and in gauge No.) uses of Sheet metal (as required). Layout of sheet metals 4 No.s- Pipe Fittings only discription.

IV. NON FERROUS METALS AND ITS ALLOYS :

Simple introduction properties and uses viz. copper and Aluminium.

V. ANOTHER IMPORTANT ENGG. MATERIAL

Rubber, Plastic, thermoplastic and thermo setting plastic their properties and application, Rubber, Ceramics, wood their applications.

VI. QUALITY CONCEPT

Definition of term "Quality" Introduction to quality standards according to BIS viz. IS.14000 (ISO-9000)

ENGINEERING MATERIAL**Paper-II****PRACTICALS****Time : 3 hrs.****Semester-I****Marks : 25**

- 1) To identify and distinguish between different Engineering materials based on observed, Physical properties- Make a write up.
- 2) To distinguish between the metal steel, cast Iron and high speed steel by spark pattern test on a grinder.
- 3) To Anneal a chisel.

Time: 3 hrs**Semester-II****M. Marks : 50**

- 1) Case carborising by hardening powder.
- 2) Hardening of carborised job by waterquenching and oil quenching.
- 3) Tempering of hardened job.
- 4) To make a funnel and weld/solder its joint.
- 5) Practice on cutting of pipes and make joint of two pipes by socket.

At least two visits to selected industry to give the practical, exposure to students.

Paper-III**ENGINEERING DRAWING****Time : 3 hrs.****PRACTICALS****M. Marks : 65****SYLLABUS****SEMESTER-I****1. INTRODUCTION OF DRAWING INSTRUMENTS & THEIR USE :**

Basic concept of Drawing & Engineering Drawing, Lists of instruments used in Engineering Drawing. Brief knowledge about the instruments. Practice to use all the instruments, Materials used in Drawing. Size of sheet and layout of sheet. Standard sizes of drawing sheets, margine title block etc.

2 GEOMETRICAL CONSTRUCTIONS

Introduction, definition of points, lines, angles, Review of geometrical constructions such as dimensions of straight line and angle. Triangle, quadrilateral, Polygen, circles, to draw parallel lines. To draw perpendiculars, different patterns, tangents- External and internal (minimum 40 cons).

Time: 3 hrs**SEMESTER-II****M. Marks: 95****1. LINES AND LETTERING AND DIMENSIONS CONVENTIONS :**

Lines, materials, solids, Breaks, Conventional representation used in engineering Standard practice for writing single stroke and double stroke in 7:4/6:5. (Note - At methal stage graph paper may be used after some practice student should bear to draw graph.)

Standard practice for numerals dimensioning.

2. SCALES

Representative Factor, simple, reduced & Enlarged scale, diagonal and vernier scales.

3. FREE HAND SKETCHING :

Lines, Circles, Squares, rectangles, areas and curves. Diagram of Solids i.e. Round, cube, rectangular block, Cylindrical block, Cone, Prism, Hexagonal etc. Free hand sketch of locking devices, washer, spring washer, keys etc.

4. ORTHOGRAPHIC PROJECTIONS

Concept of projections, First angle and third angle projections

Simple Examples of orthographic projections of Point, Line & Planes where the Lines are parallel to one of the plane Sketching orthographic views from pictorial views. Orthographic projections of simple machine elements. Orthographic projections of Nut & Bolt (Square as well as hexagonal).

(V) FURNITURE MAKING AND DESIGNING Furniture, Furnishing and Finishing Materials

Paper-I
Time : 2 hrs.

THEORY
Semester-I

Marks : 30
Int. Ass./CCE:10
Total Marks: 40

1. Qualities and use of common timber, various types, characteristics, standard size, cost, selection and use of various types of timber used in furniture making.
2. Structure (Cross section) of wood, various parts and their functions.
3. Conversion of timber.
4. The defects in wood and remedial measures.
5. Decay of wood, causes and preventive measures.
6. Methods of seasoning and preservation of timber.

SEMESTER-II **THEORY**

Time: 2 hrs

Marks: 30
Int. Ass./CCE: 15
Total Marks: 45

1. Standard commercial sizes of wood and their economical use.
2. Characteristics, cost, selection and use of plywood, hardboard, block board, particle board and their suitability in furniture making.
3. Oil paints, constituents and functions, characteristics, covering capacity and polishing techniques.
4. Varnish and polish : Constituents, characteristics, covering capacity and polishing techniques.
5. Chemical preservatives, their use and importance.
6. Canes: different types, characteristics, costs, patterns and methods of cane work.
7. New furniture materials, Acrylic, Fibre glass, leather, plastic and base materials.
8. Knowledge regarding latest ready to use finishing materials available in the market.

Paper-I
Time : 3 hrs.

FURNITURE, FURNISHING AND FINISHING MATERIALS **PRACTICAL** **Semester-I**

Marks : 25

1. Identification of timbers :
2. Identification of defects and diseases in timber.

3. Practice in making oil paints from given ingredients.

Time: 3 hrs

Semester-II

M. Marks : 50

1. Practice in making spirit polish.
2. Practice of painting.
3. Practice of polishing old and new furniture.
4. Market survey of latest furniture materials availability in the market.
5. Practice with latest ready to use finishing materials available in the market.

Paper-II

TOOLS AND PROCESSES

Time : 2 hrs.

THEORY

Semester-I

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

1. Workbench : elements and uses of a workbench.
2. Different types of devices, their selection, characteristics and precautions while using.
3. Description, care, maintenance and use of common hand tools and common sheet metal tools.
4. Tools and gauges used in measuring and marking, their identification and use.
5. Different types of chisels and gauges, their characteristics, uses, precautions in using, sharpening chisels and planes spoke shaves and other sharpening tools like surforms and rasps.
6. Different types of saws, their characteristics, selection and use, precautions, maintenance and repair, Techniques of sawing.

SEMESTER-II

THEORY

Time: 2 hrs

Marks: 30

Int. Ass./CCE: 15

Total Marks: 45

1. Various types of clamping and gripping tools, their characteristics, use and selection.
2. Tools used in driving and pulling nails, their selection, precautions and techniques used in driving and removal of nails.
3. Various types of metal & wooden plants including special purpose planks, their characteristics, selection, uses, precautions, maintenance, cost and availability Techniques of planeing.
4. Techniques of finishing wood by using scraper, abrasive papers and files.
5. Various types of screw drivers, their selection, use and precautions.
6. Various types of drilling tools, their selection, use and precautions while drilling.
7. Description, use and importance of butt joints and lap joints, mortise and tenon joints.

Paper-II

TOOLS AND PROCESS

Time : 3 hrs.

PRACTICAL

Semester-I

Marks : 25

1. **Shop-Floor instructory** : Identification of different types of timbers. Identification, care, maintenance of tools and their parts and safety measures to be observed.

2. **EXERCISES :**

Ex.1. Marking and Sawing practice.

Ex.2. Planeing practice.

Ex.3. Chiselling practice

Time: 3 hrs**Semester-II****M. Marks : 50**

Ex.4. Preparation of lap joint.

Ex.5. Preparation of mortise and tenon joint.

Ex.6. Sanding and finishing practice.

3. Preparation & Polishing of the following :

- | | |
|----------------|--|
| 1) Name Plate, | 2) Simple Notice Board, |
| 3) Book Rack, | 4) Prayer Unit/
Puja Unit with Drawer |
| 5) Table | 6) Cushioned stool |

Paper-III**Time : 2 hrs.****FURNITURE DESIGN****THEORY****Semester-I****Marks : 30****Int. Ass./CCE: 10****Total Marks: 40**

1. Design : Definition, attributes, composition of design, factors influencing design : climate, utility social and economic conditions.
2. Introduction to colours and colour schemes.
3. Sizes of furniture as related to human body, working levels, viewing level for different purpose as per standard designs and practices.

SEMESTER-II**THEORY****Time: 2 hrs****Marks: 30****Int. Ass./CCE: 15****Total Marks: 45**

1. Planning : Principles of furniture set up for a given space, functional utility and aesthetics.

Paper-III**Time : 3 hrs.****FURNITURE DESIGN****PRACTICAL****Semester-I****Marks : 25**

1. At least 15 sheets regarding furniture design should be prepared.
2. Preparation of furniture album with the help of sales literature, newspaper cuttings & allied materials.

Time: 3 hrs**Semester-II****M. Marks : 50**

1. Preparation of design for the following furniture items :

Name plate, simple notice board, side board, table, stool, chair without arms, table with drawers, box type settee, Black Board, Notice Board with glass panels.

2. Preparation of design, for the following furniture items with steel structures.

- 1) Chair with & without arms.

- 2) Study table

- 3) Bench

- 4) Desk

3. Visits to local carpenter workshops/showroom (at least 4 visits).

(VI) MECHANICAL SERVICING (AUTO)
ENGINEERING DRAWING
THEORY
Semester-I
PART-A

Paper-I
Time : 2 hrs.

M. Marks : 30
Int. Ass./CCE: 10
Total Marks: 40

1. Introduction to Engineering drawing, care and use of drawing instruments and material.
2. Free hand lettering on graph paper.
3. Different types of Engineering lines as per I.S.I. specifications. Practice in free hand sketching of vertical, horizontal & inclined lines & geometrical figures such as-triangle, rectangles and circles, polygon, construction of ellipse, parabola and involute of a circle.
4. Conventional representation of different material in sections e.g. shaft, hollow pipe, rectangular, square, angle, channel, I-section etc.

PART B
WORKSHOP PRACTICE

5. Description of hand tools used in automobile shop. Precautions observed in a workshop.

Time: 2 hrs

Semester-II
PART-A

Marks: 30
Int. Ass./CCE:15
Total Marks: 45

1. Drawing sheets of 1st angle and 3rd angle projections of solids.
2. Introduction to rivets and its types. Concepts of auto CAD (Computer Added Design).

PART B
WORKSHOP PRACTICE

3. Description of measuring tools and instruments like outside calliper, inside calliper, vernier calliper, outside micrometer, inside micrometer, Dial gauge, marking block and gauge. Try square, Bevel protector, bench centre, depth gauge, compression gauge, pressure gauge.
4. Surface plate, use of open end spanner, ring spanner, box spanner, sockets, torque, wrenches, adjustable spanner, Alien Key wrench.
5. Introduction to paints.

ENGINEERING DRAWING
PRACTICAL
SEMESTER-I

Time : 3 hrs. **Marks : 25**

1. Use of the hand tools, measuring tools and measuring instrument used in workshop.
2. To practice efficient use of files by producing plane surfaces, straight edges of right angle, fillets and round corners.
3. To learn efficient and accurate use of Hacksaw cutting.

Time: 3 hrs **M. Marks : 50**

1. To make a V notch on a flat surface using chipping method.
2. To learn marking a job using a surface plate, V-block and marking gauge.
3. Fitting a square hole in a M.S. flat.
4. Extraction of a broken stud.
5. Use of hand tools and equipment used in painting and denting.
6. Visit to a nearby mechanical workshop.

Paper-II
Time : 2 hrs.

AUTOMOBILE ENGINE
THEORY
Semester-I

Marks : 30
Int. Ass./CCE: 10
Total Marks: 40

1. Technical terms :

Define Automobile Engine, Power, H.P., I.H.P., B.H.P., F.H.P. Diesel cycle, Auto cycle, stroke, TDC, BDC, Compression Ratio, Swept volume, Clearance volume, Total volume, Mechanical efficiency. Pressure, Heat, Temperature.

2. Engine :

Classification-principle, basic engine operations, 4-stroke, & 2-stroke cycle engine & their difference, spark & compression ignition and their difference.

3. Engine Construction & Mechanism :

Cylinder blocks, crank case, cylinder liner, cylinder head, parts and manifolds, Piston, piston pin, piston ring, connecting rod, crankshaft, cam shaft, flywheel and valves.

Time: 2 hrs

Semester-II

Marks: 30
Int. Ass./CCE:15
Total Marks: 45

1. Ignition system :

Magneto and battery ignition & their difference study of batteries, capacitor discharge ignition system, Distributor, ignition coil, spark plugs, ignition timing, firing order.

2. Fuel system :

- (a) Petrol: Fuel line diagram, fuel feed pump, carburettor-function and working principles, air filter, fuel gauge, inlet and exhaust manifold. Introduction to MPFI system (Multi Point Fuel Injection Systems).
- (b) Diesel: Fuel line, diagram, fuel-injection pump, pressure pipe, fuel injector. Introduction to CRDI (Common Rail Direct Injection System).

3. Engine Cooling system :

Cooling requirement, cooling systems, air cooling and liquid cooling, water jacket, coolant pump, cooling fan, radiator, pressure cap, introduction to thermostat.

4. Lubrication system :

Principles, functions, properties of lubricating oil. Introduction to SAE rating, lubricating system, crank-case ventilation, oil filter, oil pump (gear type and electrical) oil pressure gauge.

Introduction to Charging and starting system :

AUTOMOBILE ENGINE
PRACTICAL
Semester-I

Time : 3 hrs.

Marks : 25

- 1) To study the construction and working of a two stroke single cylinder air-cooled petrol engine using a sectional model.
- 2) To study the construction and working of a four stroke single cylinder air-cooled petrol engine using a sectional model.
- 3) To study the construction and working of a two stroke single cylinder air-cooled diesel engine using a sectional model.

- 4) To study the construction and working of a four stroke single cylinder air-cooled diesel engine using a sectional model.
- 5) To study the construction and working of a four stroke four cylinder in-line water cooled petrol engine.
- 6) To study the construction and working of a four stroke four cylinder in-line water cooled diesel engine.
- 7) To study the construction and working of (a) fuel pump (b) carburettor.
- 8) To study the construction and working of lubricating oil pump.
- 9) To study the construction and working of (a) F-I-pump (b) fuel injector.

Time: 3 hrs**Semester-II****M. Marks : 50**

- 1) To study the construction, working and details of maintenance of distributor assembly.
- 2) Battery Testing
- 3) Spark plug cleaning and adjusting its gap.
- 4) Carburettor servicing.
- 5) Removal, cleaning & refitting of air cleaners.
- 6) Replacement of cylinder head gasket.
- 7) Cleaning of fuel tank and oil sump and refilling.
- 8) To study & sketch the fuel supply system of a multicylinder diesel engine.
- 9) Check engine compression.
- 10) Precautions to be observed before and after starting the engine.

Paper-III**TRANSMISSION SYSTEM****Time : 2 hrs.****THEORY****Marks : 30****SEMESTER-I****Int. Ass./CCE: 10****Total Marks: 40**

1. Classification of automobile, chassis layout of conventional motor vehicle, front-wheel drive, rear engined vehicle, four wheel drive.
2. Clutch : Function of clutch and its principle of working. Types of clutch, constructional details of single plate and multi-plate clutches, Centrifugal clutch, fluid, fly wheel, clutching. Trouble shooting of clutch and its adjustments.
3. Propeller shaft and universal joints, Function of propeller shaft and its constructional details,

Time: 2 hrs**Semester-II****Marks: 30****Int. Ass./CCE:15****Total Marks: 45**

1. Gearbox : Necessity of a gear box, types of gears used, types of gear boxes-sliding mesh, constant mesh, synchro mesh, constructional details of Gearbox, Gear selector mechanism, over running drive, trouble-shooting of gearbox and its adjustments.
2. Hotch kiss drive and torque-tube drive arrangements. Function of universal joint, types of universal joints, their constructional details.
3. Differential : Function of differential and its constructional details. Working principles of differential, differential lock, trouble-shooting of differential and its adjustments.
4. Rear Axle : Function of rear axle and its types, constructional features, trouble-shooting and adjustments.

Paper-III
Time : 3 hrs.

TRANSMISSION SYSTEM
PRACTICAL
SEMESTER-I

Marks : 25

1. The dismount of single plate dry friction clutch from a vehicle. Dismantle, clean the components, inspect report on the condition, repair, reassemble, adjust and remount on the vehicle.
2. To dismount the propeller shaft assembly with universal joints from a vehicle, dismantle, clean, inspect report on the condition, repair, reassemble and remount on the vehicle.
3. To study the chassis layout of two wheeler, three wheeler and 4 wheeler.
4. Flushing and refilling of transmission oil.

Time: 3 hrs

Semester-II

M. Marks : 50

1. To dismount and dismantle the gears of a constant mesh gear box from a vehicle, clean, inspect report on the condition, repair, reasonable, remount and adjust.
2. To dismount and dismantle the synchro mesh, gear-box from a vehicle, clean the components, inspect report on the condition, repair, reassemble and adjust.
3. To dismount the differential unit from a vehicle, dismantle, clean, inspect report on the condition, repair, reassemble, preloading of drive pinion and refit on the vehicle.
4. To dismount the rear axle shafts from a 4 wheel drive, dismantle wheel bearings, oil seals, clean, inspect report on a condition, repair, reassemble, carryout pre-loading adjustment and complete the assembling of oil the components removed.

(vii) COMPUTER TECHNIQUES
COMPUTER FUNDAMENTALS

Paper-I
Time : 2 hrs.

THEORY
Semester-I

Marks : 30
Int. Ass./CCE: 10
Total Marks: 40

Instruction to Computers : Definition, Application of Computers, Characteristics of Computer, Types and generation of Computers, Basic Structure of Computer, Specification of Computer, Data representation within Computer - Bits, Bytes, Kilobytes, Gigabytes, Number System, Memory, Primary memory - RAM, ROM, Secondary memory with respect to structure and file organization - Floppy disk, Hard disk, CD-ROM, Zip Drive, Magnetic tape.

Input/Output Devices : Input Devices-Keyboards, Mouse, Touch Screen, Scanner, Joystick, Output Devices - VDC, Printers.

PROGRAMMING CONCEPTS AND OPERATING SYSTEM

Comparative Study of Computer Languages : Machine Language, Assembly Language, High Level Language, 4GL, Translator, Compiler, Interpreter, Assembler.

Programming Concept & Flow Charting : Problem analysis and problem solving techniques, Algorithm, Flowcharts (detailed practice exercises on mathematical and commercial problems) programming and programming techniques, Pseudo codes.

Operating Systems : Definition, Functions, Different Types of OS, Comparative study of OS, Batch Processing : Multi programming, Time sharing; Real time.

Ms-DOS : Internal Commands - their syntax with options and meaning, limitations and use, External Commands - their syntax with option and meaning, limitations and use (FORMAT, BACKUP, RESTORE, CHKDSK, XCOPY, DISKCOPY, DISKCOMP, ATTRIB, UNDELETE).

MS-WINDOWS AND INTERNET

Ms-Windows 2000/XP (or latest version) : The Windows 2000/XP Environment, Desktop Elements, Active Desktops, Changing the Classic Desktop to Active Desktop, Built-in Toolbars, Starting Programs. The Start Button, Starting from Shortcuts, Starting from My Computer or the Windows Explorer, Working with Windows, Using Menus and Dialog Boxes, Classic Style and Web Style, Choosing a Navigation Style, Mouse Actions with Classic style and Web style, File Tasks, To see What Files are in the Folder Using My Computer, To see what files are in the folder using Windows Explorer, To Create a Folder, To Rename Files or Folders, To Delete Files or Folders, The Recycle Bin, To Retrieve Deleted Files or Folders, To Find a file, Disk Tasks, To Format a Floppy Disk, To Copy a Floppy Disk, Scandisk, Disk De-fragmentation, Application Tasks, To Start a Document from the Start Menu, Shortcuts, To Add an Application to the Start Menu, To Run Programs and Documents Automatically at Startup, To Print a File, Print Manager, To install a Windows Application, To Remove Applications, System Settings, To Set the Date & Time, To Change the Formats of Number, Currency, Date and Time, To install and Delete Fonts, To Customize a Mouse, To Change Display Properties.

Internet : What is Internet, Connection methods, Types of Connections, ISPs, Internet configuration, Browsers - Microsoft Internet explorer, Netscape Navigator.

E-mail : What is e-mail ? Advantages and disadvantages, Sending and receiving messages, Checking mail, Reading Mail, Replying Mail, E-mail software-Outlook Express, Eudora.

Internet Applications : Voice mail, Chatting, Discussion forums, Newsgroup, Entertainment, Information searching, Online education.

Time: 2 hrs

Semester-II

Marks: 30

Int. Ass./CCE:15

Total Marks: 45

MS-WORD AND MULTILINGUAL LEAP OFFICE

Introduction to word processing : Starting MS-WORD, Introduction to menus, sub-menus and tools, Creating a document, Opening a document, Saving a document, Navigation of cursor, Editing text, Formatting text, Viewing documents.

Formatting Document : Line spacing, Paragraph spacing, Setting Tabs, indenting Text, Aligning text, Adding headers and footers; Numbering pages; Inserting a table, Proofing a document, Spell-check utility, Automatic spell-check, Auto text, Auto correct, Printing a Document, Mail Merge.

Leap Office : Need of multilingual software, multilingual software package in detail, Concept of transliteration, Hardware requirements of multilingual software, Installation of different language fonts, Study Key Board layout.

MS EXCEL

Introduction to Ms-Excel

Starting Ms-Excel

Opening a Worksheet

Saving a Worksheet

Spread sheet operations

Entering Numbers, Text, Dates and Time, Formulas

Editing the Worksheet

Deleting Cells, Rows, Columns

Inserting Cells, Rows, Coloumns

What if Analysis

Printing a Worksheet

Formulas and Functions

Entering Formulas

Absolute and Relative Reference of a Cell

Mixed Referencing

Operations in Formulas

Using Text, Date and Time in a Formula

Arrays and Named Ranges

Functions

Entering Functions

Calculations using Functions

Different types of functions in Excel

Charts, Macros and Forms

Creating a Chart

Editing a Chart

Inserting and Deleting in a Chart

Save and Print a Chart

Macros

Creating and Running Simple Macros

Creating and Running Menu Macros

COMPUTER NETWORKS

Network Bases : Models of Network computing - Centralised computing, Distributed computing and collaborative computing.

Network Models - client server, peer to peer, LAN, MAN, WAN.

Connection types and Physical topologies - Ring, Bus, Star, Mesh and Hybrid.

COMPUTER FUNDAMENTALS

Time : 3 hrs.

PRACTICAL Semester-I

Marks : 25

1. COMPUTER OPERATIONS, MS-DOS, MS-WINDOWS 2000/XP

1. Study and Observation of connection of UPS/CVT to mains and computer.
2. Study and practice of various peripherals devices attached to the computer.
3. Starting and shutdown of computer.
4. Opening (or invoking) the application.
5. Closing the application.
6. Operating the various applications at primary level.
7. Methodically operating and mastering the any of the application like Notepad, Wordpad.
8. Installation of DOS.
9. Fine-Tuning MS-DOS.
10. Use of Internal and External Commands of DOS file operation.

11. Creation and usage of batch file - AUTOEXEC.BAT
12. Creation and usage of sys files - CONFIG.SYS
13. Standard file and directory command.
14. Designing and practicing the algorithms and flowcharts of various problems.
15. Installation of Windows.
16. Managing Files and Folders.
17. Create a picture using the Windows Paint application and save in the folder.
18. Study of different menus and submenus in Windows.
19. Working on MS Access, MS Excel, Power Point, MS-Word.

Time: 3 hrs**Semester-II****M. Marks : 50****II. MS-WORD AND MULTILINGUAL LEAP OFFICE**

1. Creating a document with New.
2. Opening an existing document with Open from the specified path.
3. Saving the document using Save, Save as, Save as Web Page-option.
4. Using Page Set-up, Web Preview, Print Preview and Print option.
5. Editing a document : Using Cut, Copy, Paste, Making Block, Find and Replace etc.
6. Viewing a document : Viewing as per the requirement, Setting Toolbars.
7. Formatting a document using various option in Format.
8. Using Tools in MS-WORD.
9. Working on Table in MS-WORD : Creating a table, inserting, deleting rows or columns.
10. Create Windows, edit and print a document file, using MS-WORD.
11. Generate two page document in the regional language using Leap Office.

III. MS EXCEL

Generate and print a graph using Ms-Excel.

IV. Internet and Networking : Demo**Paper-II****Time : 2:30 hrs.****MATHEMATICS AND STATISTICS****THEORY
SEMESTER-I****Marks : 45****Int. Ass./CCE: 20****Total Marks: 65**

Mathematics : Quadratic equation, Trigonometry, Boolean Algebra, Number System, Binary Number System, Octal, Hexadecimal Number System.

Statistics : Mean, Mode, Median, Correlation, Regression, Standard Deviation.

Note : Semester-I Mathematics: Quadratic equation, Boolean Algebra, Number System, Binary Number System, Octal, Hexadecimal Number System.

Time: 3**Semester-II****Marks: 65****Int. Ass./CCE: 30****Total Marks: 95**

Mathematics : Mathematics : Trigonometry

Statistics : Mean, Mode, Median, Correlation, Regression, Standard Deviation.

Paper-III
Time : 2 hrs.

PROGRAMMING IN C
THEORY
Semester-I

Marks : 30
Int. Ass./CCE: 10
Total Marks: 40

1. PROGRAMMING TECHNIQUES

Identification of problem

Problem solving techniques

Algorithms

Flowcharts

Pseudo code

2. FUNDAMENTAL OF C PROGRAMMING

History of C

Structure of a C Program

Data types : int, float, char, double, void

Constant and Variables

Variable Declaration

Integer, real, float, character, logical variable, string variable

Constants

3. OPERATORS AND EXPRESSIONS

Arithmetic operators

Relational operators

Logical operators

Expressions

Bit operation ? operator, & operator, *operator

Type casting, type conversion

4. DECISION MAKING AND LOOPING

if-then

if-then - else ladder

Nested if-else

for loop

while

5. ARRAYS AND FUNCTIONS

Arroys declaration

One and two dimensional arroys

Functions - Fundamentals

General Form

Function arguments

Return value

Time: 2 hrs

Semester-II

Marks: 30
Int. Ass./CCE:15
Total Marks: 45

6. BASIC I/O

Formatted Input/Output

Unformatted Input/Output

Program design examples.

Summation of a set of numbers

Generation of fabonacci sequence

Generation of positive prime numbers

Finding key smallest element

Sarting by insertion

7. STRUCTURED PROGRAMMING

Control structures

Do/While

Switch statements

Break and continue

Exit () function

Go to and label

8. ADVANCED FEATURES IN FUNCTIONS

Type modifiers and storage class specifies for a data types

Scope Rules

Local and Global variables

Scope rules for functions

Parameter passing : Call-by-Value and Call-by-Reference

Calling functions with Arrays

argc and argv

Recursion

Basic Concept

Design examples

*Tower of Hanoi

**Recursive Quick sort

9. DYNAMIC DATA STRUCTURE IN C

Pointers

the & and *operators

Pointer expression

Pointer Assignments

Pointer arithmetic

Pointer comparison

The dynamic allocation functions-malloc and calloc

Pointer vs Arrays

Arrays of Pointers

Pointers to pointers

Initialising pointers

Pointer to functions

Functions returning Pointers

Function with variable number of Arguments

Structure

Basic of Structures

Declaring a Structures

Referencing Structure elements

Array of Structures

Passing Structures of functions

Passing entire Structure to Function

Structure Pointers.

Declaring a Structure pointer

Using Structure Pointers

Arrays and Structures within Structures Uses.

Unions

Declaration

Uses

Enumerated Data Types

Linked list insertion, deletion and search

10. FILE HANDLING IN C

The file pointer

File accessing functions

fopen, fclose, putsc, getc, fprintf

C pre-processor

define

include

undef

conditional compilation directives # if, # else, #elif, #endif, # ifdef and # ifndef C Standard Library and Header Files

Header files, stdio.h, ctype.h, string.h, stdlib.h, time.h etc.

Standard library functions

String functions

Mathematical functions

Variable argument list functions

Utility functions

Character class test functions.

Paper-III

Time : 3 hrs.

**PROGRAMMING IN C
PRACTICAL
Semester-I**

Marks : 25

1. Programs using problem mainly computational to illustrate expression and operator precedence.
2. Problem relating to sequence, selection and iteration.
3. Problem relating to arrays.
4. Problem which involve manipulation of two dimensional arrays such as addition, subtraction, multiplication and transpose.

Time: 3 hrs

Semester-II

Marks: 50

1. Problems which made use of and manipulate arguments to main (as per M.S.S.).
2. Problem involving manipulation of arrays of structures.
3. Problems involving the manipulations.
4. Problems for dynamic, storage allocation such as link list, stack.

**(VIII) MANUFACTURING OF SPORTS GOODS
WOOD BASED SPORTS GOODS**

Paper-I

Time : 2 hrs.

**THEORY
SEMESTER-I**

**Marks : 30
Int. Ass./CCE: 10
Total Marks:40**

1. Introduction and importance of wood based sports goods industry. Scope of sports goods (wood) industries in India.
2. Raw material, auxiliaries, their availability and uses in sports goods. Types of woods used in sports Industry and reasons of its utilization.
3. Tools and Equipments :
Various types tools, tool kit, working bench and its sketch, Tool Kit necessity, Uses of tools and equipments used for making different items. Maintenance of tools and equipments.
4. Safety precautions to be observed while working in the workshop.
5. Drawing, Designing and standard specifications of the following :
 - (1) Steel Badminton racket.
 - (2) Table Tennis Bat.

Time: 2 hrs

Semester-II

**Marks: 30
Int. Ass./CCE:15
Total Marks: 45**

1. Seasoning, its advantages and various methods of seasoning of wood. Various defects of wood. Seasoning method generally used in India and Reasons for its use.
2. Various wood joints used in the manufacture of various sports goods.
3. Various types of adhesives & their usages.
4. Drawing, Designing and standard specifications of the following :
 - (1) Hockey Stick.
 - (2) Chess Board.

- (3) Golf stick.

**WOOD BASED SPROTS GOODS
PRACTICAL
SEMESTER-I**

Time : 3 hrs.

Marks : 25

1. Identification and usages of tools.
2. Sharpening of tools.
3. Practice in making joints
4. Making the following sports items :
 - (1) Steel Badminton racket.
 - (2) Table Tennis Bat.

Time: 3 hrs

Semester-II

Marks: 50

5. application of adhesives.
6. Making the following sports items :
 - (3) Hockey Stick.
 - (4) Chess Board.
 - (5) Gutting of badminton racket

Paper-II

LEATHER AND SYNTHETIC BASED SPORTS GOODS

Time : 2 hrs.

**THEORY
SEMESTER-I**

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

1. Introduction and importance of leather & synthetic based sports goods industry. Scope of sports goods (leather) industry in India.
2. Raw material, auxiliaries, their availability and uses in sports goods. Major leathers of different animals used in this industry.
3. Reasons of use of synthetic sheets in these days in this industry specially for all types of balls like Foot-Ball, Volley Ball, Basket Ball and other balls comes in this categories.
4. Various types of machinery and equipments used and their maintenance.
5. Drawing, Designing and standard specifications of the following.
 - (1) Football

Time: 2 hrs

Semester-II

Marks: 30

Int. Ass./CCE:15

Total Marks: 45

1. Proper selection of leather components from finished leather.
2. Hide and sketch of Hide, labeling its sketch, best quality hide and its growth, reason of best part of Hide.
3. Drawing, Designing and standard specifications of the following.
 - (1) Volleyball 32 panels.
 - (2) Cricket Ball 4/2 panels.

LEATHER AND SYNTHETIC BASED SPORTS GOODS**Time : 3 hrs.****PRACTICAL
SEMESTER-I****Marks : 25**

1. Identification and usages of tools and dies.
2. Use of machinery of panel cutting.
3. Practice in joining of panels.
4. Making the following sports items.
 - (1) Foot ball

Time: 3 hrs**Semester-II****Marks: 50**

1. Making the following sports items.
 - (1) Volley ball
 - (2) Cricket ball (Semi-Finish)

Paper-III**TEXTILE BASED SPORTS GOODS****Time : 2 hrs.****THEORY
SEMESTER-I****Marks : 30****Int. Ass./CCE: 10****Total Marks: 40**

1. Introduction and importance of textile based sports goods industry. Scope of textile based sports goods industry in India.
2. Raw material, auxiliaries, their availability and uses in sports goods. Kind of leather used in this industry.
3. Various types of machinery and equipments used and their maintenance..

Time: 2 hrs**Semester-II****Marks: 30****Int. Ass./CCE:15****Total Marks: 45**

1. Pattern, its importance, Detail Study of Raw materials used for making patterns.
2. Drawing and designing of pattern cutting pertaining to all types of sports gloves, viz. batting gloves, wicket-keeping gloves, football goalkeeper gloves, hockey goalkeeper gloves, industrial gloves, boxing gloves, goal gloves.

Paper-III**TEXTILE BASED SPORTS GOODS****Time : 3 hrs.****PRACTICAL
SEMESTER-I****Marks : 25**

1. Identification and usages of tools.
2. Cutting of components.

Time: 3 hrs**Semester-II****Marks: 50**

1. Practice in pattern cutting.
2. Making the following items.
 - (1) Batting gloves.
 - (2) Wicket-keeping gloves.
 - (3) Football goal-keeper gloves.
 - (4) Hockey goal-keeper gloves.
 - (5) Industrial gloves.

(IX) MANUFACTURING OF LEATHER GOODS**Paper-I**
Time : 2 hrs.**PATTERN CUTTING AND DESIGNING****THEORY**
Semester-I**Marks : 30**
Int. Ass./CCE: 10
Total Marks: 40

1. Introduction and importance of tools required in pattern cutting and designing.
2. Safety precautions to be observed while working in workshop.
3. Basic principles of pattern cutting.

Time: 2 hrs**Semester-II****Marks: 30**
Int. Ass./CCE:15
Total Marks: 45

1. Material used in pattern cutting.
2. Drawing and designing of pattern cutting viz. Wallets/Purses, Dak Pad, File Cover, etc.
3. Various types of machinery and equipments used and their care and maintenance.
4. Pattern cutting and designing of children Soft Toys.

PATTERN CUTTING AND DESIGNING**Time : 3 hrs.****PRACTICAL**
Semester-I**Marks : 25**

1. Identification and usage of tools.
2. Sharpening and preparation of tools.

Time: 3 hrs**Semester-II****Marks: 50**

1. Care and maintenance of tools.
2. Practice of pattern cutting viz. Wallets/Purses, Dak Pad, File Cover etc.
3. Practice on hand sketches of different patterns viz. Wallets/Purses, Dak Pad, File Cover etc.

Paper-II**NOVELTY LEATHER ITEMS****Time : 2 hrs.****THEORY**
Semester-I**Marks : 30**
Int. Ass./CCE: 10
Total Marks: 40

1. Introduction and scope of the leather goods industry and its status in India with special reference to Punjab.
2. Machinery and tools used in leather goods industry.
3. Raw material, auxiliaries, their availability, proper utilization and uses in leather goods industry.

Time: 2 hrs**Semester-II****Marks: 30**
Int. Ass./CCE:15
Total Marks: 45

4. Types of threads and adhesives used in leather goods.
5. Introduction of various kinds of leather and its processing and general defects, measurement. Machines and tools required for measurement of hides and skins.
6. Sequence of operations while making: Wallet/purses, Dak Pad, Waist belts, Goggles cases, Refrigerator handle cover and File Cover etc.
7. Cost Calculation of the above, finished goods.

**NOVELTY LEATHER ITEMS
PRACTICAL
Semester-I**

Time : 3 hrs.

Marks : 25

1. Identification and working of machinery and tools.
2. Identification of various types of raw materials.
3. Sample collection of various types of leather, raxine and their linings.

Time: 3 hrs

Semester-II

Marks: 50

1. Various types of skiving and folding.
2. Preparation and practice of wallet.
3. Preparation and practice of waist belt.
4. Preparation and practice of File Cover.

Paper-III

**TRAVELLING LEATHER GOODS
THEORY
Semester-I**

Time : 2 hrs.

Marks : 30

Int. Ass./CCE: 10

Total Marks: 40

1. Introduction and importance of travelling leather goods.
2. Various types of raw material required for the manufacturing of traveling leather goods.

Time: 2 hrs

Semester-II

Marks: 30

Int. Ass./CCE:15

Total Marks: 45

3. Sequence of operations while making the following : conductors cash bag, school bag, air bag, part folio, TV Cover, lady purse, office bag and Shopping Bag etc.
4. Cost calculation of the above finished goods.
- 5.

Paper-III

**TRAVELLING LEATHER GOODS
PRACTICAL
Semester-I**

Time : 3 hrs.

Marks : 25

1. Identification and selection of raw material used in traveling leather goods.
2. Practice of various types of sewing machines and stitching.
3. Pattern cutting of conductor cash bag, lady purse, air bag, portfolio, school bag, TV cover, Office bag, shopping bag.

Time: 3 hrs

Semester-II

Marks: 50

4. Preparation and practice of Conductor cash bag, lady purse, air bag, portfolio, TV Cover, Office bag, shopping bag and their cost calculation.

**(V) HUMANITIES & OTHERS GROUP
COMMERCIAL ART**

Paper-I

**COMMERCIAL ART AND DRAWING
PRACTICAL
SEMESTER-I**

Time : 5 hrs.

Marks : 65

Structure of Question Paper

The question paper will consist of 2 parts.

No.1

(40 marks)

This part will be based upon unit I of the syllabus. Two question will be asked and the student will do any one of these . The distribution of marks will be as on next page:

Composition	15 marks
Expression	15 marks
Finishing	10 marks
No.2	(25 marks)

This part relates to sessional work . Students will show at least 10 articles relating to drawing any lay-out which have been designed by him during the whole academic year.

**SYLLABUS
Semester-I**

Topics :

1. Drawing from file : Head Study :

Or

Drawing from Still file. Monochrome/Colours.

Sessional Work

At least Six articles should be prepared by the Candidates.

The Practical Examiner will award the marks.

Time: 5 hrs

Semester-II

Marks: 95

Structure of Question Paper

The question paper will consists of 2 parts.

No. 1

70 marks

This will be based upon Unit II of the syllabus. Any two questions will be asked and the student will attempt any one. The distribution of marks will be as follows :

Composition	25 marks
Expression	25 marks
Finishing	20 marks

No. 2

25marks

This part relates to sessional work. Students will show atleast 10 articles relating to Drawing and layout which have been designed by him during the whole academic year.

**SYLLABUS
Semester-II**

2. Drawing from nature: Flowers, Trees, Land scape Painting, Birds, Animals etc.

Or

Study of Techniques of illustrations : Pen, ink/wash.

Sessional Work

At least Nine articles should be prepared by the Candidates.

The Practical Examiner will award the marks.

Paper-II

Time : 5 hrs.

DESIGN AND LAYOUT

PRACTICAL

SEMESTER-I

Marks : 65

Structure of Question Paper

The question paper will consist of 2 parts.

No.1

(40 marks)

This part will be based upon unit I of the syllabus. Two question will be asked and the student will do any one of these . The distribution of marks will be as on next page:

Composition	15 marks
Expression	15 marks
Finishing	10 marks

No.2 **(25 marks)**

This part relates to sessional work . Students will show at least 10 articles relating to drawing any lay-out which have been designed by him during the whole academic year.

SYLLABUS
Semester-I

Topics :

1. Lettering and Typography

Calligraphy

Copying from old manuscripts

Study of various scripts, Gurmukhi, English, devanagri and Roman etc.

Preparation of Simple layout, Design and Lettering

Or

Book and Magazine cover

Design and their colour schemes

At least six articles should be prepared by the candidates.

The practical examiner will award the marks.

Time: 5 hrs

Semester-II

Marks: 95

Structure of Question Paper

The question paper will consists of 2 parts.

No. 1 **70 marks**

This will be based upon Unit II of the syllabus. Any two questions will be asked and the student will attempt any one. The distribution of marks will be as follows :

Composition	25 marks
Expression	25 marks
Finishing	20 marks

No. 2 **25 marks**

This part relates to sessional work. Students will show atleast 10 articles relating to Drawing and layout which have been designed by him during the whole academic year.

SYLLABUS

2. Preparation of Poster based on combination of Lettering and simple illustration.

3. Sessional Work

At least nine articles should be prepared by the candidates.

The practical examiner will award the marks.

Paper-III
Time : 3 hrs.

TECHNICAL THEORY OF COMMERCIAL ART
THEORY

Structure of Question Paper

1. In all eight questions will be set from the prescribed syllabus. Students will have to attempt any five questions from these. Each question will carry 16 marks. A question may have two or more parts. The questions should be evenly distributed from the syllabus.

SYLLABUS
Semester-I

Marks: 45
Int. Ass./CCE: 20
Total Marks: 65

1. Introduction and importance of Commercial Art in Life.
2. Important Art Terminologies used in Basic Design, Point, Line, Curve, Form, Tone and Texture, Monochrome, Basic Colours, Secondary Colours, Warm, Cool, Harmonious and Contrast Colours.
3. Principles of good composition.
 Distribution of Space, Balance, Rhythm, Balance, Abstraction and Stylization and Proportion.

SYLLABUS
Semester-II

Marks: 65
Int. Ass./CCE: 30
Total Marks: 95

1. Use of Perspective in illustration i.e.
 In landscape Painting, Anatomy and still life.
2. Various types of painting Techniques
 Transparent water colours Goache.
 Opaque water colours Goache.
3. Batik Technique, Mural Technique.
 Fresco, Gil Painting Technique.
4. Various types of material and equipment used in illustrations.
5. Stencilling and spray work.
6. Print Making : Lino cut, Relief Printing.
 Block Making, Silk Screen Printing from line and half tone blocks letter and offset printing.
7. Principles of Poster design.
 Layout and composition and book illustrations.
8. Sketching and its importance in Commercial art.
9. Qualities of good commercial artist (Semester-I)