

**SYLLABUS/CURRICULUM  
AND  
STRUCTURE OF QUESTION PAPER  
FOR  
PRE-VOCATIONAL SUBJECTS  
10TH CLASS**

<b>Time : 2 hrs.</b>	THEORY	<b>Marks : 30</b>
<b>Time : 3 hrs</b>	PRACTICAL	<b>Marks : 60</b>
		<b>CCE : 10</b>

**Total Marks:100**

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

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

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

Part-III will consist of two questions carrying five marks each. Candidate will attempt any one question out of these. A question may have two and more parts. The answer of each question should not be more than two pages of the answer sheet.

**STRUCTURE OF QUESTION PAPER FOR PRACTICAL**

**Time: 3 hrs** **Maximum Marks: 60**

Distribution of marks will be as follows:

(i)	Practical note book/sessional work/visits/project work.	10 Marks
(ii)	Viva Voice	10 Marks
(iii)	Actual Performance	40 Marks

**Major Practical:**

In all, three practical 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.

**PRE-VOCATIONAL CURRICULUM  
THEORY**

**Time: 2 hrs**

**Theory: 30**

**Marks**

**Time: 3 hrs**

**Practical: 60**

**Marks**

**CCE: 10**

**Marks**

**Total: 100**

**Marks**

**COURSE: KNITTING (HAND & MACHINE)**

**CLASS: X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Knitting of Bawa suit on single bed hand knitting machine.	The pupil knows the methods of preparation of Bawa suit.	Explanation & demonstration	10
2.	Basic stitches in knitting (i) Plain stitch (ii) Rib stitch	The pupil knows about the basic stitches (with hand & machine )	Explanation & demonstration	10
3.	Winding of yarn, precautions to be kept during windings.	The pupil knows the winding of yarn.	Explanation & demonstration	8
4.	Knowledge of different types of yarn used in knitting i.e. cotton, wool & silk. Identification of these fibres through microscopic examination & burning test.	The pupil knows about the different types of yarn used in knitting industry. The pupil know about the identification of different fibres by burning test & microscopic examination.	Explanation & demonstration	12
5.	Introduction of hand socks knitting machine and required accessories.	The pupil i) Knows about the socks knitting machines. ii) Knows about various accessories their working.	Explanation & demonstration	9
6.	i) Explain the Cam parts of hand socks knitting machine. ii) Explanation with diagram the cylinder Cam-set of hand socks knitting machine.	The pupil i) knows about the Cam-parts of socks knitting machine. ii) knows about the knitting operation with the help of Cam set diagram.	Demonstration & explanation	11
7.	Method of making (i) Welt (ii) Rib (iii) Heel and Toe.	The pupil prepares welt, rib and heel and toe of socks.	Demonstration & explanation	10
8.	i) How to make full socks on hand socks knitting	The pupil prepares complete socks.	Demonstration & explanation	12

	machine. ii) Knowledge of various dimensions of socks.	The pupil knows about the various dimensions of socks.		
9.	Toe closing: Linking, Pressing, labelling, folding and packing of socks.	The pupil knows about linking, pressing, linking and packing of socks.	Demonstration	10
10.	Defecting that occur during knitting their causes and remedies.	The pupil understands various defects their causes & remedies.	Explanation & demonstration	8

**PRACTICAL**

**COURSE: KNITTING (HAND & MACHINE)**

**CLASS: X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>REQUIRED</b>			<b>METHODOLOGY</b>	<b>(Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Making of Bawa suit on single bed hand knitting machine.	The pupil performs the job of making Bawa suit.	Demonstration & actual practice	36
2.	Knowledge & Practice of wrapping yarn from hanks to bobbin	The pupil wraps yarn from hanks to bobbin	Demonstration & actual practice	12
3.	Identification & removal of the defects that occur during knitting	The pupil identifies removes the defects that occur during knitting.	Demonstration & actual practice	12
4	Identification of different types of yarn i.e. cotton, wool and silk by i) Microscopic examination ii) Burning test	The pupil identifies the different types of yarn with microscopic examination & burning test.	Demonstration & actual practice	12
5.	Disassembling and reassembling of the parts of socks knitting machine.	The pupil assembles, reassembles & cleans the socks knitting machines.	Demonstration & actual practice	12
6.	Identification for different types of cams of the socks knitting machine.	The pupil identifies the different types of cam of the machine.	Demonstration & actual practice	20
7.	Making of welt, rib, heel, & toe.	The pupil performs the job of making Welt, Rib, Heel & Toe.	Demonstration & actual practice	24
8.	Making of full socks with Rib & Elastic top.	The pupil performs the job of making full socks with elastic top.	Demonstration & actual practice	36
9.	i) Method of toe closing. ii) Linking, Pressing, Labelling, Folding and Packing of socks.	The pupil performs the job of finishing socks.	Demonstration & actual practice	24
10.	Making of Plain fabric & Rib fabric on machine.	The pupil knits Plain & Rib fabric.	Demonstration & actual practice	12

**PRE-VOCATIONAL CURRICULUM  
THEORY**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: GENERAL HORTICULTURE**

**CLASS: X**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Importance of fruit in diet, scope of fruit cultivation in Punjab.	The pupil i) Develops consciousness regarding value of fruits. ii) Understands the scope of fruit cultivation in Punjab.	Lectures, explanation, use of charts	4
2.	Selection of site and soil for fruit growing.	The pupil i) Knows the requisites for selection of site for fruit growing. ii) Understands the suitability of soil for fruit growing.	Lectures, explanation and visit to fruit growing or charts	4
3.	Planning and planting of an orchard-preparation of land; system of orchard; lay out; digging, refilling of pits; planting of trees.	The pupil i) knows how to prepare land for an orchard. ii) understand different systems of planting fruit plants iii) know how to play out a n orchard iv) can explain the method of digging and refilling of pits.	Lectures, use of charts, demonstration in the field.	10
4.	Propagation of fruit plants: see, cutting, layering, budding and grafting.	The pupil understands different methods of fruit propagation.	Explanation, demonstration	12
5.	Irrigation, manuring, and fertilization of fruit trees	The pupil knows	Explanation, use of charts	08

		i) different methods of irrigation ii) different methods of application of manures and fertilizers in an orchard.		
6.	Cultivation of fruit trees, i.e. Mango, Citrus, Grapes, Guava & Papaya.	The pupil understands how to grow different fruit plants.	Explanation	14
7.	Protection of vegetable and fruit plants from adverse weather conditions.	The pupil understands how to protect vegetable and fruit plants from sun-burn, sun scald and frost etc.	-Do-	06
8.	Weeds and their control.	The pupil i) can name different weeds ii) can explain their harmful effects on standing crops. iii) knows the methods of control of weeds.	Explanation	06
9.	Picking, packaging and marketing of fruits.	The pupil i) know how to pluck fruit from the trees. ii) can explain the method of packing of fruit iii) understands the system of marketing of fruits.	-Do-	08
10.	General techniques of preservation of fruits; preservation of fruits in the form of squashes, syrups and jams.	The pupil i) know the general techniques of preservation of fruits. ii) understands the general methods of preparation of squashes, syrups and jams.	Explanation & demonstration	08
11.	Growing of seasonal flowers and pot plants.	The pupil acquires knowledge to grow winter and summer seasonal flowers and pot plants	Explanation	08
12.	Growing of important ornamental trees, shrubs and climbers viz. Gulmohar, Amaltas , Bottle brush, Rose, Bogenvilla and ragoon creeper.	The pupil has the knowledge to grow ornamental trees, shrubs and climbers and is familiar with the methods of their cultivation.	-Do-	10
13.	Layout and maintenance of lawns	The pupil knows about the layout of lawns and their maintenance.	-Do-	02

**PRACTICAL**

**COURSE : GENERAL HORTICULTURE**

**CLASS : X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>METHODOLOGY</b>	<b>(Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Layout of an orchard with reference to various planting systems.	The pupil is able to layout an orchard using various planting systems.	Demonstration & Learning by doing	20

2.	Method of taking soil sample for testing and finding its suitability for fruit growing.	The pupil acquires the skill of taking soil sample for testing.	-Do-	20
3.	Methods of irrigation	The pupil is able to use different methods of irrigation as per requirement.	-Do-	20
4.	Digging, refilling of pits and Planting of fruit trees.	The pupil can (i) prepare the pit and refill it. (ii) plant a fruit tree.	-Do-	30
5.	Various methods of plant propagation i.e. seed, cutting, budding, layering and grafting.	The pupil acquires the skill to use various methods of plant propagation.	Demonstration & Learning by doing	36
6.	Application of manures and fertilizers to orchards.	The pupil can use different methods of manuring and fertilizing.	-Do-	20
7.	Home scale propagation of (i) squash (ii) jam (iii) syrup of one seasonal fruit.	The pupil can prepare these things from one seasonal fruit	-Do-	30
8.	Identification of fruits; fruit plants; flowers; manures & fertilizers; gardening tools and equipment used in gardening.	The pupil identifies (i) different fruits (ii) fruit plants (iii) flowers (iv) manures & fertilizers (v) common gardening tools & equipment.	-Do-	24

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Theory: 90**

**Marks**

**CCE: 10**

**Marks**

**THEORY**

**Total: 100**

**COURSE: ENGINEERING DRAFTING AND DUPLICATING**

**CLASS: X**

Sr. No. REQUIRED 1	CONTENT/ACTIVITIES 2	LEARNING OUTCOMES 3	TEACHING/LEARNING METHODOLOGY 4	TIME (Periods) 5
1.	<b>Drawing :-</b> i) Orthographic projection :- Meaning of R.P. Quadrant 1 <sup>st</sup> angle projections, third angle projections ( front view, side, top view)	The pupil i) knows differentiates and recognizes different orthographic projections.	Demonstration & explanation	12
	ii) Solid Geometry :- Orthographic projection of solid objects standing on horizontal plane with one of edge of the base as parallel , perpendicular and angular position with vertical plane. Section of solid made by horizontal parallel to xy.	ii) recognizes, names, differentiates between solids (cone, cylinder, prism and pyramids). iii) knows their projections at different angular positions.	Demonstration & explanation	17
2.	<b>Building Construction:-</b> (i) Masonry works :- Type of bricks, different type of bond i.e. English bond, Flemish bond, Types of masonry works. (ii) Measurement :- Reading of site plan, knowledge of the following instructions (a) Measuring tape and engineering chain. (b) Calipers, Vernier Calipers, Micrometer. (c) Line diagram of 4 points of electrical circuits. Brief introduction of electrical accessories used in house wiring.	The pupil knows, recognizes and differentiates different type of bricks and masonry work.  The pupil knows, differentiates and recognizes and names the different instructions and reads them.  The pupil knows about the electrical circuits, recognizes and differentiates its accessories used in house wiring.	Demonstration & explanation	12  22
2.	<b>Duplicating :-</b>	The pupil	Demonstration & explanation	17

	(i) Operating functions of following machines i.e. cyclostyle machine, Photostat machine, tracing table, sun frame, ammonia box.	i) knows the operation correctly of the duplicating machines.		
	ii) Objectives of tracing procedure of table tracing, Necessity of lamination, operating procedure of lamination machine.	ii) knows the objectives and procedure of tracing and understands the necessity & process of lamination and use of lamination machine.	Demonstration & explanation	20

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: COMMERCIAL ART**

**CLASS: X**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	Colour – Concept, Theory and classification, hues, density and tones. Symbolic aspects of Colours.	The pupil i) understands and narrates the concept of theory Colours. ii) understands and expresses symbolic aspects of Colours. iii) differentiates various types of Colours.	Lecture and demonstration	10
2.	Design, Definition, Principles and types of design.	The pupil defines, enlists and expresses principles of various types of designs.	Lecture and demonstration	17
3.	Printing techniques- water Colour, fabric Colour and oil painting.	The pupil names and differentiates various types of painting techniques and knows its different applications.	Lecture and demonstration	15
4.	Principles of good composition, distribution of space, balance, rhythm, dominance, abstraction.	The pupil enumerates principles of good composition.	Lecture and demonstration	18
5.	Printing techniques- Silk screen printing, line and	The pupil understands the process of silk screen	Lecture and demonstration	15



	half tone, block letters and offset printing.	printing and identifies the line and half tone block letter and offset printing.		
6.	Principle of poster design, lay out composition and book illustration.	The pupil recall's the principles of poster design, lay out and composition and book illustration.	Lecture	15
7.	Appreciation of art concept.	The pupil understands the concept of art.	Lecture	10

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: COMMERCIAL ART**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Drawing different parts of the body e.g. hand, foot, nose, eyes, lips etc. in pencil.	The pupil draws different parts of body e.g. hand, foot, nose, eyes, lips etc.	Demonstration & actual practice by students	30
2.	Head drawings in pencil.	The pupil draws the head in pencil and acquires the knowledge of head anatomy and make a portrait.	Demonstration & actual practice by students	25
3.	Drawing of landscape from nature memory with monochrome/ Colours.	The pupil draws landscape paintings.	Demonstration & actual practice by students	25
4.	To prepare a simple book and magazine cover design in Colour on topics on commercial art, Indian culture, Indian festivals, school magazine cover etc.	The pupil prepare book/magazine cover designs and understands its importance.	Demonstration & actual practice by students	25
5.	Preparation of a saree border and all over design (geometrical and floral).	The pupil prepares saree border and all over pattern design.	Demonstration & Actual practice by students	20
6.	Preparation of simple poster based on combination of lettering and simple illustrations. Topics – unity, donate blood, keep India beautiful, national integration, small saving scheme.	The pupil prepares a simple poster.	Demonstration & actual practice by students	25
7.	Visit to museum art gallery.	The pupil becomes aware of the past and prevalent art and culture.	Visit	25
8.	Visit to printing press/advertising agency.	The pupil becomes aware of printing and advertising process.	Visit	25

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: COMPUTER SCIENCE**

**CLASS: X**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	Information role in industry. Information, its importance and need. Difference between data & information to managers in decision making. Qualities of information, Categories of information .	The pupil a) understands the importance and need of role of information in industry. b) differentiates between data and information. c) knows and gives evidence of knowing qualities and categories of information.	Distinguishing detail & summary reports.	2
2.	Classification & History of computers. Micro, Mini, Main-frame and Super-Computers, Slide Rule, UNIVAC, ENIAC, EDSAC, Computer Generations.	The pupil knows the history of computers and can classify the evaluation of computers.	Audio-Visuals to show different computers on charts.	2
3.	Data Processing concepts. Origin of data, Input, Processing output, distribution, batch, on-line, real-time, processing.	The pupil understands different types of data processing activities.	Give examples on Railway booking, payroll etc.	2
4.	Numbering system. Decimal, Binary, Octal and Hexadecimal System and their inter conversion.	The pupil a) knows and gives evidence of understanding numbering systems. b) can do the inter conversions.	Exercise should be given	4
5.	Binary Arithmetic. Binary addition, subtraction, division & multiplication. Negative numbers and their storage techniques. Subtraction using complement	The pupil knows the Binary arithmetic and its uses.	Exercise should be given.	4

	method. Conversion of binary fraction to decimal fraction and vice-versa. Zoned and packed decimal numbers.			
6.	Recording Modes. BCD, Six bit, ASCII, EBCDIC Codes.	The pupil understands and exhibits the knowledge of recording modes.		4
7.	Boolean Algebra. Truth table, OR, AND, NOT, NOR, NAND, XOR logic gates.	The pupil understands and applies Boolean algebra.	Exercise on solving logical expressions.	4
8.	Computer packages. Introduction to spread sheets and database management packages.	The pupil understands and employs Computer packages.	Citing suitable examples.	.2
9.	Data Concepts. Physical and logical concepts of data, compiler, entity, attribute.	The pupil understands and explains the concepts.	Comparing the way data is stored on disk and retrieved on monitor.	2
10.	File Organization. Data items, record file, data base, serial, sequential, random and indexed sequential files.	The pupil correlates and applies the data storage with the application requirements.	Citing suitable examples, wherein such files are used like batch processing.	2
11.	Computer Communication. Twisted wire pairs, coaxial cable, microwave system, satellites, optical fibers, band-width, band rate, simplex, half-duplex, full-duplex, serial/parallel, asynchronous, synchronous transmission.	The pupil understands and uses communication techniques.	By giving examples wherein each media/method is used.	2
12.	Computer Networking. Protocols, LAN fundamentals and their classification, modem, bulletin board systems, E-mail, ISDN, NISDN, BISIN.	The pupil knows and explains sharing of data and other resources.	Demonstration/ charts may be used.	4
13.	Computer Application. Computer's role in office automation, education, business, banking, railways, research, printing, technology, medicine & communications, CAD,CAM, CAE, DTP, Expert systems, robots, tomography.	The pupil understands the application of computers in information technology.		2
14.	Advanced MS-DOS. Concepts of config.sys, autoexec.bat, batch files with parameters, io.sys, ms-dos.sys,	The pupil understands programming, applies various commands.	Demonstration followed by practical training.	8

	command.com, differences between internal and external commands, disk copy, format, chkdsk etc.			
15.	<p>Basic Languages (advanced techniques)</p> <p>User defines functions, Multiline functions subroutines exercises, Files. Relative merits and demerits of random and sequential files. Program file and data file, Creating files using standard packages.</p> <p>Creating files using a BASIC program.</p> <p>EDF function.</p> <p>Reading a sequential file using a BASIC program.</p> <p>Important note about opening the file in input mode.</p> <p>Operational points.</p> <p>Random files.</p> <p>Pointers.</p> <p>Accessing a random file.</p> <p>Accessing records at random.</p> <p>Graphic functions.</p>	The pupil understands and knows different types of files and graphs.	Sample programs and practical trainer.	58
				TOTAL : 100

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: COMPUTER SCIENCE**

**CLASS: X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES REQUIRED</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Advanced MS-DOS. Concept of config.sys, autoexec.bat, batch files with parameters, io.sys, ms-dos.sys, command.com, difference between internal and external commands, disk-copy, format, chkdsk etc.	The pupil makes simple programs with batch file and carries out various commands.	Demonstration followed by practical training.	40
2.	BASIC LANGUAGE (advanced techniques)	The pupil uses different types of files and prepares	Sample program and practical	160

	User defined functions. Multiline functions Subroutine exercise. Files, Relative merits and demerits of random and sequential files. Program file and data file. Creating files using standard packages. Creating files using a BASIC program. EDF function. Reading a sequential file using a BASIC program. Important note about opening the file in input mode. Operational points. Random files. Pointer Accessing a random file. Accessing records at random. Graphic functions.	graphs.	training.	TOTAL: 200 hrs.
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**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: MANUFACTURING OF SPORTS GOODS**

**CLASS: X**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	Types of finishing materials: Paints (duco),	The pupil	Lectures, discussion, visit to	6

	Polishes, Pigments Bider, Colour.	i) understands and is able to define and describe various types of finishing materials. ii) understands the proper use of the finishing materials.	factories demonstration.	
2.	Finishing process: a) Marks and blemish- their character and methods of removal b) Cleaning, polishing and stamping.	The pupil i) understands the method of removal marks and blemish ii) know how to clean, polish and stamp the goods	-Do-	6
3.	Steps to reduce wastage of raw materials.	The pupil understands how to adjust the raw materials and save it from wastage.	-Do-	5
4.	Seasoning of wood and methods of seasoning.	The pupil i) understands why seasoning is necessary ii) knows the best time of cutting iii) knows the method of seasoning.	-Do-	6
5.	Drawing and designing of job patterns pertaining to carom board and volley ball.	The pupil draws and designs patterns pertaining to items as given in column-2.	-Do-	8
6.	Standard specifications of carom board and volley ball.	The pupil understands the specification of the items as given in column-2.	-Do-	8
7.	Determining the cost price of finished goods.	The pupil understands how to determine the cost of the finished goods.	Lectures, discussion, visit to factories.	10
8.	Types of finishing materials in brief to revise: Paints (duco), Polishes, Pigments Bider, Colour.	To revise the use of finishes materials used for preparing the goods.	Lectures, discussion, visit to factories demonstration.	5
9.	Give brief knowledge of raw materials used in sports industries for cricket bat, hockey sticks, football & volley ball.	To revise about raw materials as told in 9 <sup>th</sup> class & for the items to manufacture in this semester.	Demonstrate and give Knowledge through lecture	5
10.	Steps to reduce wastage of raw materials and protection from defects.	Revise the 1 <sup>st</sup> semester syllabus and how to protect it pupil understands how to adjust the raw materials and save it from wastage.	-Do-	4
11.	Give the detail of method of seasoning & protection of wood from defects.	To give full detail of method of seasoning like natural method & artificial method & its different classes to seasoning of wood & protect the wood from defects like different types of medicine etc.	-Do-	7
12.	Drawing and designing of job patterns pertaining to football, cricket bat and hockey stick.	The pupil draws and designs patterns pertaining to items as given in column-2.	-Do-	8
13.	Standard specifications of carom board, cricket ball, hockey stick and volley ball.	The pupil understands the specification of the items as given in column-2.	-Do-	8
14.	Packing and dispatching.	The pupil understands how to pack the finished goods and dispatch them.	Lectures, discussion, visit to factories.	6

15.	Determining the marking of selling price of finished goods..	The pupil understands how to judge the market trend at the time of selling the finished goods.	Lectures, discussion, visit to factories.	8
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**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: MANUFACTURING OF SPORTS GOODS**

**CLASS: X**

**PRACTICAL**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Making a carom board of standard specification.	The pupil makes a carom board as per specification and follows the various steps logically.	Demonstration, visits to factories, Learning by doing.	25
2.	Making a volley ball of 32 panels.	The pupil makes a volleyball as per follows the various steps logically.	-Do-	35
3.	Making a cricket bat.	The pupil makes a cricket bat as per given specifications and follows the various steps logically.	-Do-	50
4.	Making a hockey stick.	The pupil makes a hockey stick as per given specifications and follows the various steps logically.	-Do-	50
5.	Making a Volley Ball 32 panels.	The pupil makes a volley ball as per given specifications and follows the various steps logically.	-Do-	20
6.	Making a Football 32 panels.	The pupil makes a football as per given specifications and follows the various steps logically.	-Do-	20

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: REPAIR & MAINTENANCE OF FARM POWER AND MACHINERY**

**CLASS: X**

Sr. No. REQUIRED 1	CONTENT/ACTIVITIES 2	LEARNING OUTCOMES 3	TEACHING/LEARNING METHODOLOGY 4	TIME (Periods) 5
1.	a) Role of farm machinery in agriculture and its advantages. b) Conventional and non conventional source of farm power. c) Advantages of biogas plant, solar cooker, smokeless chullah.	The pupil is aware of farm machinery and its advantages. The pupil knows about the occurs of farm power. The pupil understand the advantage of a) biogas plant b) solar cooker c) smokeless chullah	Class room teaching. ,, ,,	4 4 4
2.	Introduction to land preparation equipment : Mould board, plough, disk harrow, cultivator, planker, straw cutter.	The pupil recognizes the kind and use of land killage tools/equipment.	Class room teaching and field demonstration.	5
3.	a) Introduction to seeding-planting-transplanting equipment. b) Advantages and uses of seed cum fertilizer drill. c) Introduction to potato planters, sugarcane planters. d) Introduction to paddy transplanted.	The pupil knows the need and advantages of different planting and transplanting.	,,	4 4 4 4
4.	a) Introduction to thresher. b) Various systems of threshing: Feeding chute-threshing unit-blowing-cleaning of grains and bagging.	The pupil acquires knowledge of threshing practice for different crops.	Classroom teaching and field demonstration.	4 4
	c) Brief description of threshing machines chaff			4



	cutter-spike truth-drum type-hammers mill beater type.			
	d) Brief introduction to harvesting combines.			4
5.	a) Study of Hand and power operated sprayers and dusters.	The pupil know the and describe the use and operation of sprayers and dusters along with precautions.	Classroom teaching and field demonstration.	4
	b) Safety precautions while using K-napsack sprayer.			4
	c) Storage precautions			4
	d) Precautions while handling storage of insecticides.			4
6.	a) Introduction to diesel engine (Two stroke and four stroke).	The pupil acquires knowledge of construction and operation of diesel engine along with simple fault and their rectification.	Classroom teaching and demonstration.	4
	b) Constructional features of L engine.			6
	c) Principle of 4 stroke diesel engine.			6
	d) Diesel engine system: Fuel systems, water cooling system, force feed lubrication system.			6
	e) Trouble shooting- starting, air locking, smoky exhaust, engine overheating.			3
	f) Storage and handling of fuels/lubricants.			3
7.	a) Irrigation Methods: sprinkler irrigation – drip irrigation.	The pupil understands various irrigation methods and working of pumps.	,,	4
	b) Working and main parts of centrifugal and submersible pumps.			3

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: REPAIR & MAINTENANCE OF FARM POWER AND MACHINERY**

**CLASS: X**

**PRACTICAL**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Demonstration of working of solar cooker.	The pupil demonstrates the working of a solar cooker.	Explanation and demonstration	15
2.	Visit to a Biogas plant.	The pupil studies practically working of Biogas plant and draws free hand diagrams.	”	15
3.	Field visits for a demonstration of Mould Board Plough and Disc Harrow.	The pupil attends field visits for Mould Board Plough and Disc Harrow, sees their working and draws free hand diagrams.	”	15

4.	Hitching and De-hitching of semi mounted and mounted equipment.	The pupil hitches and de-hitches of semi mounted and mounted equipment.	”	15
5.	Identification of main parts of diesel engine.	The pupil identifies of main parts of diesel engine and draws its labeled diagrams.	”	10
6.	Cleaning of air cleaner, changing of filters.	The pupil cleans the air cleaner and changes the filters.	„	20
7.	Visit to workshop, handling repairs of diesel engine and farm implementations.	The pupil Visit workshop for the repair of diesel engine and other farm implements and takes notes and diagrams.	„	40
8.	Fixing of land parking and printing of centrifugal pump.	The pupil fixes a land packing and prints a centrifugal pump.	„	30
9.	Checking of alignment of installed tube well.	The pupil visits an installed tube well and checks its alignment and takes notes.	„	30
10.	Visits to tractor factories and agro based units.	The pupil visits tractor factories and agro based units and takes notes.	Arrangement of visits with proper organization.	10

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: MANUFACTURING OF LEATHER GOODS**

**CLASS: X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>REQUIRED</b>			<b>METHODOLOGY</b>	<b>(Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Brief introduction to the trade and importance and prospects of setting up small scale industrial units in Punjab state.	The pupil knows the importance of leather goods industry with special reference to Punjab state.	Lectures & Discussion	10
2.	Skiving, folding and method of economical clicking.	The pupil explains skiving, folding and economical clicking.	„	14
3.	Sequence operation of new cut, goggle case, small ladies purse, chappal and cycle seat cover.	The pupil explains the sequence operation of new cut, goggle case, small ladies purse, chappal and seat cover.	„	8
4.	Cost calculations of simple leather goods for	The child is aware of the market trends of simple	Lecture, demonstration visit to	8

	i) personal use      ii) sale	leather goods and can calculate their cost price and sale price.	factories and market.	
5.	Raw materials employed in leather goods industry and their proper uses with special reference to footwear industry.	The pupil knows how to select leather for specific purpose with special reference to footwear industry.	Lectures , demonstration and visits to small scale industrial units.	14
6.	General defects of hides and skins and remedial measures.	The pupil know the common defects of hides and skins and can explain remedial measures for the removal of defects.	Lectures, demonstration.	12
7.	Measurement of foot and simple knowledge of foot anatomy; common abnormalities of the foot.	The pupil i) knows the method of measurement of foot. ii) can describe common abnormalities in the foot.	„	18
8.	Workshop discipline and safety precautions.	The pupil i) enlists various safety precautions to be observed while at work. ii) knows the importance of maintaining proper workshop discipline.	Lecture, visits to workshops.	16

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: MANUFACTURING OF LEATHER GOODS**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Identification of various types of leather and their selection according to the requirements of the job.	The pupil identifies the common types of leather and selects the types according to requirement of the job.	Demonstration, learning by doing.	20
2.	Pattern cutting of new cut, goggle case, cycle seat cover, small ladies purse & chappal.	The pupil cuts patterns of simple leather goods mentioned in column 2.	Demonstration & learning by doing.	60
3.	Identification and use of equipment and tools employed in leather goods industry.	The pupil identifies the equipment and tools employed in the leather goods industry and use them according to the job requirement.	„	20
4.	Stitching (Hand & Machine)	The pupil makes stitches on leather by hand and by machine.	„	20
5.	Preparation of goggle case, cycle seat cover, key case, small ladies purse & chappal.	The pupil acquires workable skill to prepare simple leather items mentioned in column 2.	„	80

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: WOOD CRAFT**

**CLASS: X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>REQUIRED</b>			<b>METHODOLOGY</b>	
<b>(Periods)</b>				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	a) Introduction to the timber such as Deoder, Kail, Partel, Sheesham, Babool and Mango etc.	The pupil explains the properties and uses of common types of timber	Explanation, Demonstration visits to timber markets and forests.	15
	b) Identification of wood by Colour, grains and smell.	The pupil has the knowledge of Colour, grains and smell of different types of wood.		15
2.	Conversion of timber into different shapes by hand cutting & sawing etc.	The pupil is well versed with the methods of converting timber into different shapes.	Demonstration Explanation	10
3.	The seasoning of wood and its importance; elementary knowledge of methods of seasoning; stacking of wood.	The pupil i) recognizes and compares unseasoned and seasoned wood. ii) explain the importance of seasoning. iii) describes various methods of stacking of wood.	Demonstration Explanation visits to seasoning plants.	20
4.	Defects in wood and their remedies.	The pupil i) has the knowledge of various defects in wood. ii) explains the elementary methods for the removal of defects.	Demonstration Explanation	15
5.	Measuring of wood.	The pupil measures wood correctly in shape & size.	Demonstration Explanation Supervision	05
6.	Introduction to common fasteners and fittings such as nails, screws, nuts & bolts, dowels etc.	The pupil has the knowledge of various types of fasteners and fittings commonly used in wood craft.	Display Demonstration Explanation	05

7.	Importance and introduction to the methods varnishing, painting and finishing.	The pupil understands the importance and methods of varnishing, painting and finishing.	Demonstration Explanation Supervision	05
8.	Types of glue, animal glue, fevicol and their specific used in wood craft.	The pupil i) know how to identify different types of glue. ii) is familiar with their specific uses.	Demonstration Explanation	05
9.	Introduction to the importance and uses of play wood and mica.	The pupil has the knowledge of importance and uses of play wood mica.	Display Explanation	05

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: WOOD CRAFT**

**CLASS: X**

**PRACTICAL**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	Making of Mortises and Tenon joint, mitre joint, scarf joint etc. Name Plate	The pupil acquires elementary skills in making different joints and name plates in different sizes.	Demonstration Learning by doing	50
2.	Making a job like paper tray, money box, peg table, file rack, Using Plywood & Mica.	The pupil acquires elementary skills in shaping wood into different articles like paper tray, money box, peg table, file rack etc, minor fitting of mica.	-Do-	50
3.	Spirit polishing and varnishing.	The pupil develops workable skills in polishing and varnishing.	-Do-	50
4.	Repair of school furniture e.g. chair, table, stool etc.	The pupil acquires skills for repairing simple furniture items as per necessity..	-Do-	50

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: ELECTRONIC TECHNOLOGY**

**CLASS: X**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING	TIME
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**Theory: 30**

**Practical: 60**

**CCE: 10**

**THEORY**

**Total: 100**

1	2	3	METHODOLOGY 4	(Periods) 5
1.	General introductory Lectures, fundamentals of electricity, application of alternating and direct current electricity, difference between the two.	The pupil acquires knowledge of fundamental concept of electricity AC and DC.	Lecture Method	6
2.	Resistors: types, Units and Colour code; parallel and series circuits.	The pupil learns all types of resistance and their Use.	Lecture and demonstration Method	10
3.	Capacitor: Types, Units and Colour code; parallel and series circuits.	The pupil gains knowledge of capacitors.	„	10
4.	Inductors; Types of inductors, transformers and types of transformers	The pupil acquires knowledge of different types of inductors and transformers.	Lecture and practical demonstration.	10
5.	Introduction to magnetism, electromagnetic induction, their properties and uses.	The pupil acquires the knowledge of relays and their use in electronics.	By demonstrating relays.	6
6.	Semiconductors, conductors and insulators; Pure and impure semi-conductors; p-N junction; Diodes, NPN, and PNP transistors.	The pupil acquires knowledge of semiconductor materials:- as Diodes, transistors and ICs.	Lectures and demonstration	6
7.	Rectification: Types of rectifiers, (half-wave, full wave and bridge type)	The pupil knows the operation of circuit which converts AC into DC and its use in electronics.	„	15
8.	TV frequency bands and channels VHF (low), VHF (high) and UHF.	The pupil has the knowledge of various frequencies used in TV system.	Lecture	8
9.	Block diagram of TV receiver (B&W); function of each block.	The pupil has the knowledge of video signals; its reception and re-production into a picture.	Lecture	25

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: ELECTRONIC TECHNOLOGY**

**CLASS: X**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	Study of radio tools and safety precautions.	The pupil identifies different radio tools, uses them properly taking necessary safety precaution.	Demonstration & discussion, Learning by doing	10
2.	Soldering and de-soldering practices.	The pupil acquires workable skills of soldering and de-soldering.	„	20
3.	Use of different types of multi meters (AVO meters), digital meter.	The pupil skillfully uses different types of multi meter (AVO meters), digital meter.	„	20
4.	Assembling power extension-board with series	The pupil acquires skills for lubrications of extension-	„	20

	test-lamp, neon indicator and fuse.	board and attains the knowledge of house-wiring.		
5.	Measurement of resistances and ceramic capacitors by Colour code method, verification with multi meter.	The pupil acquires skills to read the value of resistances and capacitors by Colour-code, practices proper use of multi meter.	„	10
6.	Connecting the resistance in series and parallel-measuring the resultant value.	The pupil practically learns calculating the value of resistance, in parallel and series.	„	10
7.	Assembling disco-light circuit.	The pupil learns connections and operation of LED's.	„	10
8.	Assembling Hero-Honda horn using IC 3561.	The pupil acquires skill to use IC's in electronic circuits.	„	15
9.	Assembling L-plate transistor radio receiver.	The pupil does PCB soldering and circuit wiring.	„	30
10.	Operation of TV front panel controls (B&W and Colour).	The pupil employs tuning-techniques to obtain good picture on TV screen.	„	15
11.	Installation of my antenna.	The pupil acquires the skill to install TV antenna.	„	15
12.	Use of controls on RF/AF signal generators.	The pupil learns the use of any type of signal-generators.	„	15

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: WEAVING TECHNOLOGY**

**CLASS: X**

Sr. No.	CONTENT/ACTIVITIES REQUIRED	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	Process of weaving : - Comparative study of weaving. - Handloom weaving & modern trends in weaving.	The pupil understands various types of weaving & knows about different modern-trends in weaving.	Use of charts & films.	8
2.	Preparatory Processes : Methods of sectional warping. - Names & functions of different parts of sectional warping on machine.	The pupil understands the method of sectional warping and parts of the machine. Pupil takes the necessary precautions.	Demonstration, discussion & Mill visits.	18

	- Precautions to be kept in mind while sectional warping.			
3.	Functions of Handloom : - Names & functions of different parts of Frame type fly shuttle loom. -Primary & secondary motions of simple handloom	The pupil understands the functions of different parts of frame type fly shuttle loom and also the synchronicity between different motions.	Demonstration & explanation	18
4.	Graphical Designing : - Constructor of plain, will twill weave with draft & peg plan. - Construction of satin & sateen weaves with draft & peg plan.	The pupil understands graphical designing of twill weave, satin & sateen weave etc.	Demonstration & Explanation	12
5.	Textile Fibers : - Identification or wool & silk fibers by physical testing.	The pupil identifies & tests different fibers by touching & chemical testing.	Display & Demonstration	16
6.	Textile calculations : - Calculations of read count. - Calculations of total no. of warp threads, no. of section, width of sections, no. bobbing & total length of yarn.	The pupil attains numerical ability regarding warp calculations of various types.	Demonstration explanation & repetitive exercises	12
7.	Cloth Defects : - General defects in cloth during weaving & their remedies.	The pupil acquires knowledge about defects during cloth weaving & their rectification.	Explanation	16

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: WEAVING TECHNOLOGY**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Parts of sectional warping machine.	The pupil identifies different parts of warping machine.	Demonstration & project assignment	15
2.	Arrangement of creel stand.	The pupil acquires skill in arrangement of creel stand.	Demonstration & assignment	15
3.	Warping of at least one section (by a group).	The pupil acquires warping skill.	Project assignment	35
4.	Drafting of plain, twill and their derivatives weaves.	The pupil drafts plain twill and their derivatives weave.	Demonstration & project assignment	30
5.	Weaving of plain, twill clothes or fabric.	The pupil weaves plain twill clothes.	Demonstration & Mill visits	60



6.	Fitting of handloom for plain and twill weave.	The pupil acquires skill in mantling and dismantling of handloom for particular weave.	Demonstration & actual practice by students.	30
7	Identification of wool & silk fibers by physical & chemical testing.	The pupil identifies practically the fibers physically & through chemical testing.	Laboratory exercises.	15

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: FOOD PRESERVATION**

**CLASS: X**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>METHODOLOGY</b>	<b>(Periods)</b>
<b>REQUIRED</b>			<b>4</b>	<b>5</b>
1.	Need and scope of food preservation.	The pupil understands and expresses the need and scope of food preservation.	Lectures and Description	6
2.	Various categories of food i.e. perishable, semi perishable and non perishable.	The pupil understands and classifies various categories of food which can be preserved.	„	6
3.	Methods of food preservation : a) Drying and dehydration b) Curing and fermentation	The pupil knows, enlists and describes various methods of food preservation and their importance.	„	17
4.	Methods of food preservation : a) Preservation using salt and sugar. b) Radiation	The pupil knows, enlists and describes various methods of food preservation and their importance.	„	17
5.	Elements of food microbiology, types of micro-organisms, their characteristics properties and their useful and harmful effects on food.	The pupil i) enlists the elements of food microbiology and characteristics properties of micro organisms responsible for spoilage. ii) Understands the useful and harmful effects of micro organisms on food.	„	22
6.	Procurement, processing and storage of cereals,	The pupil knows and describes various methods of	„	22

	pulses, fruits, vegetables, milk and eggs.	procurement, storage and processing of different foods and their products.		
7.	Organoleptic (sensory) characteristics of foods.	The pupil knows and describes the testing of prepared products organoleptically.	„	10

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: FOOD PRESERVATION**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Preparation of charts and posters for perishable, semi perishable and non perishable foods.	The pupil understands and enlists different types of food required for preservation.	Actual preparation of charts by the students.	10
2.	Bottling of tomatoes, peas, mango and papaya.	The pupil preserves fruits and vegetables using salt and sugar i.e. Brine and Syrup.	„	30
3.	Drying of tomatoes, Onion, garlic and chilies.	The pupil preserves fruits and vegetables using solar energy and thus conserves energy.	„	30
4.	Testing of fat, S.N.P., total solids with the help of Lactometer, clot on boiling test (COB)	The pupil tests various samples of milk for fat, S.N.P. in order to check the adulteration and test quality.	Demonstration & actual practice by students.	20
5.	Preparation of synthetic vinegar Kanji (using black carrots)	Pupil preserves fermented drinks like 'kanji' and other fermented foods.	„	20
6.	Preparation of apple jam, mixed fruit jam, mango or lemon squash, rose syrup.	The pupil prepares various types of jams, syrups and squashes.	„	60
7.	Preparation of Khoya, curd and cottage cheese.	The pupil prepares various products from milk.	„	30

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: GARMENT TECHNOLOGY**

**CLASS: X**

**Theory:30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>REQUIRED</b>			<b>METHODOLOGY</b>	<b>(Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Introduction to different types of styles of children's, men's and women's garments.	The pupil knows the various types and styles of garments for men, women and children.	Lectures and display of garments.	05
2.	Sewing Machine- its types, special attachments, their uses, defects and their removal.	The pupil a) identifies various types of sewing machines. b) identifies special attachments uses them. c) understands defects and knows the method of their removal.	Demonstration and charts/diagrams.	10
3.	Knowledge of commonly used fabrics.	The pupil gains knowledge of commonly available fabrics in the market.	Demonstration and visits.	08
4.	Selection of threads, hand & machine needles according to the fabric for various purposes (stitching & embroidery)	The pupil understands the concept of normal and abnormal human body with regards to proper fitting of garments.	Demonstration and description	
5.	Study of human body, normal and abnormal with emphasis on proper fitting of garments.	The pupil understands the concept of normal and abnormal human body with regards to proper fitting of garments.	Demonstration and description	18
6.	Methods of taking body measurement and its sequence of recording.	The pupil understands and uses the method of taking measurements and sequence of recording.	„	09
7.	Selection of suitable fabrics for different types of garments economic layout estimation of cloth requirement.	The pupil i) knows the method of selection of different types of fabrics. ii) understands the economic layout and estimates the cloth for various garments.	Demonstration	09
8.	Collars and cuff- types, shapes and method of fixing and their uses for various garments.	The pupil identifies various types and shapes of collars and cuffs and knows their uses for garments.	Lectures and Demonstration.	18
9.	Lining- necessity, it's matching with garments.	The pupil knows about the need and matching of lining and	Lectures and Demonstration.	07

	Interlining.	interlining.		
10.	Checking and mode of alteration for proper fitting.	The pupil checks the different defects and to makes alteration for proper fitting.	„	12
11.	Pre requisites for establishing a garment shop.	The pupil knows the requirement for establishing a garment shop and Boutiques.	„	06

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: GARMENT TECHNOLOGY**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Dismantling and assembling of a hand operated sewing machine and treadle operated machine.	The pupil dismantles and reassembles various parts of sewing and treadle operated machine.	Demonstration & actual practice by students.	14
2.	Identification of different fabrics- cotton, synthetic, woolens & mixed( terry cot)	The pupil identifies and names different fabrics.	Demonstration & practice by students.	12
3.	To practice the method of taking measurements directly from the body and from ready made garments, its sequence of recording.	The pupil takes measurements from actual body and also from ready made garments records the measurements in sequence.	Demonstration & actual practice by students.	12
4.	To prepare sample using decorative stitches (a) chain (b) cross (c) laizy daizy (d) long and short stitches.	The pupil prepares samples using decorative stitches.	„	18
5.	Drafting and cutting of simple sleeves and puff sleeves.	The pupil drafts and cuts simple sleeves and puff sleeves.	„	22
6.	Preparation of samples of cut packets- single jet and double jet.	The pupil prepares samples of cut packets – single jet and double jet.	„	22
7.	Drafting, pattern cutting, lay out. Estimation and stitching of following garments. a) Simple Underwear b) Petticoat c) Salwar d) Ladies Shirts e) Pant cut Pajama	The pupil drafts cuts, layout, estimates and stitches. items a to c in column 1.	„	10+15+25+15 22=87
8.	Finishing and ironing of above made garments.	The pupil finishes and irons the above made garments.	„	13

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: WELDING**

**CLASS: X**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Electric arc welding equipment.	The pupil knows & describes the electric arc welding set and its accessories.	Demonstration & lecture method	20
2.	Welding electrodes and flux	The pupil knows and narrates about electrodes and objectives of coating.	„	12
3.	Welding joints	The pupil understands and describes the different types of joints and their uses.	„	15
4.	Arc welding techniques	The pupil understands the method of formation of arc and to make bead.	„	15
5.	Gas welding equipment	The pupil knows & describes the gas welding set and its accessories.	„	20
6.	Types of flames, their structure	The pupil has knowledge and describes the different types of flames.	„	9
7.	Defects and remedies in welding	The pupil understands and describes the various defects occurring in welding and other removal.	„	9

**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: WELDING**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
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1	2	3	METHODOLOGY 4	(Periods) 5
1.	Setting of current with respect to material, its size and electrode.	The pupil acquires and displays skill of selection of electrodes and current setting.	Demonstration and practice by students.	12
2.	Preparation of joints with Arc welding	The pupil acquires and displays skill of making lap, butt and T-joints by Arc welding.	„	
	a) Lap joint			12
	b) Butt joint			12
	c) T- joint	12		
3.	Striking an arc and preparation of beads.	The pupil acquires a) skill of Arc welding and	„	15
		b) knows removal or slag and laying another bead		15
4.	Preparation or utility articles like Peehri.	The pupil acquires skill of electric arc welding in making Peehri or some other article.	„	21
5.	Minor repair work and school furniture with arc welding.	The pupil acquires skill in repairing school furniture with arc welding.	„	12
6.	Setting up Gas welding set.	The pupil acquires skill of setting acetylene gas apparatus.	„	12
7.	Formation of different types of flames.	The pupil acquires skill of making different flames with welding torch.	„	21
8.	Preparation or joints with gas welding.	The pupil acquires skill of making Lap, Butt and T- joint by gas welding.	„	23
	a) Lap joint			
	b) Butt joint			
	c) T- joints			
9.	Preparation of utility articles from pipes.	The pupil acquires skill of making any one item of steel furniture by gas welding.	„	21
10.	Minors repairs.	The pupil acquires skill of repair of any one item of school furniture by gas welding.	„	12

**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

**COURSE: R & M OF HOUSEHOLD ELECTRICAL APPLIANCES**

**CLASS: X**

Sr. No. REQUIRED	CONTENT/ACTIVITIES	LEARNING OUTCOMES	TEACHING/LEARNING METHODOLOGY	TIME (Periods)
1	2	3	4	5
1.	<b>A.C. Fundamentals :</b> Terms such as cycle, amplitude, frequency, time period, instantaneous value, R.M.S. value. Introduction to simple A.C. circuit power & power factors.	The pupil understands A.C. fundamentals.	Demonstration & description	14
2.	Earthing-Necessity and its types.	The pupil has the concept of earthing of electrical circuit and its necessity.	,,	10
3.	General safety precautions, causes and treatment of electricshock.	The pupil knows general safety precautions, causes and treatment of electricshock.	Demonstration and description	10
4.	Measuring instruments: Voltmeter, Ammeter, wattmeter, energy meter, multimeter, S.W.G. and micrometer.	The pupil recognizes and knows the use of measuring instruments.	,,	12
5.	Types of wiring (Battery and conduit wiring). Comparison between battery and conduit wiring.	The pupil understands and describes different types of wiring.	,,	10
6.	Use of series testing board for fault location in domestic appliances.	The pupil is able to locate fault in domestic appliances with the help of testing board.	,,	8
7.	Construction and working of fluorescent tube, testing its various components. Rectifying defects in fluorescent tube.	The pupil has knowledge of different parts of fluorescent tube, its use defects and remedies.	,,	10
8.	Construction and working of electrical bell and gas lighter, their fault location and their remedies.	The pupil understands the working of electrical bell and gas lighter.	,,	10

9.	Construction, working and fault finding of electrical iron (non-auto). Electrical cooking heater, room heater and soldering iron.	The pupil has knowledge of working of different electrical gadgets and can locate faults.	„	11
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**PRE-VOCATIONAL CURRICULUM  
PRACTICAL**

**COURSE: R & M OF HOUSEHOLD ELECTRICAL APPLIANCES**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Introduction to various meters such as voltmeter, Ammeter, wattmeter & energy meter.	The pupil identifies and names various meters.	Demonstration	14
2.	To verify Ohm's law.	The pupil practically verifies Ohm's law.	Demonstration and actual practices by pupils.	10
3.	Calculation of R.V.I.W. and energy for a given appliances.	The pupil measures and calculates R.V.I.W. and energy.	„	15
4.	Use of S.W.G. and micrometer.	The pupil uses S.W.G. and micrometer.	Demonstration and actual practices by pupils and charts.	14
5.	Identification of different wiring accessories.	The pupil identifies different wiring accessories.	„	16
6.	Stair case wiring control: one lamp front two different places using conduit wiring.	The pupil sets up a stair case circuit through battery wiring.	Circuit diagrams	12
7.	Control one lamp from two different places using conduit wiring.	The pupil sets up a stair case circuit through conduit wiring.	„	10
8.	To prepare series test board.	The pupil prepares a series test board.	„	14
9.	To control an electric bell through push bottom using battery wiring.	The pupil makes a bell circuit using battery wiring.	Demonstration & actual working by students.	13
10.	To prepare a wiring circuit comprising of a lamp and socket using batton wiring.	The pupil prepares a circuit for a lamp and socket in battery wiring.	Demonstration & practical work by students.	13
11.	To connect a fluorescent tube in A.C. circuit and operate in 220 v A.C.	The pupil connects and operates A.C. circuit using 220 volts.	„	10



**PRE-VOCATIONAL CURRICULUM**

**Time: 2 hrs**

**Marks**

**Time: 3 hrs**

**Marks**

**Marks**

**Marks**

**COURSE: R & M OR SCOOTER & MOTOR CYCLE**

**CLASS: X**

**Theory: 30**

**Practical: 60**

**CCE: 10**

**Total: 100**

**THEORY**

<b>Sr. No.</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING</b>	<b>TIME</b>
<b>REQUIRED</b>			<b>METHODOLOGY</b>	<b>(Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Value operating mechanism function line diagram of value operating mechanism, constructional details of timings gears, cam shaft and value, value timing Silencer.	The pupil understands the value operation mechanism and draws diagrams.	Demonstration and description	10
3.	Fuel supply system: Working details of a carburetor trouble shooting of fuel supply system and carburetor.	The pupil understands and described the fuel supply system and the working of the carburetor and knows the trouble shooting about fuel supply and the remedies.	„	10
4.	Ignition system, Battery rating, Battery charging, ignition timing, trouble shooting of ignition system.	The pupil understands and describes the ignition system and explains battery rating, battery charging, ignition timing and trouble shooting of ignition system.	„	10
5.	Suspension system: Trouble shooting or a hydraulic shock absorber, Wheels, tyres, tubes, tyre pressure	The pupil understands and describes the suspension system.	„	14
6.	Lubrication system: types of lubricants, SAE Viscosity ratings, factors relating to high oil consumption and their remedies.	The pupil knows about the lubrication system, types of lubricants and factors leading to high oil consumption and their remedies.	„	12
7.	Transmission system: Construction and working of centrifugal type friction clutch, faults, causes and their remedies of clutch and gear box.	The pupil understands the construction and working of transmission system and knows about friction, clutch faults, their causes and remedies.	„	14
8.	Lighting system: Objectives, Bulbs, Head lights, Parking lights, Side indicator, Fuel gange, Speedometer, Horn, fault finding in	The pupil understands the objectives of the lighting system, its components, their faults and remedies.	„	10

	lighting system and their remedies.			
9.	Servicing: Engine tuning, factors relating to high fuel consumption and engine overheating.	The pupil understands the need of servicing as a remedial measure for high fuel consumption and engine overheating, engine tuning.	„	10
10.	Road signs, road signals, necessity of driving license, vehicle registration and insurance.	The pupil knows about road signs & signals and necessity of driving license. Vehicle registration and insurance penalties for non-observance.	„	10

**PRE-VOCATIONAL CURRICULUM  
PARTCIAL**

**COURSE: R & M OF SCOOTER & MOTOR CYCLE**

**CLASS: X**

<b>Sr. No. REQUIRED</b>	<b>CONTENT/ACTIVITIES</b>	<b>LEARNING OUTCOMES</b>	<b>TEACHING/LEARNING METHODOLOGY</b>	<b>TIME (Periods)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
1.	Layout of a scooter/ Motor cycle repair shop.	The pupil prepares a rough sketch of layout of a scooter/ motor cycle repair shop and enlists the various tools and equipment.	Demonstration and practice by the students	6
2.	Factors taken under consideration while setting of a Scooter Motor Cycle repair shop	The pupil enlists the Factors to be kept in view while setting a Scooter and Motor cycle repair shop.	,,	5
3.	Valve lapping.	The pupil undertook valve lapping.	,,	6
4.	Setting of Valve tappet clearance.	The pupil sets valve tappet clearance.	,,	6
5.	Setting of Value timing	The pupil sets valve timings.	,,	6
6.	To change an oil filter.	The pupil changes oil filter.	,,	8
7.	Checking two tyre pressures.	The pupil checks tyre pressure.	,,	6
8.	Brake adjustment.	The pupil undertakes brake adjustment.	,,	8
9.	Brake shoe relining.	The pupil checks brake shoe relining.	,,	6
10.	Adjustment of head light.	The pupil adjusts head light.	,,	8
1.	Carburetor Servicing.	The pupil undertakes Carburetor servicing.	,,	12
2.	Cleaning of C.B. point and adjusting gap.	The pupil cleans C.B. point and adjusts the gap.	,,	8
3.	To change piston and piston rings.	The pupil changes piston & piston rings.	,,	6
4.	Battery testing of Ignition timing.	The pupil employs hyetometer for testing battery.	,,	8
5.	Checking and testing of Ignition timing.	The pupil checks and sets ignition timing.	,,	8
6.	Servicing of a multiplate clutch.	The pupil undertakes servicing of a multiplate clutch.	,,	12
7.	Servicing a centrifugal clutch.	The pupil undertakes servicing of a centrifugal clutch.	,,	12
8.	Servicing a gear box.	The pupil services a gear box.	,,	12
9.	Replacing a shock absorber.	The pupil replaces a shock absorber.	,,	10
10.	Replacing a punctured tube.	The pupil repairs a punctured tube.	,,	10
11.	Fault finding and lighting system.	The pupil finds fault in the lighting system.	,,	12
12.	Adjusting a horn.	The pupil can adjust a horn.	,,	7
13.	Engine tuning.	The pupil tunes the engine.	,,	6
14.	Precautions before starting an engine.	The pupil takes precaution before starting and stopping an engine.	,,	6

15.	Starting and stopping engine.	The pupil can start and stop engine in the correct manner.	„	6
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ਪ੍ਰੀ-ਵੋਕੇਸ਼ਨਲ ਕਰੀਕੁਲਮ

ਸਮਾਂ: 2 ਘੰਟੇ

ਲਿਖਤੀ: 30

ਅੰਕ

ਸਮਾਂ: 3 ਘੰਟੇ

ਪ੍ਰਯੋਗੀ: 60

ਅੰਕ

ਸੀ.ਸੀ.ਈ.: 10

ਅੰਕ

ਲਿਖਤੀ

ਕੁੱਲ: 100

ਅੰਕ

ਪਾਠ-ਕ੍ਰਮ : ਮੁੱਢਲੇ ਦਫ਼ਤਰੀ ਕਾਰਜ ਅਤੇ ਸਟੈਨੋਗ੍ਰਾਫੀ

ਕਲਾਸ : 10 ਵੀਂ

ਲੜੀ ਨੰ: ਕਥਨ	ਵਿਸ਼ਾ-ਵਿਸ਼ਲੇਸ਼ਣ ਤੇ ਹੋਰ ਵੇਰਵੇ	ਸਿਖਲਾਈ ਉਦੇਸ਼	ਪੜਾਉਣ ਤੇ ਸਿੱਖਣ ਵਿਧੀ	ਸਾਜ਼-ਸਮਾਨ ਦੀ ਲੋੜ	ਨਿਸ਼ਚਿਤ ਲੋੜੀਂਦਾ ਸਮਾਂ	ਵਿਸ਼ੇਸ਼
1	2	3	4	5	6	

(ੳ)	<b>ਟਾਈਪ ਥਿਊਰੀ</b> 1. ਸ਼ੁੱਧ ਟਾਈਪ ਕਰਨ ਲਈ ਸਾਵਧਾਨੀਆਂ। ਸਪੀਡ ਵਧਾਉਣ ਦੀਆਂ ਵਿਧੀਆਂ।	ਵਿਦਿਆਰਥੀ ਸ਼ੁਧ ਅਤੇ ਤੇਜ਼ ਸਪੀਡ ਤੇ ਟਾਈਪ ਕਰਨ ਦੀ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।	ਛੋਹ ਪ੍ਰਣਾਲੀ ਵਿਧੀ ਰਾਹੀਂ ਸ਼ੁਧ ਰੂਪ ਵਿੱਚ ਟਾਈਪ ਸਮੱਗਰੀ ਚਿੱਠ- ਪੱਤਰ, ਹੱਥ ਲਿਖਤੀ ਅਤੇ ਬੇ-ਤਰਤੀਬੇ ਖਰੜਿਆਂ ਦਾ ਅਭਿਆਸ	ਟਾਈਪ ਮਸ਼ੀਨ ਕਾਗਜ਼, ਦਰੁਸਤੀ ਫਿਲਿਊਡ, ਕੂਰੈਕਸ਼ਨ - ਫਿਲਮ, ਰਬੜ, ਈਰੇਜਰ ਸ਼ੀਲਡ, ਕਾਰਬਨ, ਸਟੈਨਸਿਲ ਪੇਪਰ	ਟਾਈਪ ਟੇਬਲ ਅਨੁਸਾਰ	ਹਰ ਵਿਦਿਆਰਥੀ ਪੀਰੀਅਡ ਅਤੇ ਮਿਤੀ ਅਨੁਸਾਰ ਸਾਰੇ ਘੱਟੋ-ਘੱਟ 100 ਪੰਨਿਆਂ ਦਾ ਅਭਿਆਸ ਕਰੇਗਾ ਜੋ ਸਮੇਂ ਅੰਤ ਤੇ ਅਧਿਆਪਕ ਵਲੋਂ ਚੈਕ ਕੀਤਾ। ਇਹ ਅਭਿਆਸ ਮਿਸਲ ਸੈਸ਼ਨ ਦੇ ਅੰਤ ਤੇ ਪ੍ਰੀਖਿਆ ਸਮੇਂ ਵਿਖਾਵੇਗਾ। (ਅਭਿਆਸ ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ ਬੁਕ ਬੋਰਡ ਵਲੋਂ ਪ੍ਰਵਾਨਿਤ ਪਾਠ-ਪੁਸਤਕ
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						“ਪੰਜਾਬੀ ਟਾਈਪ-ਗਾਈਟਿੰਗ” ਵਿੱਚੋਂ ਕੀਤਾ ਜਾਵੇਗਾ)
	2. ਹੱਥ ਲਿਖਤ ਖਰੜੇ ਤੋਂ ਟਾਈਪ ਕਰਨਾ। ਕਾਰਬਨ ਕਾਪੀਆਂ ਟਾਈਪ ਕਰਨਾ।	ਵਿਦਿਆਰਥੀ ਹੱਥ ਲਿਖਤ ਖਰੜੇ ਤੇ ਟਾਈਪ ਕਰਨ ਅਤੇ ਕਾਰਬਨ ਕਾਪੀਆਂ ਟਾਈਪ ਕਰਨ ਤੋਂ ਜਾਣੂ ਹੋ ਜਾਵੇਗਾ।	ਉਕਤ	ਉਕਤ		

(ਅ)	<b>ਕੰਪਿਊਟਰ (ਸਿਧਾਂਤ)</b> 1. ਕੰਪਿਊਟਰ ਅੱਖਰ ਗਿਆਨ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ, ਵਰਡ ਰੈਪ, ਜਸਟੀਫਿਕੇਸ਼ਨ, ਬੋਲਡ ਫੇਸ, ਅੰਡਰ ਲਾਈਨ, ਬਲਾਕ ਮੂਵਮੈਂਟ, ਐਂਡਿਟ ਮੀਮੋ, ਆਨ-ਸਕਰੀਨ ਕਲਿਕ ਬਲਾਕ, ਹੈਲਪ ਮੀਨੂੰ, ਮੇਲ ਮਰਜ, ਸਪੈਲਸਟਾਰ ਡਾਟ ਕਮਾਂਡਜ	ਕੰਪਿਊਟਰ ਅੱਖਰ ਗਿਆਨ ਦੁਆਰਾ ਵਿਦਿਆਰਥੀ ਚਿੱਠੀ ਪੱਤਰ ਤਿਆਰ ਕਰਨ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।	ਪ੍ਰੈਕਟੀਕਲ ਕਰਕੇ ਵਿਖਾਉਣਾ	ਵਰਡ ਸਟਾਰ ਸਾਫਟ-ਵੇਅਰ (ਵਰਜਨ 4.0 ਜਾਂ ਇਸ ਤੋਂ ਵੱਧ) ਅਤੇ ਐਮ. ਐਸ. ਡੀ. ਓ. ਐਸ. (5.0 ਜਾਂ ਇਸ ਤੋਂ ਵੱਧ)	ਉਕਤ	
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(ੲ)	<b>ਸ਼ਾਰਟ ਹੈਂਡ(ਥਿਊਰੀ)</b> 1. ਬਦਲਵੇਂ ਸਟ੍ਰੋਕ-ਰ/ੜ,ਲ,ਵ,ਹ, (ਉਪਰਮੁਖੀ,ਹੇਠਮੁਖੀ) ਦਾ ਪ੍ਰਯੋਗ। ਹ ਟਿੱਕ ਤੇ ਹ ਬਿੰਦੀ ਦੀ ਵਰਤੋਂ	ਬਦਲਵੇਂ ਸਟ੍ਰੋਕਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।	ਧੁਨੀਆਤਮਿਕ ਪ੍ਰਣਾਲੀ ਦੁਆਰਾ ਸ਼ਾਰਟਹੈਂਡ ਸਿਖਾਉਣਾ।	ਸ਼ਾਰਟਹੈਂਡ ਕਾਪੀ, ਪ੍ਰਵਾਨਿਤ ਪਾਠ-ਪੁਸਤਕ, ਸ਼ਾਰਟਹੈਂਡ ਪੈਨਸਿਲ/ਪੈਨ	ਟਾਈਮ ਟੇਬਲ ਅਨੁਸਾਰ	1. ਹਰ ਵਿਦਿਆਰਥੀ ਪ੍ਰੀਖਿਆ ਦੇ ਅੰਤ ਤੱਕ ਘੱਟੋ-ਘੱਟ 5 ਸ਼ਾਰਟਹੈਂਡ ਕਾਪੀਆਂ (ਨੋਟ-ਬੁੱਕਾਂ) ਅਭਿਆਸ ਨਾਲ ਮੁਕੰਮਲ ਕਰੇਗਾ ਅਤੇ ਅਧਿਆਪਕ ਉਸਨੂੰ ਬਕਾਇਦਾ ਚੈਕ ਕਰੇਗਾ।
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	<p>2. ਸ਼ਬਦ-ਚਿੱਨ੍ਹ, ਸ਼ਬਦ-ਸੰਕੇਤ, ਸੰਖੇਪਤ ਸੰਕੇਤ, ਸ਼ਬਦ ਮਹੱਤਤਾ ਲੋੜ ਅਤੇ ਵਾਕਾਂਸ਼</p>	<p>ਵਿਦਿਆਰਥੀ ਸ਼ਬਦ-ਚਿੱਨ੍ਹਾਂ ਅਤੇ ਵਾਕਾਂਸ਼ਾਂ ਆਦਿ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।</p>	<p>ਉਕਤ</p>	<p>ਉਕਤ</p>	<p>ਟਾਈਮ ਟੇਬਲ ਅਨੁਸਾਰ</p>	<p>2. ਹਰ ਵਿਦਿਆਰਥੀ ਹਰ ਪਾਠ ਦੇ ਘੱਟੋ-ਘੱਟ 5 ਪੰਨਿਆਂ ਦਾ ਅਭਿਆਸ ਰੋਜ਼ ਕਰੇਗਾ ਅਤੇ ਅਧਿਆਪਕ ਉਸਨੂੰ ਮਿਤੀਵਾਰ ਚੈੱਕ ਕਰੇਗਾ। (ਇਹ ਅਭਿਆਸ ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ ਬੁੱਕ ਬੋਰਡ ਵੱਲੋਂ ਪ੍ਰਕਾਸ਼ਤ ਪਾਠ ਪੁਸਤਕ ਪੰਜਾਬੀ ਸਟੈਨੋਗ੍ਰਾਫੀ ਵਿਚੋਂ ਕੀਤਾ ਜਾਵੇਗਾ)</p>
	<p>3. ਵਿਸ਼ਰਾਮ-ਚਿੱਨ੍ਹ-ਸ਼ਾਰਟਹੈਂਡ ਵਿੱਚ ਵਰਤੇ ਜਾਣ ਵਾਲੇ ਵਿਸ਼ਰਾਮ ਚਿੱਨ੍ਹ</p>	<p>ਵਿਦਿਆਰਥੀ ਵਿਸ਼ਰਾਮ ਚਿੱਨ੍ਹਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।</p>	<p>ਉਕਤ</p>	<p>ਉਕਤ</p>	<p>ਉਕਤ</p>	
	<p>4. ਸੰਯੁਕਤ-ਸਵੱਰ-ਪਰਿਭਾਸ਼ਾ, ਵਧੇਰੇ ਸਵਰਾਂ ਨੂੰ ਸ਼ਾਰਟਹੈਂਡ ਵਿੱਚ ਚਿੰਨ੍ਹ, ਤ੍ਰਿ-ਸਵੱਰ, ਅਨਾਸਿਕ ਉਚਾਰਨ, ਬਹੁ-ਸਵੱਰ (ਤਿੰਨ ਤੋਂ ਵਧੇਰੇ ਸਵਰਾਂ ਨੂੰ ਸ਼ਾਰਟਹੈਂਡ ਵਿੱਚ ਲਿਪੀ-ਬੱਧ ਕਰਨਾ), 'ਵਾ' ਲਈ ਅੱਧੇ ਚੱਕਰ ਦੀ ਵਰਤੋਂ</p>	<p>ਧੁਨੀਆਤਮਿਕ ਪ੍ਰਣਾਲੀ ਦੁਆਰਾ ਸ਼ਾਰਟਹੈਂਡ ਸਿੱਖਣ ਦੇ ਕਾਬਲ ਹੋ ਜਾਵੇਗਾ</p>	<p>ਧੁਨੀਆਤਮਿਕ ਪ੍ਰਣਾਲੀ ਦੁਆਰਾ ਸ਼ਾਰਟਹੈਂਡ ਸਿੱਖਾਉਣਾ</p>	<p>ਸ਼ਾਰਟਹੈਂਡ ਕਾਪੀ, ਪ੍ਰਵਾਨਿਤ ਪਾਠ-ਪੁਸਤਕ, ਸ਼ਾਰਟਹੈਂਡ ਪੈਨਸਿਲ/ਪੈਨ</p>	<p>ਉਕਤ</p>	
	<p>5. ਬਿੰਦੀ-ਟਿੱਪੀ ਦੀ ਵਰਤੋਂ</p>	<p>ਅਨੁਨਾਸਿਕ ਧੁਨੀਆਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।</p>	<p>ਉਕਤ</p>	<p>ਉਕਤ</p>	<p>ਟਾਈਮ ਟੇਬਲ ਅਨੁਸਾਰ</p>	

	6. ਸ ਤੇ ਸ਼, ਜ ਚੱਕਰ ਅਤੇ ਸਟੋਕ ਦਾ ਪ੍ਰਯੋਗ	ਚੱਕਰ ਅਤੇ ਸਟੋਕ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।	ਉਕਤ	ਉਕਤ	ਉਕਤ	
(ਸ)	<b>ਦਫ਼ਤਰੀ ਕਾਰਜ ਵਿਧੀਆਂ</b> 1. ਦਫ਼ਤਰੀ ਮਸ਼ੀਨ ਤੇ ਸਮੱਗਰੀ ਮਹੱਤਵ, ਗੁਣ, ਪੰਚਿੰਗ, ਸਟੈਪਲਿੰਗ ਮਸ਼ੀਨ-ਸਿੰਗਲ ਪੰਚ, ਡਬਲ-ਪੰਚ, ਮਸ਼ੀਨ ਸਟੈਪਲਿੰਗ ਪਿੰਨ, ਟੈਗ, ਕਲਿਪ ਤੇ ਪਿੰਨ	ਵਿਦਿਆਰਥੀ ਦਫ਼ਤਰ ਵਿੱਚ ਵਰਤੀਆਂ ਜਾਣ ਵਾਲੀਆਂ ਮਸ਼ੀਨਾਂ ਬਾਰੇ ਜਾਣੂ ਹੋਵੇਗਾ	ਜਾਣ-ਪਛਾਣ ਕਰਾਉਣਾ	ਪੰਚਿੰਗ ਮਸ਼ੀਨ, ਸਟੈਪਲਿੰਗ ਮਸ਼ੀਨ, ਭਿੰਨ-ਭਿੰਨ ਕਿਸਮ ਦੇ ਟੈਗ, ਪਿੰਨ ਤੇ ਕਲਿਪ	ਉਕਤ	
	2. ਟਾਈਪ ਮਸ਼ੀਨ-ਮੈਨੂਅਲ ਟਾਈਪ ਮਸ਼ੀਨ, ਇਲੈਕਟ੍ਰਾਨਿਕ ਟਾਈਪ ਮਸ਼ੀਨ	ਵਿਦਿਆਰਥੀ ਵੱਖ-ਵੱਖ ਕਿਸਮਾਂ ਦੀਆਂ ਮਸ਼ੀਨਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ।	ਉਕਤ	ਮੈਨੂਅਲ ਟਾਈਪ ਮਸ਼ੀਨ, ਇਲੈਕਟ੍ਰਾਨਿਕ ਟਾਈਪ ਮਸ਼ੀਨ	ਉਕਤ	
	3. ਲਿਫਾਫੇ ਉਤੇ ਪਤਾ ਲਿਖਣ ਵਾਲੀ ਮਸ਼ੀਨ, ਟਿਕਟ ਛਾਪਣ ਵਾਲੀ ਮਸ਼ੀਨ, ਪੱਤਰ ਖੋਲ੍ਹਣ ਵਾਲੀ ਮਸ਼ੀਨ	ਵਿਦਿਆਰਥੀ ਇਸ ਤਰ੍ਹਾਂ ਦੀਆਂ ਮਸ਼ੀਨਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਰੱਖੇਗਾ	ਉਕਤ	ਜੇਕਰ ਸਕੂਲ ਵਿੱਚ ਇਹ ਮਸ਼ੀਨਾਂ ਉਪਲਬਧ ਨਾ ਹੋਣ ਤਾਂ ਕਿਸੇ ਦਫ਼ਤਰ ਵਿੱਚ ਲਿਜਾ ਕੇ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਇਨ੍ਹਾਂ ਬਾਰੇ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ ਦਿੱਤੀ ਜਾ ਸਕਦੀ ਹੈ।	ਉਕਤ	
	4. ਬਹੁ-ਪ੍ਰਤਿਲਿਪੀਕਰਨ-ਡੁਪਲੀਕੇਟਿੰਗ ਮਸ਼ੀਨ, ਫੋਟੋ ਕਾਪੀਅਰ/ਜਿਊਰੈਕਸ	ਇਨ੍ਹਾਂ ਮਸ਼ੀਨਾਂ ਬਾਰੇ ਵਿਦਿਆਰਥੀ ਜਾਣਕਾਰੀ ਪ੍ਰਾਪਤ ਕਰੇਗਾ।	ਜਾਣ-ਪਛਾਣ ਕਰਾਉਣਾ	ਜੇਕਰ ਸਕੂਲ ਵਿੱਚ ਇਹ ਮਸ਼ੀਨਾਂ ਉਪਲਬਧ ਨਾ ਹੋਣ ਤਾਂ ਕਿਸੇ ਦਫ਼ਤਰ ਵਿੱਚ ਲਿਜਾ ਕੇ ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਇਨ੍ਹਾਂ ਬਾਰੇ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ ਦਿੱਤੀ ਜਾ ਸਕਦੀ ਹੈ।	ਉਕਤ	
	5. ਸੰਚਾਰ ਵਿਵਸਥਾ-ਟੈਲੀਫ਼ੋਨ, ਇੰਟਰਕਾਮ	ਉਕਤ	ਉਕਤ	ਉਕਤ	ਟਾਈਮ ਟੇਬਲ ਅਨੁਸਾਰ	
	6. ਗਣਨਾ ਮਸ਼ੀਨ ਕੈਲਕੂਲੇਟਰ	ਵਿਦਿਆਰਥੀ ਗਣਨਾ ਮਸ਼ੀਨ ਤੇ ਕੈਲਕੂਲੇਟਰ ਦੀ	ਉਕਤ	ਉਕਤ	ਉਕਤ	

		ਵਰਤੋਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਾਪਤ ਕਰੇਗਾ				
	7. ਫਾਈਲਿੰਗ ਸਾਜ਼-ਸਮਾਨ, ਫਾਈਲ ਕਵਰ ਟੈਗ/ ਕਲਿੱਪ	ਵਿਦਿਆਰਥੀ ਦਫ਼ਤਰੀ ਫਾਈਲਿੰਗ ਵਿਧੀ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਾਪਤ ਕਰੇਗਾ	ਉਕਤ	ਫਾਈਲ ਕਵਰ, ਟੈਗ, ਕਲਿੱਪ	ਉਕਤ	
	8. ਦਫ਼ਤਰੀ ਸੇਵਾਵਾਂ-ਫਾਈਲਿੰਗ ਅਨੁ-ਕ੍ਰਮਣਿਕਾ	ਵਿਦਿਆਰਥੀ ਵੱਖ-ਵੱਖ ਦਫ਼ਤਰੀ ਸੇਵਾਵਾਂ-ਫਾਈਲਿੰਗ ਅਨੁਕ੍ਰਮਣਿਕਾ ਕਾਰਜ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।	ਉਕਤ	ਕਾਗਜ਼,ਫਾਈਲ ਕਵਰ, ਪੰਚਿੰਗ ਮਸ਼ੀਨ, ਟੈਗ, ਕਲਿੱਪ	ਉਕਤ	
	9. ਟੈਲੀਫੋਨ ਸੁਵਿਧਾ-ਟੈਲੀਫੋਨ ਦੀ ਵਰਤੋਂ	ਵਿਦਿਆਰਥੀ ਟੈਲੀਫੋਨ ਦੀਆਂ ਸੁਵਿਧਾਵਾਂ ਦਾ ਗਿਆਨ ਰੱਖੇਗਾ।	ਉਕਤ	ਟੈਲੀਫੋਨ, ਇੰਟਰਕਾਮ, ਟੈਲੀਫੋਨ ਡਾਇਰੈਕਟਰੀ, ਨੋਟ-ਬੁੱਕ, ਪੈਨਸਿਲ, ਟੈਲੀਫੋਨ ਸੈਟ	ਉਕਤ	

**ਪ੍ਰੀ-ਵੋਕੇਸ਼ਨਲ ਕਰੀਕੁਲਮ  
ਪ੍ਰਯੋਗੀ  
ਕਲਾਸ : 10 ਵੀਂ**

**ਪਾਠ-ਕ੍ਰਮ : ਮੁੱਢਲੇ ਦਫ਼ਤਰੀ ਕਾਰਜ ਅਤੇ ਸਟੈਨੋਗ੍ਰਾਫੀ**

**(ੳ) ਟਾਈਪ**

- ਵਿਦਿਆਰਥੀ 15 ਸ਼ਬਦ ਪ੍ਰਤਿ ਮਿੰਟ ਦੀ ਰਫ਼ਤਾਰ ਤੇ 150 ਸ਼ਬਦਾਂ ਦਾ ਪੈਰਾ ਦਸ ਮਿੰਟ ਵਿੱਚ ਟਾਈਪ ਕਰੇਗਾ।  
(ਇਹ ਪੈਰਾ, ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ ਬੁੱਕ ਬੋਰਡ ਵਲੋਂ ਪ੍ਰਕਾਸ਼ਿਤ ਪਾਠ-ਪੁਸਤਕ "ਪੰਜਾਬੀ ਟਾਈਪ-ਰਾਈਟਿੰਗ ਵਿੱਚ ਹੋਵੇਗਾ)
- ਸਿਖਲਾਈ ਦੌਰਾਨ ਵਿਦਿਆਰਥੀ ਵਲੋਂ ਕੀਤੇ ਕਾਰਜ ਦੀ ਇਕ ਫਾਈਲ ਜੋ ਘੱਟੋ-ਘੱਟ 100 ਟਾਈਪ ਕੀਤੇ ਪੰਨਿਆਂ ਦੀ ਹੋਵੇਗੀ ਪ੍ਰੀਖਿਆ ਸਮੇਂ ਵਿਖਾਵੇਗਾ। ਇਹ ਫਾਈਲ ਅਧਿਆਪਕ ਵਲੋਂ ਬਕਾਇਦਾ ਮਿਤੀਵਾਰ ਲੈਸਨ ਪਲੈਨਿੰਗ ਦੇ ਆਧਾਰ ਤੇ ਚੈੱਕ ਕੀਤੀ ਹੋਵੇ।

**(ਅ) ਸ਼ਾਰਟ ਹੈਂਡ**

**(ੳ) ਸਕਿਲ**

**(ਅ) ਅਭਿਆਸ**

- ਵਿਦਿਆਰਥੀ ਨਿਸ਼ਚਿਤ ਪਾਠਾਂ ਤੱਕ 200 ਸ਼ਬਦਾਂ ਦੇ ਸ਼ਬਦ-ਜੋੜ ਡਿਕਟੇਸ਼ਨ ਲਿਖ ਕੇ ਵਿਦਿਆਰਥੀ ਸ਼ਬਦਾਂ ਦਾ ਸਕਿਲ ਪੰਜਾਬ ਸਟੇਟ ਯੂਨੀਵਰਸਿਟੀ ਟੈਕਸਟ-ਬੁੱਕ ਬੋਰਡ ਵਲੋਂ ਨਿਰਧਾਰਿਤ ਪਾਠ ਉਸ ਦਾ ਟਾਈਪ ਮਸ਼ੀਨ ਤੇ ਲਿਪੀ-ਅੰਤਰ ਕਰੇਗਾ। ਸਮਾਂ: 30 ਮਿੰਟ ਪੁਸਤਕ "ਪੰਜਾਬੀ ਸਟੈਨੋਗ੍ਰਾਫੀ" ਵਿੱਚੋਂ ਪ੍ਰਾਪਤ ਕਰੇਗਾ।
- ਵਿਦਿਆਰਥੀ ਪ੍ਰੀਖਿਅਕ ਨੂੰ ਘੱਟੋ-ਘੱਟ ਪੰਜ ਸ਼ਾਰਟ ਹੈਂਡ ਨੋਟ-ਬੁੱਕਾਂ ਜੋ ਅਧਿਆਪਕ ਵਲੋਂ ਚੈੱਕ ਕੀਤੀਆਂ ਹੋਣਗੀਆਂ, ਵਿਖਾਵੇਗਾ।

**(ੲ) ਦਫ਼ਤਰੀ ਕਾਰਜ-ਵਿਧੀ**

- ਦਫ਼ਤਰੀ ਕਾਰਜ ਨਾਲ ਸਬੰਧਿਤ ਸਾਜ਼-ਸਮਾਨ ਤੇ ਕਾਰਜ-ਵਿਧੀ ਬਾਰੇ ਵਿਦਿਆਰਥੀ ਵਲੋਂ ਪ੍ਰਸ਼ਨ ਜ਼ਬਾਨੀ ਪੁੱਛੇ ਜਾਣਗੇ (ਵਾਈਵਾ)।



**(ਸ) ਕੰਪਿਊਟਰ (ਪ੍ਰੈਕਟੀਕਲ)**

1. ਅਧਿਆਪਕ ਵਿਦਿਆਰਥੀ ਤੋਂ ਕੰਪਿਊਟਰ ਬਾਰੇ ਮੁੱਢਲੀ ਜਾਣਕਾਰੀ ਸਬੰਧੀ ਵਾਈਵਾ ਅਤੇ ਕੰਪਿਊਟਰ ਟਾਈਪ-ਰਾਇਟਿੰਗ ਕਰਵਾਏਗਾ।
2. ਵਿਦਿਆਰਥੀ ਕੰਪਿਊਟਰ ਤੇ ਟਾਈਪ ਕਰਨ ਲਈ ਸਧਾਰਨ ਮੁਹਾਰਤ ਪ੍ਰਾਪਤ ਕਰੇਗਾ।
3. ਕੰਪਿਊਟਰ ਮੁਹਾਰਤ ਅਤੇ ਕੰਪਿਊਟਰ ਟਾਈਪ ਰਾਇਟਿੰਗ ਬਾਰੇ ਜ਼ਬਾਨੀ ਪੁੱਛੇ ਗਏ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦੇਣ ਦੇ ਯੋਗ ਹੋਵੇਗਾ।

**Time: 2 hrs**

**Time : 3 hrs**

**Theory: 30 Marks**

**Practical: 60 Marks**

**CCE: 10 Marks**

**Total: 100 Marks**

**Structure of Question Paper**

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

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

Part-II will consist of eight short answer type questions carrying 3 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 one page of the answer sheet.

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