

***Semester Wise Syllabus of
Class-XII (Vocational Stream)
(2010-11)...onward***
**Subject: General Foundation Course
Semester-I**

Time: 3 hrs

Theory

Marks: 35

Internal Assessment: 05

Total Marks: 40

Structure of Question Paper

1. All questions are compulsory to attempt.
2. The question paper will comprise of two parts (Part-I and Part-II)

Part-I will consist of five objective type questions carrying 1 mark each. The answer of each question should not exceed more than one sentence.

Part-II will consist of five questions carrying 6 marks each. The answer of each question should not be more than two pages of the answer sheet. In this part internal choice will be given in any three questions.

**Syllabus
Semester-I**

1. Establishing the unit.
2. Availing Incentives, Support and Procedural Requirement.
3. Resource Mobilization
4. Market Assessment.

**Class-XII (Vocational Stream)
Subject: General Foundation Course
Semester-II**

Time: 3 hrs

Theory

Marks: 50

Internal Assessment: 10

Total Marks: 60

Structure of Question Paper

1. All questions are compulsory to attempt.
2. The question paper will comprise of three parts (Part-I, Part-II and Part-III)

Part-I will consist of five objective type questions carrying 1 mark each. The answer of each question should not exceed more than one sentence. It will be from the prescribed syllabus for Semester-I and Semester-II.

Part-II will consist of five questions carrying 3 marks each. The answer of each question should not exceed one page of the answer sheet.

Part-III will consist of five questions carrying 6 marks each. The answer of the question should not exceed more than two pages of the answer sheet. In this part internal choice will be given in any three questions.

Syllabus Semester-II

Enterprise Management

- a) Decision Making
- b) Material Management
- c) Financial Management
- d) Marketing Management
- e) Industrial Relation and Personnel Management
- f) Growth and Development, Modernization and Diversification.
- g) Industrial Visit and Presentation of Project Report.

NOTE: - On the Job Training (OJT) marks will be 120 instead of 60. This will be conducted every year for three weeks after the completion of the syllabus i.e. at the end of 2nd Semester.

Class-XII (Vocational Stream) 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 80 MARKS THEORY ARE:-**

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

Semester-I

Time: 2 hrs

Theory

Marks: 30

Internal Assessment: 10

Total Marks: 40

Structure of Question Paper

1. All questions are compulsory to attempt.
2. The question paper will comprise of two parts (Part-I and Part-II).

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

Part-II will consist of four questions carrying 6 marks each with internal choice for any two questions. 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 but Part-I will be from the prescribed syllabus of Semester-I and Semester-II.

For question paper carrying 55 marks (Theory) each.

Semester-I

Time: 3 hrs

Theory

Marks: 55

Internal Assessment: 10

Total Marks: 65

Structure of Question Paper

1. All questions are compulsory to attempt.
2. The question paper will comprise of two parts (Part-I and Part-II).

Part-I will consist of seven objective type questions carrying 1 mark each. The answer of each question should not exceed more than one sentence.

Part-II will consist of eight questions carrying 6 marks each with internal choice for any four questions. The answer of each question should not be more than two pages of the answer sheet.

For question paper carrying 80 marks (theory) each.

Semester-II

Time: 3 hrs

Theory

Marks: 80

Internal Assessment: 15

Total Marks: 95

Structure of Question Paper

1. All questions are compulsory to attempt.
2. The question paper will comprise of two parts (Part-I and Part-II).

Part-I will consist of fourteen objective type questions carrying 1 mark each. The answer of each question should not exceed more than one sentence. It will be from the prescribed syllabus for Semester-I and Semester-II.

Part-II will consist of eleven questions carrying 6 marks each with internal choice for any five questions. The answer of each question should not be more than two pages of the answer sheet.

**Structure of Question Paper of Elective Subjects
(Practical)**

For Question Paper carrying 25 marks (practical) each (except those specified at **)

****SUBJECTS HAVING 80 MARKS PRACTICAL ARE:-**

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

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 (From Syllabus)	(10 Marks)
Minor Practical (From Syllabus)	(5 Marks)

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

Semester-II

Time: 3 hrs

Maximum Marks: 50

As such in Syllabus Booklet for class 12 Vocational Stream.

For Question Paper carrying 55 marks (practical) each .**Semester-I**Time: 3 hrs or according to
requirement of practical

Practical.

Marks: 55

Internal Assessment: 10

Total Marks: 65

The structure of Question Paper carrying 55 marks (practical) are given below:

ENGINEERING AND TECHNOLOGY GROUP
(a) ENGINEERING DRAWING AND DRAFTING
Paper-I ENGINEERING DRAWING

Time : 3 hrs **Practical** **Marks: 55**

Structure of Question Paper

- | | |
|---|----------|
| 1. The question paper will consist of five parts. | 5 marks |
| 2. Line lettering & dimensions. | 10 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. | 10 marks |
| 5. Project work. | 10marks |

(b) MECHANICAL SERVICING (GENL.)

Paper-III ENGINEERING DRAWING

Time : 3 hrs **Practical** **Marks: 55**

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** 15 marks
 - 3. Development of surface and interpenetration of solids.**
- or**
- Assembly Drawing** 20 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

Time : 5 hrs **Practical** **Marks: 55**

Structure of Question Paper

The question paper will consist of 3 parts.

No.1 (20 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 | 7 marks |
| Expression | 7 marks |
| Finishing | 6 marks |

No.2 (25 marks)

This part will be based upon unit II of the syllabus. Two questions will be asked and the student will do any one of these.

Distribution of marks will be as follows:

Composition	9 marks
Expression	8 marks
Finishing	8 marks

No.3 (10 marks)

This part relates to sessional work . Students will show at least 15 articles relating to drawing any lay-out which have been designed by him during the whole academic year.

Paper-II DESIGN AND LAY-OUT

Time : 5 hrs

Practical

Marks: 55

Structure of Question Paper

The question paper will consist of 3 parts.

No.1 (20 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	7 marks
Expression	7 marks
Finishing	6 marks

No.2 (25 marks)

This part will be based upon unit II of the syllabus. Two questions will be asked and the student will do any one of these.

Distribution of marks will be as follows:

Composition	9 marks
Expression	8 marks
Finishing	8 marks

No.3 (10 marks)

This part relates to sessional work . Students will show at least 15 articles relating to drawing any lay-out which have been designed by him during the whole academic year.

**For Question Paper carrying 80 marks (practical) each
Semester-II**

Semester –II

Total Marks : 45

Important Ornamental trees, Shrubs, Climbers and groundcovers, their selection based on landscape value and use, their planting and maintenance.

To

Gardening operation like staking, disbudding and pinching.

PAPER-I

Landscaping and Floriculture

Time:3hrs

Practical

Marks:50

Syllabus

Semester –II

Identification of Seasonal flowers.

Preparation of nursery, beds and sowing of seeds of seasonal flowers.

Propagation of rose, chrysanthemum and marigold.

Harvesting , cleaning, grading and packing of cut flowers

To

Visits to flower growers fields, gardens and flower shows and markets.

PAPER-II

Commercial Crops

Time: 2hrs

Theory

Marks: 30

Syllabus

Internal Assessment: 10

Semester-II

Total Marks: 40

Introduction, present status and future prospects of plantation, spice, medicinal and aromatic crops.

To

Medicinal Crops: Dioscorea, periwinkle, sarpagandha, ashwagandha, steroid bearing solanum, isabgol, senna and liquorice, alowera, glow, tulsi, satsia.

PAPER-II

Commercial Crops

Time: 3hrs

Practical

Marks: 25

Syllabus

Semester-II

Spice Crops

To

Medicinal and Aromatic Crops

PAPER-II

Commercial Crops

Time: 3hrs

Theory

Marks:30

Syllabus

Internal Assessment:15

Semester-II
Aromatic Crops
To
Vermiculture
Total Marks:45

PAPER-II
Time:3hrs
Commercial Crops
Practical
Syllabus
Semester-II
Beekeeping
To
Vermiculture
Marks: 50

PAPER-III
Time: 2hrs
Post Harvest Technology and Preservation
Theory
Syllabus
Semester-II
Marks: 30
Internal Assessment :10
Total Marks: 40

Maturity standards for fruits and vegetables
To

Principles and methods of preservation by low temperature, chemical additives, salt, sugar, heat and drying.

PAPER-III
Time: 3hrs
Post Harvest Technology and Preservation.
Practical
Syllabus
Semester-I
Marks: 25

Determination of maturity standards for fruit and vegetables.
To

Preservation of fruits and vegetables by low temperature, Chemical additives, salt, sugar, heat and drying.

PAPER-III
Time:2hrs
Post Harvest Technology and Preservation
Theory
Syllabus
Semester-II
Marks: 30
Internal Assessment: 15
Total Marks: 45

Factors affecting spoilage of fruits role of enzymes and bacteria. Bacterial food poisoning, sulphuring and sulphitation.
To

Evaluation of quality of preserved/processed products.

PAPER-III	Post Harvest Technology and Preservation	
Time:3hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	
	Study of spoilage of fruits	
	To	
	Canning of fruits and vegetables	

(ii) AGRI-BUSINESS

PAPER-I	Agricultural Marketing	
Time:2hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks : 40

Basic Concepts
To

Approaches to study of Marketing the functional approach, the institutional approach, the commodity approach and behavior system or decision making approach.

PAPER-I	Agricultural Marketing	
Time:3hrs	Practical	Marks:25
	Syllabus	
	Semester-I	

Visit to farm holdings to appraise the selling behavior of farmers.
Visit to a village market to analyze its importance, nature of participants and different transactions.

Visit to agriculture input distributor to study about his business activities
To

Visit to assistance Director of Agriculture office to know about fertilizer control order, pesticide control order.

PAPER-I	Agricultural Marketing	
Time:2hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

Marketing functions- Principle marketing functions, assembling, processing and dispersion. Secondary services, grading, packing, transporting, storing, financing, assuming, risk and selling.

To

Management of distribution channels, market segmentation and marketing mix, sales promotion tools.

PAPER-I	Agricultural Marketing	
Time:3hrs	Practical	Marks:50
	Syllabus	
	Semester-II	

Commodity Market survey to study different market channels (important five commodities in the locality)

To

Visit to warehousing co-operation to study its functions and services, methods of storage, storage forest control measures.

Visit to Seed Certificate Office to know about seed act.

Visit to any one agricultural input from to study the sales promotion activities.

PAPER -II	Agricultural Finance	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester - I	Total Marks: 40
	Agricultural Finance	
	Financial Institutes: <i>Commercial banks, agricultural development branches, history, organization sources of capital, functions.</i>	

To

National Bank for Agricultural and Rural Development(NABARD),history, organization, functions.

PAPER -II	Agricultural Finance	
Time : 3 hrs	Practical	Marks : 25
	Syllabus	
	Semester - I	

Study of basic concept used in Agricultural finance (Capital Finance, credit, debt, indebtedness, asset, liability, overdues outstanding shares, dividend)

To

Visit to rural banks to study the organizational, procedure for financing and repayment schedule.

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

The Punjab Schedule Caste Land Development and Finance Corporation.

To

The Department of Horticulture (Pb).

PAPER -II	Agricultural Finance	Marks : 50
Time : 3 hrs	Practical	
	Syllabus	
	Semester - II	

Visit to the head office/branch of Punjab Schedule Caste Land Development and Finance Corporation to study the organization and procedure for financing.

To

Visit to the head office/ branch of Punjab Agro Industry Corporation to study the agricultural and procedure for financing

PAPER -III	Agricultural Equipment	
Time : 2 hrs	Theory	Marks : 30
	Syllabus	Internal Assessment : 10
	Semester - I	Total Marks : 40
	Farm Power	

To

Tillage Implements

PAPER -III	Agricultural Equipment	
Time : 3 hrs	Practical	Marks : 50
	Syllabus	
	Semester - I	

Collection of data regarding various engines and available in the market for irrigation purposes

To

Demonstration of hitching practices of various tillage implement at site

PAPER -III	Agricultural Equipment	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester - II	Total Marks: 45
	Seeding machinery	
	To	
	Harvesting	

PAPER -III	Agricultural Equipment	
Time : 3 hrs	Practical	Marks : 50
	Syllabus	
	Semester - II	

Identification of different parts of sprayers.

To

Demonstration of working of various special equipments i.e. sugarcane crusher, maize shelter, chaff cutter, groundnut decorticator and rice shelter at the locally available site.

(iii) REPAIR AND MAINTENANCE OF POWER DRIVEN FARM MACHINERY

PAPER -I	Farm Power and Tractors	
Time : 2 hrs	Theory	Marks : 30
	Syllabus	Internal Assessment : 10
	Semester - I	Total Marks : 40
	General	
	To	
	Engine	

PAPER -I	Farm Power and Tractors	
Time :3 hrs	Practical	Marks : 25
	Syllabus	
	Semester - I	
	From 1 to 10 Practical	

PAPER -I Farm Power and Tractors
 Time : 2 hrs Theory Marks : 30
 Syllabus Internal Assessment : 15
 Semester - II Total Marks : 45
 Power Transmission
 To
 Hydraulic & Hitch System

PAPER -I Farm Power and Tractors
 Time : 3 hrs Practical Marks : 50
 Syllabus
 Semester - II
 From 11 to 16 Practical

PAPER -II Post Harvest Machinery and renewable energy Gadget
 Time : 2 hrs Theory Marks : 30
 Syllabus Internal Assessment : 10
 Semester - I Total Marks : 40
 Post Harvest Machinery
 To
 Sugarcane Crushers

PAPER -II Post Harvest Machinery and Renewable Energy Gadget
 Time : 3 hrs Practical Marks : 25
 Syllabus
 Semester -I
 First four Practical

PAPER -II Post Harvest Machinery and Renewable Energy Gadget
 Time : 2 hrs Theory Marks : 30
 Syllabus Internal Assessment: 15
 Semester - II Total Marks: 45
 Chaff Cutters
 To
 Smokeless Chulhas/Improved Stoves

PAPER -II Post Harvest Machinery and Renewable Energy Gadget
 Time : 3 hrs Practical Marks : 50
 Syllabus

Semester -II
Last Six Practical

PAPER –III Time : 2 hrs	Management of Farm Power and Machinery Theory Syllabus Semester - I Factors in Analysis of Cost of operation To Storage of materials, machines and supplies	Marks : 30 Internal Assessment : 10 Total Marks : 40
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PAPER –III Time : 3 hrs	Management of Farm Power and Machinery Practical Syllabus Semester - I First Three Practical	Marks : 25
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PAPER –III Time : 2 hrs	Management of Farm Power and Machinery Theory Syllabus Semester - II Record Keeping To Consultancy	Marks : 30 Internal Assessment : 15 Total Marks : 45
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PAPER –III Time : 3 hrs	Management of Farm Power and Machinery Practical Syllabus Semester - II Last Five Practical	Marks : 50
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II BUSINESS AND COMMERCE GROUP
(i) OFFICE SECRETARYSHIP

PAPER –I Time : 2 hrs	Modern Office Practices-II Theory Syllabus Semester - I Unit-1 Office Communication To Postal Services Unit-II Office Manuals and Procedures	Marks : 30 Internal Assessment : 10 Total Marks : 40
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PAPER-II Time:3 hrs	Shorthand English Practical Syllabus Semester-II Practical of Sr.No.2 and 3 Same for Hindi as well as Punjabi Medium	Marks:50
PAPER-III Time:2 hrs	Typewriting-English Theory Syllabus Semester-I Topics at Sr. No. 1, 2, 3 and 4	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-III Time:3 hrs	Typewriting-English Practical Syllabus Semester-I Practical of Sr.No.1 (only)	Marks: 25
PAPER-III Time:2 hrs	Typewriting- English Theory Syllabus Semester-II Topics at Sr. No. 3, 5, 6, 7 and 8	Marks: 30 Internal Assessment: 15 Total marks: 45
PAPER-III Time:3 hrs	Typewriting- English Practical Syllabus Semester-II Practical of Sr.No. 2, 3 and 4 Same for Hindi as well as Punjabi Medium	Marks: 50

(ii) ACCOUNTANCY AUDITING

PAPER-I Time:3 hrs	Fundamental of E-Business Practical Syllabus Semester-I Practical of Sr.No.1, 2 and 3	Marks: 25
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PAPER-I	Fundamental of E-Business	
Time:2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40
	Unit-I Fundamental of Information Technology	
	To	
	Unit- 3E-Payment	
	Unit-4 E- security	
	To	
	Unit-6 E-Marketing	
PAPER-I	Fundamental of E-Business	
Time:3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	
	Practical of Sr.No.1, 2 and 3	
PAPER-I	Fundamental of E-Business	
Time:3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	
	Practical of Sr.No 4 and 5	
PAPER-II	Principles of Management and Economics	
Time:3 hrs	Practical	Marks: 55
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 65
	Principles of Management (I to VI)	
PAPER-III	Principles of Management and Economics	
Time:3 hrs	Theory	Marks: 80
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 95
	Economics (I to VI)	
PAPER-III	Book Keeping and Accountancy	
Time:3 hrs	Theory	Marks: 55
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 65

Accounting for Partnership
Reconstitution of Partnership
Dissolution of Partnership

PAPER-II	Book Keeping and Accountancy	
Time:3 hrs	Theory	Marks: 80
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 95
	Accounting Nor- For-Profit Organization	
	Accounting for Share and Debenture Capital	
	Classification of Audit	

III HOME SCIENCE GROUP

(i) FOOD PRESERVATION

PAPER-I	Food Processing	
Time : 2 hrs.	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Food Processing -Definition of terms, unit operation, types of unit operation, small & large scale processing.
2. Processing by heat - Pasteurization and sterilization, processing of vegetable and fruit by heat.
3. Canning – General outlines of canning unit operations, i.e receiving, selecting, weighing, sorting, preparing, blanching, filling, exhausting, seaming, sterilizing, cooling, packing, labeling, warehousing & dispatching.

PAPER-I	Food Processing	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Washing, Sterilizing, disinfecting bottles and cans.
2. Pasteurization and sterilization of fruit and vegetable juices in bottles.
3. Visit to Canning/ Bottling unit to observe application of seam checking gauge, micrometer, pressure gauge, vacuum gauge, cut out analysis of can etc.
All practicals to be recorded in file along with procedures, analysis and samples.

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

1. Processing and canning of various seasonal fruits such as apples, pears, mangoes, papaya, and vegetables like beans, tomatoes, carrots, potatoes, and peas.
2. Spoilage of canned fruits and vegetables, causes and their control.
3. By- products - utilization of fruit and vegetable waste like lemon, orange, guava, mangoes banana, grapes, tomatoes, peas and spinach.

PAPER-I	Food Processing	
Time : 3 hrs.	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Canning of mango, pineapple, citrus fruits, papaya, peas, tomato & spinach/ saag.
2. Utilization of by- products in preparation of lemon peel pickle, orange peel marmalade, and citrus peel candy.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-II	Plant Management	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Selection of site, factory layout plan, water supply, drainage, labour, equipments forward and backward linkage.
2. Water types, significance of chemical and bacteriological qualities and management of water. Impact of hard water on equipment, food and containers, chlorination of water and its importance in food processing.
3. Detergents and cleaning agents- types and selection of clearing agents for food industry.

PAPER-II	Plant Management	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Visit to food factories and report writing on plant lay-out.
2. Planning lay out of factory, making charts for lay-out for a cannery.
3. Determination of hardness of water.

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

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

1. Hygiene and sanitation - Hygienic standards for plant and staff, disinfection in a food processing unit and Waste disposal of plant.
2. Control of pests and rodents in a food factory.
3. Study of equipments & their maintenance.
4. Book keeping, balance sheet and profit-loss analysis.
5. Project report writing.

PAPER-II	Plant Management	
Time : 3 hrs	Practical	Marks:50
	Syllabus	
	Semester-II	

1. A project report on setting up of a food factory.
 2. A report on sanitary standards of a food factory.
 3. Practical training to carryout measures for pest control.
 4. Cleaning and maintenance of equipments.
 5. Procedure and filling-up of required documents i.e. loan forms, licenses, electric connections, FPO returns, sales tax returns etc.
- All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Food Packaging	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Need and functions of packaging. Modes and economics in packaging of foods.
2. Types of traditional and modern packaging materials such as O.T.S. cans, bottles, P.V.C, L.D.P.E., H.D.P.E., laminators, retort pouch, PET Bottles, Tetra packs and permeability for oxygen and moisture.
3. Paper packing- paper as a container butter paper, wax paper, cellophane paper.

PAPER-III	Food Packaging	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Observing the packing of foods in food industry.
2. Market survey for availability of packing materials.
3. Suitability of butter paper, wax paper, cellophane and other papers.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Food Packaging	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Skin packs, blister packs - their utility in food packing, importance and selection.
2. Crushing material for packing food, wood shearing, paper shearing, aerosils, thermocols and others.
3. Corrugated boards- importance, criteria for selection.
4. Wooden containers, their replacements with changing situations.
5. Use of strips, seals and similar material (veils) for sealing boxes for local and export markets.

PAPER-III
Time : 3 hrs

Food Packaging
Practical
Syllabus
Semester-II

Marks: 50

1. Preparation of a scrap book with samples of different packaging materials.
2. Measurements of closure caps, wad and their identifications.
3. Exhibition of food products at production centres. All practicals to be recorded in file along with procedures, analysis and samples.

(ii)COMMERCIAL GARMENT DESIGNING AND MAKING

PAPER-I
Time : 2 hrs

Dress Making
Theory
Syllabus
Semester-I

Marks: 30
Internal Assessment: 10
Total Marks: 40

1.Fashion -

- a) Origin- costumes from medieval to modern period(Sultanate period, Mughal period, pre-British & British period)
 - b) Fashion – Definition and related terminology - style, hi-style, classic, fads, chic etc .
 - c) Factors favouring and retarding fashion.
 - d) Fashion cycle.
 - e) Role of fashion and fashion designer in the garment industry
2. Silhouette - Types, knowledge of current silhouettes.

PAPER-I
Time : 3 hrs

Dress Making
Practical
Syllabus
Semester-I

Marks: 25

1. Designing, drafting, layout, cutting , stitching and finishing of the following garments:-
 - (a) Bush Shirt
 - b) Kurta

- c) Pyjama
2. Design file - Stepwise illustration exploring the design plan, drafting, layout, paper patterns and other embellishments.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-I	Dress Making	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Special dress designs for children and adults with special emphasis on (a) sleeves and cuffs (b) collars (c) pockets (d) yokes.
2. Fitting - Method of taking trial, finding out the defects in fitting and suggesting remedies for the defects.
3. Study of traditional embroideries- Phulkari, Kashida, Chicken- kari, Kantha and Dasuti.

PAPER-I	Dress Making	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Designing, drafting, layout, cutting , stitching and finishing of the following garments:-
 - a) Shirt
 - b) Shirt top
 - c) Nighty
2. Fitting - Fitting trials, finding defects and rectifying the same.
3. Ironing folding and packing of finished garments.
4. Using innovative traditional embroidery stitches and techniques on the garments designed and stitched.
5. Embroidery file showing samples of different embroideries and other embellishments prevalent.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-II	Commercial Clothing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Calculation of standard body measurements from chest/ bust and height measurement.
2. Grading its importance and method.
3. Knowledge and use of special equipments for button hole making, buttoning, overlocking, embroidery, picoh, eyelet, embroidery stitches and button covering.
4. Estimation of (a) fabric (b) length of lay (c) raw material and accessories according to design, sizes, order size and other criteria.

PAPER-II	Commercial Clothing	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Drafting of Formal ladies suit.
2. Drafting of Formal Baby Frock.
3. Designing of Home textiles products - Quilt cover, Pillow cover, cushion cover Bag ,Tray mat, Dinning tale mat, Table Runner etc.
4. Computerised/ manual grading of pattern one size up and one size below(for children, women and men).
5. Exercises in estimation of (a) fabric (b) length of lay (c) raw material and accessories according to design, size, order size and other criteria. All practicals to be recorded in file along with procedures, analysis and samples.

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

1. Study of processes and stages of commercial(bulk) production (laying, marking, cutting, ticketing, assembling and distribution of components, stitching, assembling of garments, finishing of raw edges, checking, laundering, ironing, folding and packing).

2. Visit to different related industries and reporting regarding lay-out, equipments, safety, storage and personnel etc.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Unit Management	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Lay- out plans for efficient and smooth working of units.
 - (a) Effective and maximum utilization of space available.
 - (b) Emphasis on safety measures.
 - (c) Care and maintenance of equipment and machines.
 - (d) Effective storage of raw material.
 - (e) Knowledge regarding the working of a garment manufacturer/ export industry and the job responsibility of the persons employed at different levels.
 - (f) Knowledge and management of records prevalent in the garment industry.

PAPER-III	Unit Management	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

Making a file with the following information:-

1. Lay-out plans for interior for the same.
2. Using various cleaning agents and techniques for maintenance of various types of equipments in the unit.

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

(iii) TEXTILE DESIGNING

PAPER-I	Textile Testing and Finishing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Study of hard and soft water, methods of removing of hardness of water.
2. Study of various kinds of advanced finishing processes used in textiles Shearing, Raising, Sinzeing, Decatizing, Sanforization, Mercerisation, Sizing, Starching, Crease Resistance, Calendaring, Anti-static Water Resist and Water proof finish, Fire Resist and Fire proof finish, , Mildew proofing and Moth proofing, their importance and uses.

PAPER-I	Textile Testing and Finishing	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Detailed study of textiles fibres (by Physical and Chemicals Methods) to identify the dye applicable to the given fibre
 2. Qualitative and quantitative analysis of different blends- terry- cot ,terry-wool, terry-viscose, cots- wool, cotton- cashmilon.
- All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-I	Textile Testing and Finishing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Introduction to dry and wet cleaning their importance and uses.
2. Detailed study of various types of machines used for dry cleaning and washing of different textiles.
3. Dry cleaning of different textiles.
4. Cleaning of carpets, galicha, sofa sets and wall hangings.
5. Folding and packing of the finished articles.

PAPER-I	Textile Testing and Finishing	
Time : 3 hrs	Practical	Marks:50
	Syllabus	
	Semester-II	

1. Practice of dry cleaning woolen garments.
 2. Practice of wet cleaning.
 3. Practice of testing shrinkage of cotton.
 4. Colour fastness testing with grey scale.
- All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-II	Textile Designing and Printing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Classification of Printing styles - Direct, Discharge and Resist styles.
 Direct Style - Block and Screen Printing.
 Discharge Style - Oxidation and Reduction Printing
 Resist Style - Batik , Tie &Dye and Chemical dsResist Printing
2. Making of screens by direct and photographic method and printing with screen on various textiles
3. Introduction to computer aided designing.

PAPER-II	Textile Designing and Printing	
Time : 3 hrs	Practical	Marks:25
	Syllabus	
	Semester-I	

1. Practice of printing cotton fabric with Batik style and Chemicals Resist Printing.
 2. Practice of printing cotton fabric with various Tie and Dye Techniques.
 3. Practice of Screen Making.
 4. Introduction to computer aided designing.
- All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-II	Textile Designing and Printing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Printing of cotton fabric using Direct Dyes, Rapid Fast Dyes, Reactive Dyes, Azoic and Indigo-sol Dyes with Direct Style.
2. Printing of synthetic and blended fabrics with Pigment Colours, Disperse and Reactive dyes.
3. Different types of printing machinery – Flat Bed, Rotary and Roller Printing Machine - their operations, techniques, advantages and disadvantages.
4. After treatment given to printed textile - Drying, steaming, ageing & washing.

PAPER-II	Textile Designing and Printing	
Time : 3 hrs	Practical	Marks:50
	Syllabus	
	Semester-II	

1. Practice of printing cotton fabric with Direct, Rapid Fast , Indigosol and Reactive Dyes with Block, Screen and Spray Printing methods.
2. Practice of printing a blended fabric-blended, terry-cot, cots-wool, with pigment colours with screen printing using different colours.
3. One article each to be worked out with a combination of two or more techniques e.g. Tie and Dye & Block-printing ; Batik and fabric printing ; Spray and Screen Printing.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Textile Dyeing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Scouring and bleaching of viscose, acetate rayon, nylon, terylene and acrylic(cashmilon) .
2. Application of direct dyes on viscose.
3. Dyeing of nylon with acid dyes and direct dyes.

PAPER-III	Textile Dyeing	
Time : 3 hrs	Practical	Marks:25
	Syllabus	
	Semester-I	

1. Practice of scouring and bleaching of Acrylic, viscose and terrycot.
 2. Practice of dyeing nylon with Acid and Direct dyes.
- All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Textile Dyeing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Dyeing of polyester with disperse dyes using conventional / carrier and high temperature / High pressure method.
2. Properties and applications of basic dyes on cashmilon.
3. Dyeing of nylon with acid dyes and direct dyes.
4. Study of machinery used in textile dyeing- Winch machine, Jigger machine, Beam dyeing machine, Jet dyeing machine, Soft flow machines, cone dyeing machine and Cabinet dyeing machine.

PAPER-III	Textile Dyeing	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Practice of dyeing of polyester with Disperse dyes using carrier method.
 2. Practice of dyeing cashmilon with Dasic dyes.
 3. Practice of dyeng Terry-cot .
 4. Practice of matching shades with direct dyes.
- All practicals to be recorded in file along with procedures, analysis and samples.

(iv) TEXTILE CRAFT (WEAVING)

PAPER-I	Fabric Structure and Designing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. An introduction to compound and complex weaves – Broken twill, Mixed twill, Transposed twill, Fancy twill, Satin and Sateen, Mockleno, Bedford-cord, Corduroy and Huck-a-back, Swivel, Double cloths.
2. Colour – Theory of colour ,Qualities of colours, Colour wheel, Colour schemes, Psychological impact of colours and factors affecting choice of colours.

PAPER-I	Fabric Structure and Designing	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Preparation of warp , drafting, denting and drawing for plain, twill, mockleno, Bedford-cord and huck-a-back weaves on the powerloom.
2. Colour – Wheel, tins and tones, combinations and schemes.
3. Sketching of floral and geometrical motifs.
All practicals to be recorded in file along with procedures, analysis and samples.
Visit to Museums, Art galleries, Craft Meals and report writing of the craft appraised.

PAPER-I	Fabric Structure and Designing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Weaving defects and their remedies.
2. Cloth analysis – Recognition of warp and weft, Picks / inch, ends/ inc, Pattern of colour scheme, weight of warp , weight of weft and quality of cloth.
3. Introduction to Computer Aided Designing.

PAPER-I	Fabric Structure and Designing	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Analysis of cotton,silk and worsted cloth samples with different weaves and patterns .
2. Removal of cloth defects on the loom.
3. Introduction to computer aided designing.
All practicals to be recorded in file along with procedures, analysis and samples.
Visit to Museums, Art galleries, Craft Meals and report writing of the craft appraised.

PAPER-II	Textile Testing and Dyeing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Physical testing for Count of yarn, twist of yarn,yarn ply, types of yarn, tensile strength of yarn, shrinkage of cloth, crease resistance, strength of cloth and abrasion test.
2. Preparation of material before dyeing i.e. scouring, boiling, washing, bleaching.
3. Dyeing process on cotton, wool, silk and synthetic (Polyster) fibres using Directdyes, Acid dyes, Basic dyes, Reactive dyes, Vat dyes,

Indigosol dyes, Mordant dyes, Azoic dyes and Disperse dyes according to their dyeing suitabilities.

PAPER-II	Textile Testing and Dyeing	
Time : 3 hrs	Practical	Marks:25
	Syllabus	
	Semester-I	

1. To find the yarn count of given piece of cloth by Besseley balance and by physical balance.
2. To find the shrinkage percentage of a given sample
3. Preliminary treatment to cotton & woollen cloth or yarn before dyeing.
4. Practice of sample dyeing on cotton yarn/fabric with direct, vat, Azoic and reactive dyes.

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

PAPER-II	Textile Testing and Dyeing	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Chemical testing for damage to cellulose and animal fibres, colour fastness to washing, Sunlight, rubbing, bleaching and Crocking .
2. Quantitative and qualitative analysis of blends – Terricot, terrywool, viscot and cotswool
3. Dyeing of silk and wool by Chrome and Procion dyes. Dyeing of polyester by disperse dyes.

PAPER-II	Textile Testing and Dyeing	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. To find the crease resistance angle of a given sample
2. To find percentage of different fibres from a given sample

3. Practice of sample dyeing on woolen yarns / Fabric with acid and reactive dyes.
 4. Practice of sample dyeing on silk and wool with chrome and Prociondyes.
 5. Practice of sample dyeing on polyester with disperse dyes
- All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Powerloom Mechanics and Operations	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Types of powerlooms– Air jet, water jet, Dornier, Automatic, Shuttleless and Computerized looms.
2. Parts of power loom and their functioning.
3. Introduction to different types of dobbies – Knowles' positive doobby, Negative doobby, Single chain, Double chain and Hetter sley
4. Different motions of the powerlooms –
 - a) Primary – shedding, pickling & beating up.
 - b) Secondary - taking up and letting off.

PAPER-III	Powerloom Mechanics and Operations	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Identification of different parts of powerloom.
 2. To prepare lattice as per given design or sample.
- All practicals to be recorded in file along with procedures, analysis and samples.
- Visit to reputed power loom industry, on the job experience and report writing for the same.

PAPER-III	Powerloom Mechanics and Operations	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Introduction to different types of Jacquards- Single Cylinder, Single Lift Jacquard, Double Cylinder, Double lift Jacquard
2. Different motions of the powerlooms –
Auxillary - warp stop motion, weft fork motion, loose reed motion, fast reed motion.
3. Checking of powerlooms before operation and general precautions.
4. Maintenance of powerlooms.
5. Making of lattice and pegging according to the design of the cloth to be woven on a doobby powerloom.
6. a) Sketching of design on graph paper, card punching and lacing to make a chain for the jacquard.
b) Introduction to Piano Cards Cutting Machine.

PAPER-III

Powerloom Mechanics and Operations

Time : 3 hrs

Practical

Marks: 50

Syllabus

Semester-II

1. To prepare chain for the jacquard as per given design.
2. Practice of weaving of cloth on plain, doobby and jacquard loom.
All practicals to be recorded in file along with procedures, analysis and samples.
Visit to reputed power loom industry, on the job experience and report writing for the same.

(v) KNITTING TECHNOLOGY

PAPER-I

Textile Yarn Calculations and Garment Making

Time : 2 hrs

Theory

Marks: 30

Syllabus

Internal Assessment: 10

Semester-I

Total Marks: 40

1. Definition of count.
2. Method of finding count in Indirect System.
3. Method of finding weight in Indirect System.
4. Method of finding length in Indirect System.
5. Different types of garments made from knitted fabrics.

PAPER-I	Textile Yarn Calculations and Garment Making	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Adjustment of the knives of the over lock machine
2. Identification & functioning of different parts of over lock machine.
3. Adjustment of the needle of over lock machine.
4. Adjustment of the of the loops of the over lock machine.
5. Method of calculation cost per piece in knitting industry.

All practicals are to be included in file along with procedures

PAPER-I	Textile Yarn Calculations and Garment Making	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. Method of finding the count in Direct System.
2. Method of finding length in Direct System.
3. Method of finding weight in Direct System.
4. Conversion from
 - a. Indirect to Direct system.
 - b. Direct to Indirect system.
5. Brief explanation of machines used for sewing knitted garments. (Over lock, Flat lock, Sewing machine etc.)
6. Different size charts of Garments.

PAPER-I	Textile Yarn Calculations and Garment Making	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Drafting of Pull-over, Slipover, Cardigan and undergarments (Vests and Under-wears)
2. Cutting and making of V-neck slip-over.
3. Cutting and making of pull-over
4. Cutting and making of half-sleeve vest.
5. Board pressing of knitted garments.
6. Mending, pressing, labeling, folding and packing of finished product.

All practicals are to be included in file along with procedures

PAPER-II	Circular Knitting	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Different types of welts
2. Effects of good winding in knitting.
3. Different types of knots used in Knitting Industry.
4. Cam set of simple circular Knitting Machine

PAPER-II	Circular Knitting	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Identification of cams from a cam-system of a circular knitting machine.
2. Formation of welt on a circular knitting machine.
3. Disassembling & assembling of cam set/system.
4. Jobbing-on & Running on operations.
5. Setting of stitch-length for stitch/loop setting.
6. Threading of yarn from bobbin stand/creel to yarn feeder and guide

All practicals are to be recorded in file along with procedures.

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

1. Different types of sinkers and their different parts with diagram
2. Knitting movements of Latch Needle with holding down sinker.
3. Knitting movements of Latch Needle with Loop forming sinker.
4. Explain Jacquard in knitting.
5. Explanation Pattern Wheel Mechanism with diagram.

PAPER-II	Circular Knitting	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Transferring of loop stitch from one needle to another needle.
2. Adjustment of center and timing of dial and cylinder.
3. Calculation of the designing area of two/four pattern wheel circular machine.
4. Drafting of design on graph paper.
5. Filling of Bits in pattern wheels according to design.
6. Setting of pattern wheels with cylinder and knitting a designed fabric.

All practicals are to be recorded in file along with procedures.

PAPER-III	Fashioned Knitwear	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

1. Identification and functions of different parts of hand flat jacquard knitting machine.
2. Explaining starting sequence of hand flat jacquard knitting machine.
3. Producing a plain knitted fabric on hand flat jacquard knitting machine.
4. Explaining with diagram the cam set of Hand Flat Jacquard Knitting Machine.

PAPER-III	Fashioned Knitwear	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	

1. Identification & functions of different parts of Hand Flat Jacquard Knitting Machine.
2. Disassembling and assembling of the parts of Hand Flat Jacquard Knitting Machines.
3. Jobbing- on operation, Running- on operation and winding off operation.

4. Starting sequence of the machine.
All practicals to be recorded in file along with procedures, analysis and samples.

PAPER-III	Fashioned Knitwear	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

- Producing a 1 x 1 & 2 x 2 rib on hand flat jacquard knitting machine.
- Explaining with diagram the loop-formation of Latch- Needle on hand flat jacquard knitting machine.
- Explaining with diagram the tuck formation of Latch- Needle on hand flat jacquard knitting machine.
- Types of knitted fabric produced on a Hand Flat Jacquard Knitting Machine.
- Knitting of fashion garments
 - Narrowing
 - Widening
- Basic knowledge regarding electronic machines.

PAPER-III	Fashioned Knitwear	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

- Plain knitting 1 X 1 rib and 2 X 2 rib on hand flat machine.
- Adjustment of Stitch-cam for stitch setting.
- Adjustment of Brushes & Yarn Guides.
- Producing (i) Deeca-Design (ii) Rack- Design, (iii) Jacquard-Design,(iv) Tuck- Design.
- Knitting-(i) Half cardigan (ribs) (ii) Full cardigan(ribs).
- Knitting-(i) Pull-over (ii) Slip-over.
All practicals to be recorded in file along with procedures, analysis and samples.

(IV) ENGINEERING AND TECHNOLOGY GROUP
(i) MAINTENANCE AND REPAIR OF ELECTRICAL
DOMESTIC APPLIANCES

PAPER-I Time:2hrs	Elements of Electrical Technology Theory Syllabus Semester-I Topics at Sr.No. 1 and 2	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-I Time: 3hrs	Elements of Electrical Technology Practical Syllabus Semester-I Practical at Sr.No. 1 to 15	Marks: 25
PAPER-I Time:2hrs	Elements of Electrical Technology Theory Syllabus Semester-II Topics at Sr.No. 3 and 4	Marks: 30 Internal Assessment: 15 Total Marks: 45
PAPER-I Time:3hrs	Elements of Electrical Technology Practical Syllabus Semester-II Practical of Sr.No16 to25	Marks: 50
PAPER-II Time: 2hrs	Electrical Domestic Appliances Theory Syllabus Semester-I Topics at Sr.No. 1 to 5	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-II Time: 3hrs	Electrical Domestic Appliances Practical Syllabus Semester-I Practical of S.No1 to5	Marks: 25

PAPER-II
Time:2hrs
Electrical Domestic Appliances
Theory
Syllabus
Semester-II
Topics at Sr. No. 6 to 10
Marks: 30
Internal Assessment: 15
Total Marks: 45

PAPER-II
Time: 3hrs
Electrical Domestic Appliances
Practical
Syllabus
Semester-II
Practical of S.No6 to9
Marks: 50

PAPER-II
Time:2 hrs
Material and Workshop Practice
Theory
Syllabus
Semester-I
Topics at Sr. No. 1 to 3
Marks: 30
Internal Assessment: 10
Total Marks: 40

PAPER-III
Time:3 hrs
Material and Workshop Practice
Practical
Syllabus
Semester-I
Practical of S.No1 to6
Marks: 25

PAPER-III
Time: 2 hrs
Material and Workshop Practice
Theory
Syllabus
Semester-II
Topics at Sr. No. 4, 5 and 6
Marks: 30
Internal Assessment: 15
Total Marks: 45

PAPER-III
Time:3 hrs
Material and Workshop Practice
Practical
Syllabus
Semester-II
Practical of S.No7 to13
Marks:50

(ii) REPAIR AND MAINTENANCE OF RADIO AND TELEVISION

PAPER-I T.V Transmission and Reception

Time:2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40

TV Transmission and Pulse Circuits: Camera Scanning standards and synchronization composite video signals.

Transmitters: Principle, characteristic, block diagram (sound and picture), channel band width, Principle of amplitude and frequency modulation, advantages and disadvantages.

T.V Antenna: Principle, folded dipole, director and reflector, feeder cables, balun, booster amplifiers, installation and testing UHF and VHF converters.

Semester-I

PAPER-I	T.V Transmission and Reception	
Time : 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	
	Practical at Sr. No. 5, 7 and 8 (a to h)	

PAPER-I	T.V Transmission and Reception	
Time : 3 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total Marks: 45

1. T.V Transmission and Pulse Circuits :
Pulse circuits – multivibrators, blocking oscillators, differentiating and integrating circuits.
2. T.V Reception
3. Comparison of a T.V Receiver with Visual Display unit

PAPER-I	T.V Transmission and Reception	
Time : 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	
	Practical at Sr. No. 1 to 4 and 6	

PAPER-II	Test and Measuring Instruments	
Time : 2 hrs	Theory	Marks: 30

Syllabus
Semester-I
Test Signal Generators

Internal Assessment: 10
Total Marks: 40

PAPER-II
Time : 3 hrs

Test and Measuring Instruments
Practical
Syllabus
Semester-I
Practical at Sr. No. 4 (a to d)

Marks: 25

PAPER-II
Time : 2 hrs

Test and Measuring Instruments
Theory
Syllabus
Semester-II
Test and Alignment
And
F.M Receiver Section

Marks: 30
Internal Assessment: 15
Total Marks: 45

PAPER-II
Time: 3 hrs

Test and Measuring Instruments
Practical
Syllabus
Semester-II
Practical at Sr. No. 1, 2 and 3

Marks: 50

PAPER-III
Time: 2 hrs

T.V Servicing
Theory
Syllabus
Semester-I
Topic at Sr. No. 1 to 4

Marks: 30
Internal Assessment: 10
Total Marks: 40

PAPER-III
Time : 3 hrs

T.V Servicing
Practical
Syllabus
Semester-I
Practical at 1(a) and 2

Marks: 25

PAPER-III
Time: 2 hrs

T.V Servicing
Theory
Syllabus

Marks: 30
Internal Assessment: 15

Semester-II
Topic at Sr. No. 2 and 3
Total Marks: 45

PAPER-III
Time: 3 hrs
T.V Servicing
Practical
Syllabus
Semester-II
Practical at Sr. No. 1 (b to f)
Marks: 50

(iii) ENGINEERING DRAWING AND DRAFTING

PAPER-I
Time : 3 hrs
Engineering Drawing
Practical
Syllabus
Semester-I
Topic at Sr. No. 1, 2 and 3
Marks: 55
Internal Assessment: 10
Total Marks: 65

PAPER-I
Time : 3 hrs
Engineering Drawing
Practical
Syllabus
Semester-II
Topic at Sr. No. 4, 5 and 6
Marks: 80
Internal Assessment: 15
Total Marks: 95

PAPER-II
Time : 2 hrs
Workshop Practice
Theory
Syllabus
Semester-I
Topic at Sr. No. 1 and 2
Marks: 30
Internal Assessment: 10
Total Marks: 40

PAPER-II
Time : 3 hrs
Workshop Practice
Practical
Syllabus
Semester-I
Practical at Sr. No . 1, 2 and 3
Marks: 25

PAPER-II
Time : 2 hrs
Workshop Practice
Theory
Marks: 30

Syllabus
Semester-II
Topic at Sr. No. 3, 4, and 5

Internal Assessment: 15
Total Marks: 45

PAPER-II
Time : 3 hrs

Workshop Practice
Practical
Syllabus
Semester-II
Practical at Sr. No. 4, 5, 6, 7 and 8

Marks: 50

PAPER-III
Time: 2 hrs

Reproduction of Blue Prints
Theory
Syllabus
Semester-I
Topic at Sr. No. 1, 2, 3 and 4

Marks: 30
Internal Assessment: 10
Total Marks: 40

PAPER-III
Time: 3 hrs

Reproduction of Blue Prints
Practical
Syllabus
Semester-I
Practical at Sr .No. 1 to 5

Marks: 25

PAPER-III
Time : 2 hrs

Reproduction of Blue Prints
Theory
Syllabus
Semester-II
Topic at Sr. No. 5 to 9

Marks: 30
Internal Assessment: 15
Total Marks: 45

PAPER-III
Time: 3 hrs

Reproduction of Blue Prints
Practical
Syllabus
Semester-II
Practical at Sr. No. 6 to 11

Marks: 50

(iv) MECHANICAL SERVICING (GENL.)

PAPER-I
Time : 2 hrs

Fitting and Welding
Theory
Syllabus
Semester-I

Marks: 30
Internal Assessment: 10
Total Marks: 40

Fitting: (i) Hand Tools
(ii) Mechanical Measurements
Welding: (i) Principles and Application

PAPER-I Time : 3 hrs	Fitting and Welding Practical Syllabus Semester-I Practical at Sr. No. 1,2,3,5 and 11	Marks: 25
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PAPER-I Time : 2 hrs	Fitting and Welding Theory Syllabus Semester-II	Marks: 30 Internal Assessment: 15 Total Marks: 45
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Welding :

- (ii) Oxy-Acetylene Welding
- (iii) Electric Arc Welding
- (iv) Special Welding Techniques
- (v) Simple Instruction Mig -Tig.

PAPER-I Time: 3hrs	Fitting and Welding Practical Syllabus Semester-I Practical at Sr. No. 4, 6 to 10, 12 and 13	Marks: 50
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PAPER-II Time: 3hrs	Machine Tool Operation Theory Syllabus Semester-I Topics at Sr. No.1 to 4	Marks: 30 Internal Assessment: 10 Total Marks: 40
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PAPER-II Time: 3hrs	Machine Tool Operation Practical Syllabus Semester-I Practical at Sr.No. I to VII and VIII	Marks: 25
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PAPER-II	Machine Tool Operation	
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Time: 3hrs	Theory Syllabus Semester-II Topics at Sr. No.5 to 9	Marks: 30 Internal Assessment: 15 Total Marks: 45
PAPER-II Time: 3hrs	Machine Tool Operation Practical Syllabus Semester-II Practical at Sr. No. II to VI and IX	Marks: 50
PAPER-III Time: 3hrs	Engineering Drawing Practical Syllabus Semester-I Practical at Sr.No. 1, 2 and 4	Marks: 55 Internal Assessment: 10 Total Marks: 65
PAPER-III Time: 3hrs	Engineering Drawing Practical Syllabus Semester-II Practical at Sr.No. 3, 5 and 6	Marks: 80 Internal Assessment: 15 Total Marks: 95

(v) FURNITURE MAKING AND DESIGNING

PAPER-I Time : 2 hrs	Furniture Furnishing and Finishing Material Theory Syllabus Semester-I Topics of Sr. No. a and b	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-I Time:3 hrs	Furniture Furnishing and Finishing Material Practical Syllabus Semester-I Practical at Sr.No.1 and 2	Marks: 25
PAPER-I	Furniture Furnishing and Finishing Material	

Time : 2 hrs	Theory Syllabus Semester-II Topics of Sr. No. c and d	Marks: 30 Internal Assessment: 15 Total Marks: 45
PAPER-I Time: 3 hrs	Furniture Furnishing and Finishing Material Practical Syllabus Semester-II Practical at Sr.No.3 and 4	Marks: 50
PAPER-II Time : 2 hrs	Tools and Processes Theory Syllabus Semester-I Topics of Sr.No. a and b	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-II Time:3 hrs	Tools and Processes Practical Syllabus Semester-I Practical at Sr.No. b and c(1,2)	Marks: 25
PAPER-II Time : 2 hrs	Tools and Processes Theory Syllabus Semester-II Topics at Sr.No. c to g	Marks: 30 Internal Assessment: 15 Total Marks: 45
PAPER-II Time:3 hrs	Tools and Processes Practical Syllabus Semester-II Practical at Sr.No. a, c(3, 4, 5) d (I to IV) and e.	Marks: 50
PAPER-III Time : 2 hrs	Furniture Design Theory Syllabus	Marks: 30 Internal Assessment: 10

Semester-I

Total Marks: 40

Designing and detailing of the following type of furniture:

- Movable furniture
- Up holstered furniture
- Built in furniture and fixture
- Orna mented furniture

PAPER-III

Furniture Design

Time:3 hrs

Practical

Marks: 25

Syllabus

Semester-II

Practical of Sr. No.' a'

PAPER-III

Furniture Design

Time : 2 hrs

Theory

Marks: 30

Syllabus

Internal Assessment: 15

Semester-II

Total Marks: 45

- Designing and detailing of the following type of furniture :
Mirrors of pedestal lamps.
- Estimating (I to IV)

PAPER-III

Furniture Design

Time:3 hrs

Practical

Marks: 50

Syllabus

Semester-II

Practical of Sr. No.'b' and 'c'

(vi) MECHANICAL SERVICING (AUTO)

PAPER-I

Workshop Technology

Time : 2 hrs

Theory

Marks: 30

Syllabus

Internal Assessment: 10

Semester-I

Total Marks: 40

Lathe

PAPER-I Time:3 hrs	Workshop Technology Practical Syllabus Semester-I Practical at Sr. No. 1 to 5	Marks: 25
PAPER-I Time : 2 hrs	Workshop Technology Theory Syllabus Semester-II	Marks: 30 Internal Assessment: 15 Total Marks: 45
	WELDING And GRINDING	
PAPER-I Time : 3 hrs	Workshop Technology Practical Syllabus Semester-II Practical at Sr. No. 6 and 7	Marks: 50
PAPER-II Time : 2 hours	Garage Practice and Management Theory Syllabus Semester-I	Marks: 30 Internal Assessment: 10 Total Marks: 40
	AUTO SERVICING	
PAPER-II Time : 3 hours	Garage Practice and Management Practical Syllabus Semester-I Practical at Sr. No 1 to 4, 6 to 8, 11 and 12	Marks: 25
PAPER-II Time : 2 hours	Garage Practice and Management Theory Syllabus Semester-II	Marks: 30 Internal Assessment: 15 Total Marks: 45

PAPER-II Time : 3 hours	Garage Practice and Management Practical Syllabus Semester-I Practical at Sr. No 5, 9, 10, 13 to 19	Marks: 50
PAPER-III Time: 2 hours	Automobile Suspension and Controls Theory Syllabus Semester-I Topic of Serial No I and II	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-III Time : 3 hours	Automobile Suspension and Controls Practical Syllabus Semester-I Practical of Sr. No 1 to 5	Marks: 25
PAPER-III Time : 2 hours	Automobile Suspension and Controls Theory Syllabus Semester-I Topics of Sr. No III to VI	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER-III Time : 3 hours	Automobile Suspension and Controls Practical Syllabus Semester-I Practical of sr. no 6 to 13	Marks: 50
(vii) COMPUTER TECHNIQUES		
PAPER-I Time : 2 hours	Object Oriented Programming in C++ Theory Syllabus Semester-I OOPS C++ language Features C++ class Concepts	Marks: 30 Internal Assessment: 10 Total Marks: 40

PAPER-I Time : 3 hours	Object Oriented Programming in C++ Practical Syllabus Semester-I Practical at Sr. No 1 to 8	Marks: 25
PAPER-I Time : 2 hours	Object Oriented Programming in C++ Theory Syllabus Semester-II	Marks: 30 Internal Assessment: 15 Total Marks: 45
	Inheritance Polymorphism C++ File I/O Template Exception Handling Name Spaces Cast Operators	
PAPER –I Time: 3 Hrs	Object Oriented Programming in C++ Practical Syllabus Semester –II Practical of Sr. No. 9 to 13	Marks: 50
PAPER –II Time: 2 Hrs	Desktop Publishing Theory Syllabus Semester –I DTP fundamental of Page maker Corel Draw Power point and Photoshop.	Marks: 30 Internal Assessment: 10 Total Marks: 40
PAPER –II Time: 3 Hrs	Desktop Publishing Practical Syllabus Semester –I Practical of Sr. No. I to IV	Marks: 25

PAPER –II	Desktop Publishing	
Time: 2 Hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester –II	Total Marks: 45

MS Access
SQL
Relational Query
Relational Reports

PAPER –II	Desktop Publishing	
Time: 3 Hrs	Practical	Marks: 50
	Syllabus	
	Semester –II	
	Practical of Sr. No. V and VI	

PAPER –III	Advanced Mathematics and Computer Commercial	
	Applications	
Time: 3 Hrs	Theory	Marks: 55
	Syllabus	Internal Assessment: 10
	Semester –I	Total Marks: 65
	Matrices and Determinants Simultaneous Linear Equations	
	Differentiations	
	Introduction to Data Processing	

PAPER –III	Advanced Mathematics and Computer Commercial	
	Applications	
Time: 3 Hrs	Theory	Marks: 80
	Syllabus	Internal Assessment: 15
	Semester –II	Total Marks: 95
	Integration	
	Differential Equation	
	System Analysis and Design	
	Financial Accounting Package	

(viii) MANUFACTURING OF SPORTS GOODS

PAPER –I	Wood Based Sports Goods	
Time: 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10

Semester-I

Total Marks: 40

1. Raw Material used for Carom Board and Shuttle Cock.
2. Finishing Material used in Carom Board and Shuttle cocks at the time of Manufacturing.
3. Economy Measures to be observed in Wood Based Sports industry while making a Carom Board and Shuttle cock.
4. Tools and Machinery used in making Carom Board and Shuttle cock.
5. Procedure for calculating the cost prices of Finished Carom Board and Shuttle cock.
6. Calculating the selling time for the purpose of selling Carom Board and Shuttle Cocks.
7. Drawing, Designing and Standard Specification of the following:-
 - (i) Carom Board
 - (ii) Shuttle Cock

PAPER –I

Wood Based Sports Goods

Time: 3hrs

Practical

Marks: 25

Syllabus

Semester-I

1. Identification and uses of tools for Carom Board and Shuttle Cock.
2. Make a Practice in Finishing the semi-Finished Product of Carom Board and Shuttle cock.
3. Practice in making joints and application of adhesives in Carom Board and Shuttle cock.
4. Making and Calculating the cost of the following Sports Items:-
 - (i) Carom Board
 - (ii) Shuttle Cocks

PAPER –I

Wood Based Sports Goods

Time: 2 hrs

Theory

Marks: 30

Syllabus

Internal Assessment: 15

Semester-II

Total Marks: 45

1. Raw Material used for Cricket Bat, Base Bat and Wicket and Bails.
2. Finishing Materials used in Cricket Bat, Base Bat and Wicket and Bails at the time of Manufacturing.
3. Economy Measures to be used in Wood Based Sports Industry, when we make Cricket Bat, Base Bat and Wickets and Bails.

4. Tools and Machinery used in making Cricket Bat, Base Bat and Wicket and Bails.
5. Procedure for calculating the cost Price of finished Cricket Bat, Base Bat and Wicket and Bails.
6. Calculating the selling price of a finished Cricket Bat, Base Bat and Wicket and Bails for the purpose of selling.
7. Mention Export and Import specially related this trade.
8. Drawing and Designing of the following
 - (i) Cricket Bat
 - (ii) Base Bat
 - (iii) Wicket and Bails

PAPER –I

Time: 3hrs

Wood Based Sports Goods

Practical

Syllabus

Semester-II

Marks: 25

1. Identification and uses of tools for Cricket Bat, Base Bat and Wicket and Bails.
2. Make a practice in Finishing of Semi-Finished Product of Cricket Bat.
3. Practice in making Joints and Application of Adhesive in Cricket Bat.
4. Making and Calculation the Cost of following Sports and terms:-
 - (i) Cricket Bat
 - (ii) Base Bat.

PAPER-II

Time: 2 Hrs

Leather and Synthetic based Sports Goods

Theory

Syllabus

Semester-I

Marks: 30

Internal Assessment: 10

Total Marks: 40

1. Raw Material used for making Basket Ball, Hand Ball and Cricket ball.
2. Tools and Machinery used for making Basket Ball, Hand Ball and Cricket ball.
3. Various types of finished material used in Basket Ball, Hand Ball and Cricket B ll.
4. Economy measures to be observed (Taken) in Sports goods Leather Industry, while making Basket Ball, Hand Ball and Cricket Ball.

5. Reasons for making various things like Basket Ball, Hand Ball are making from synthetic material rather than leather these days.
6. Procedure for calculating the cost price of a finished Product of Basket Ball, Hand Ball and Cricket Ball.
7. Precautions to make Best goods from leather and synthetic based industry.
8. Drawing designing and standard specifications of the following:-
 - (i) Basket Ball – 32 Panels
 - (ii) Hand Ball – 32 Panels
 - (iii) Cricket ball – 2/4 Panels

PAPER-II

Leather and Synthetic based Sports Goods

Time: 3 Hrs

Practical

Marks: 25

Syllabus

Semester-I

1. Identification of tools and usages of tools for Basket Ball, Hand Ball and Cricket Ball.
2. Practice in Finishing the Semi-Finished goods like Basket Ball, Hand Ball and Cricket Ball.
3. Making and Calculation the cost of the following sports items:-
 - (i) Basket Ball
 - (ii) Hand Ball
 - (iii) Cricket Ball
 Repairing for Foot Ball, Volley Ball.

PAPER-II

Leather and Synthetic based Sports Goods

Time: 2 Hrs

Theory

Marks: 30

Syllabus

Internal Assessment: 15

Semester-II

Total Marks: 45

1. Raw material used for making Rugby Ball, Water polo ball and Hockey Ball.
2. Various types of Finished Material used in Rugby Ball, Water polo Ball and Hockey Ball.
3. Tools and machinery used for making Rugby Ball, Water Polo Ball and Hockey Ball.

4. Economy measures to be taken in Leather and Synthetic Based Sports Industry for making Rugby Ball, Water polo Ball and Hockey Ball.
5. Reasons for making various things like Rugby Ball, Water polo Ball and Hockey Ball are making from Synthetic material rather than leather these days.
6. Calculating the Selling Price of Finished Rugby Ball, Water Polo Ball and Hockey Ball.
7. Mention Exports and Import of Leather and Synthetic based Sports goods and details study related to this Industry.
8. Drawing Designing and standard specific actions of the following:-
 - (i) Rugby ball: - 32 Panels
 - (ii) Water Polo Ball: - 32 Panels
 - (iii) Hockey Ball

PAPER-II	Leather and Synthetic based Sports Goods	
Time: 3 Hrs	Practical	Marks: 50
	Syllabus	
	Semester-II	

1. Identification and uses of tools for Rugby Ball, Water Polo Ball and Hockey Ball.
2. Practice in Finishing the Semi Finished product. Rugby Ball, Water Polo Ball and Hockey Ball
3. Making and calculating the cost of the following: -
 - (i) Rugby Ball
 - (ii) Water Polo Ball
 - (iii) Repair the Basket Ball and Hand Ball.

PAPER-III	Textile Based Sports Goods	
Time: 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester –I	Total Marks: 40

1. Introduction and identification to various types of threads and padding material used in textile based sports goods industry for Cricket Leg Guard, Abdominal Guard, Volley-Ball Net and Sports Cap.
2. Raw material used in making Cricket Leg Guard, Abdominal Guard, Volley Ball Net and Sports Cap.

3. Economy measures to be taken in textile based sports goods industry while making Cricket Leg Guard, Abdominal Guard, Volley Ball Net and Sports Cap.
4. Tools and machinery used in making Cricket Leg Guard, Abdominal Guard, Volley Ball Net and Sports Cap.
5. Procedure for calculating the cost price of a finished Cricket Leg Guard, Abdominal Guard, Volley Ball Net and Sports Cap.
6. Scope, production and modernisation of sports industry in India with special reference to Punjab.
7. Drawing, designing and standard specification of the following
 - (A) Guards: -
 - (i) Cricket Leg Guard
 - (ii) Arm Guard
 - (iii) Chest Guard
 - (iv) Abdominal Guard.
 - (B) Nets: -
 - (i) Volley Ball Net
 - (ii) T.T. Net
 - (C) Sports Cap

PAPER-III
Time: 3 hrs

Textile based sports goods
Practical
Syllabus
Semester -I

Marks: 25

1. Practice in Pattern cutting of Cricket Leg Guard, Arm Guard and Chest Guard.
2. Practice in cutting components (Raw Material)of Cricket Leg Guard, Arm Guard and Chest Guard.
3. Practice of stitching of Cricket Leg Guard, Arm Guard, Chest Guard and Abdominal Guard.
4. Making and calculating the cost of following sports items:-
 - (a) Guards: - (i) Cricket leg Guard
 - (ii) Arm Guard
 - (iii) Chest Guard
 - (iv) Abdominal Guard
 - (b) Nets: - (i) Volley ball Net (ii) T.T Net

PAPER –III
Time: 2 hrs

Textile based Sports Goods
Theory
Syllabus

Marks: 30

Semester –II

1. Various types of threads and padding Material used in textile based Sports industry for hockey leg guard (goal keeper), elbow guard and head guard.
2. Row material used in textile based sports industry for hockey leg-guard, elbow guard, Head guard, Badminton Net, Basket Ball Net, Hockey goal net, leather grips.
3. Economy measures to be taken in textile based sports industry for hockey leg guard (goal keeper) elbow guar, head guard, badminton net, hockey goal net and leather grips.
4. Tools and machinery used for making hockey leg guard (goal keeper) elbow guard, head guard, badminton net, and hockey goal net and leather grips.
5. Procedure for calculating the cost price and selling price of hockey leg guard ,elbow guard, head guard, badminton net, hockey goal net and leather grips
6. Future of sports goods industry of India, special reference with textile based sports goods.
7. Drawing ,designing and standard specifications of the following:-
 - (a) Guards:- (i) hockey leg guard (ii) elbow guard (iii) head guard
 - (b)Nets:- (i) badminton net (ii) hockey goal net
 - (c) leather grips

PAPER-III

Textile Based Sports Goods

Time:3 hrs

Practical

Marks: 50

Syllabus

Semester-II

1. Practical is pattern cutting of hockey leg guard elbow guard and head guard.
2. Practical in cutting components (row material) of hockey leg guard (goal keeper) elbow guard, head guard and stitching it.
3. Making and calculating the cost of the following items
 - (i) Hockey leg guard (goal keeper)
 - (ii) Elbow guard
 - (iii) Head guard
 - (iv) Badminton net
 - (v) Hockey goal net

(vi) Leather grips

(ix) MANUFACTURING OF LEATHER GOODS

PAPER-I	Pattern Cutting and Designing	
Time: 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total Marks: 40
	Topics of Sr. No 1 and 2	
PAPER-I	Pattern Cutting and Designing	
Time: 3 hrs	Practical	Marks: 25
	Syllabus	
	Semester-I	
	Practical of Sr.No 1 and 2	
PAPER-I	Pattern Cutting and Designing	
Time: 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester-II	Total marks: 45
	Topics of Sr. No 3, 4, 5 and 6	
PAPER-I	Pattern Cutting and Designing	
Time: 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester-I	
	Practical of Sr. No 3 and 4	
PAPER-II	Novelty Leather Items	
Time: 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 10
	Semester-I	Total marks: 40
	Topics of Sr. No 1 and 2	

PAPER-II	Novelty Leather Items	
Time: 3 hrs	Practical Syllabus Semester-I	Marks: 25
	Practical of Sr. No 1, 2 and 3	
PAPER-II	Novelty Leather Item	
Time: 2 hrs	Theory Syllabus Semester-II	Marks: 30 Internal Assessment: 15 Total marks: 45
	Topics of Sr. No 3, 4, 5 and 6	
PAPER-III	Novelty Leather Items	
Time: 3 hrs	Practical Syllabus Semester-II	Marks: 50
	Practical of Sr. No 4, 5, 6, 7 and 8	
PAPER-III	Industrial Leather Goods	
Time : 2 hrs	Theory Syllabus Semester -I	Marks: 30 Internal Assessment: 10 Total Marks: 40
	Topics at Sr.No.1 and 2	
PAPER-III	Industrial Leather Goods	
Time : 3 hrs	Practical Syllabus Semester -I	Marks: 25
	Practical at Sr.No.1 and 2	

PAPER–III	Industrial Leather Goods	
Time : 2 hrs	Theory	Marks: 30
	Syllabus	Internal Assessment: 15
	Semester –II	Total Marks: 45
	Topics at Sr.No.3, 4 and 5	

PAPER–III	Industrial Leather Goods	
Time: 3 hrs	Practical	Marks: 50
	Syllabus	
	Semester –II	
	Practical at Sr.No.3 and 4	

(V) HUMANITIES AND OTHERS GROUP COMMERCIAL ART

PAPER–I	Commercial Arts And Drawing	
Time: 5 hrs	Practical	Marks: 55
	Syllabus	Internal Assessment: 10
	Semester –I	Total Marks: 65

Practical at Sr.No.1 and 2 of unit-I (Marks: 35)
 Sessional work: At least ten articles should be prepared by the candidates.
 (Marks: 20)

PAPER–I	Commercial Arts And Drawing	
Time : 5 hrs	Practical	Marks: 80
	Syllabus	Internal Assessment: 15
	Semester–II	Total Marks: 95

Practical at Sr.No.1 and 2 of unit-II (Marks: 60)
 Sessional work: At least ten articles should be prepared by the candidates.
 (Marks: 20)

PAPER–II	Design And Lay-Out	
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Time : 5 hrs	Practical	Marks: 55
	Syllabus	Internal Assessment: 10
	Semester –I	Total Marks: 65

Practical at Sr.No.1 and 2 of unit-I (Marks: 35)

Sessional work: At least ten articles should be prepared by the candidates.

(Marks: 20)

PAPER–II	Design And Lay-Out	
Time:5 hrs	Practical	Marks: 80
	Syllabus	Internal Assessment: 15
	Semester –II	Total Marks: 95

Practical at Sr.No.1 and 2 of unit-II (Marks: 60)

Sessional work: At least ten articles should be prepared by the candidates.

(Marks: 20)

PAPER–III	History Of Art	
Time : 3hrs	Theory	Marks: 55
	Syllabus	Internal Assessment: 10
	Semester –I	Total Marks: 65
	Topics at Sr.No.1, 2, 3 and 4	

PAPER–III	History Of Art	
Time :3 hrs	Theory	Marks: 80
	Syllabus	Internal Assessment: 15
	Semester –II	Total Marks: 95
	Topics at Sr.No.5, 6, 7, 8, 9 and 10.	