

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	Semester	3 rd	
Course name / Module	Advance Power Tools		
Course code	SCS1301		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: 20
- Duration of Examination: 01 Hour
- Attempt all questions.
- Answer all questions from section A, each question carries one mark.
- Answer all question from section B, each question carries two marks.
- Answer all question from section C, each question carries three marks.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

- Q.1. Which one of the following accessories is used for circular saw TS 55 REBQ?
 (A) Splinter Guard (B) Trim Stop
 (C) Guide Rail (D) Both A&C
- Q.2. In the given option which accessories prevent the kick back in hand circular saw.
 (A) Guide Rail (B) Riving Knife
 (C) Side Stops (D) None of these.
- Q.3. Which one of the following machine is used for profile groove Joint?
 (A) Circular Saw (B) Jig Saw
 (C) Zeta P2 (D) Lamello Classic X
- Q.4. Which of the following is the distance between saw and riving Knife in circular Saw?
 (A) 10 mm (B) (0-5) mm
 (C) 8 mm (D) 6 mm
- Q.5. Which of the following depth is set in Zeta P2 machine while making climax P14?
 (A) 0 mm (B) 10 mm
 (C) 14mm (D) Max

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

- Q.6. What are the function of Zeta P2 machine?
- Q.7. What is the purpose of Lamello machine? Discuss in brief.
- Q.8. How free play between the biscuit and slot can be incorporated by using Domino machine discuss with diagram.

3. Section C (03 long type questions, each question carries 03 marks)**03×03 = 09**

- Q.9. What is LR 32 system? Write down the accessories name of it.
- Q.11. Explain the principle of Domino machine. Write down its accessories name.
- Q.12. Explain the procedure to change the blade of circular saw.

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	Semester	3rd	
Course name / Module	Advance Stationary Machines		
Course code	SCS1302		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

- Q.1. Which one of the following running direction of scoring saw?
 (a) Down of the main saw (c) Opposite to the main saw
 (b) Same direction of the main saw (d) All of them
- Q.2. Which one of the following is the working table width of surface planer?
 (a) 620 (c) 560
 (b) 420 (d) None of them
- Q.3. Which one of the following material we use for the table insert in band saw machine?
 (a) Iron (c) Wood
 (b) Steel (d) None of them
- Q.4. Which one of the following machine is use for profile moulding?
 (a) Panel saw (c) Band saw
 (b) Multi boring (d) None of these
- Q.5. Which one of the following is the minimum length of work piece to be machined in Thickness planer?
 (a) 360 mm (c) 260 mm
 (b) 150 mm (d) None of them

2. Section B (03 short answer type questions, each question carries 02 marks)

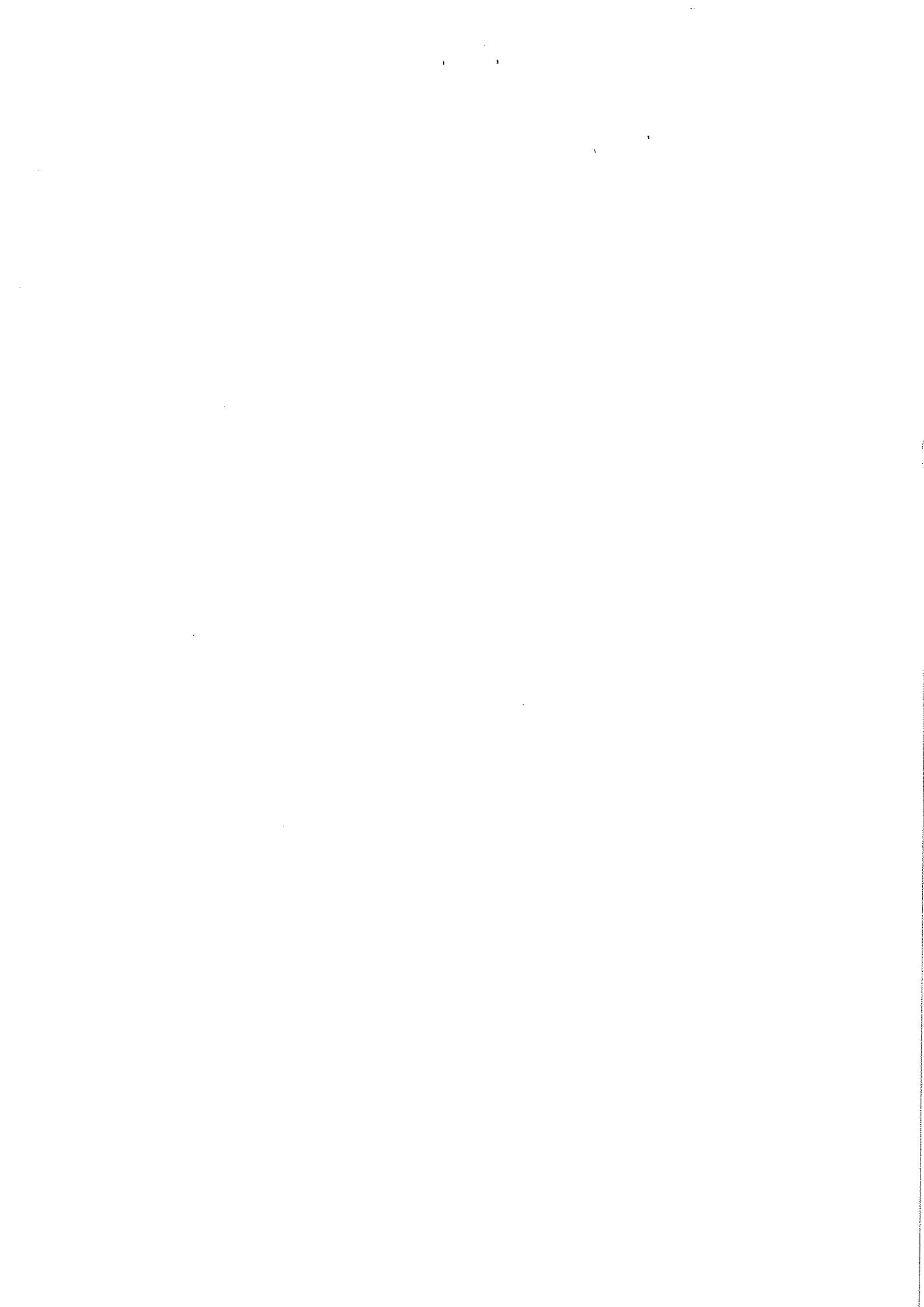
03×02 = 06

- Q. 6 Define the uses of panel saw machine?
- Q. 7 What are the general safety rules that you should follow in the workshop?
- Q. 8 Explain Crosscut fence and Extraction hood in Panel Saw.

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

- Q. 9 Write down the function of riving knife?
- Q. 10 Write down the working process of thickness planer.
- Q. 11 Describe any four types of saw blade used in Panel Saw.





THEORY 1 st - IN-SEM EXAMINATION		
SESSION: 2022-23(SUMMER SEMESTER)		
B.Voc	Semester	3rd
Course name / Module	Woodworking CAD	
Course code	GEN1309	
Date		
Name of the Student		Reg. No.

INSTRUCTIONS
<ul style="list-style-type: none">• Maximum Marks: 20• Duration of Examination: 01 Hour• Attempt all questions.• Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)	05×1 = 05
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- Q. 1 What is the Shortcut key of line command
(A) L (B) Ln
(C) PL (D) None of them
- Q. 2 What is the Shortcut key of Circle command
(A) Cir (B) C
(C) Cr (D) None of them
- Q. 3 What is the Shortcut key of move command
(A) M (B) Mo
(C) Mov (D) None of them
- Q. 4 Which default unit is used to draw mechanical drawings
(A) Metre (B) Inch
(C) Feet (D) Milimeter
- Q. 5 The command abbreviation for units is
(A) U (B) Un
(C) Ut (D) Milimeter



2. Section B (03 short answer type questions, each question carries 02 marks)	03×02 = 06
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- Q. 6 Differentiate between the line and polyline.
- Q. 7 What are the advantages of using CAD?
- Q. 8 Write any four types of Drawing command with shortcut key.

3. Section C (03 long type questions, each question carries 03 marks)	03×03 = 09
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- Q. 9 What are object selection method? Explain
- Q. 10 Write the types of line used in CAD with its significance.
- Q. 11 Differentiate between hand drawing and CAD drawing.

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	Semester	3rd	
Course name / Module	Carpenter Mathematics		
Course code	SCS1304		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

- Q. 1 $1 + \operatorname{cosec}^2 A$ is
- (a) $\cot^2 A$ (b) $\sec^2 A$
(c) $\operatorname{Cosec}^2 A$ (d) $\sin^2 A$
- Q. 2 Evaluate $\frac{\tan 27^\circ}{\cot 63^\circ}$
- (a) 2 (b) 1
(c) 0 (d) None
- Q. 3 $\operatorname{Cosec}(90-A)$ is
- (a) $\sin A$ (b) $\tan A$
(c) $\sec A$ (d) None
- Q. 4 What will be the total surface area of a cube of side 5cm in m^2
- (a) 125 (b) 25
(c) 150 (d) 0.015
- Q. 5 The Volume of a cylinder having radius 4 cm and height 7 m would be in cm^3
- (a) 352 (b) 64
(c) 343 (d) None of them

- Q. 6 Evaluate
 $\tan 65^\circ / \cot 25^\circ$
- Q. 7 If $\sin 3A = \cos (A - 26^\circ)$, where $3A$ is an acute angle, find the value of A
- Q. 8 The area of a rhombus is 240 cm^2 and one of the diagonals is 16 cm . Find the other diagonal.

2. Section C (03 long type questions, each question carries 03 marks)**03 × 03 = 09**

- Q. 9 Given $\sin A = 4/5$
find the other
trigonometric ratios of the angle A .
- Q. 10 A rectangular piece of paper $44 \text{ cm} \times 4 \text{ cm}$ is folded without overlapping to make a cylinder of height 4 cm . Find the volume of the cylinder.
- Q. 11 If a wooden tile having a shape of parallelogram whose base is 24 cm and height of 10 cm it is required to cover a floor area of 1080 m^2 . Calculate
- The number of tiles required to cover that area.
 - Cost of installing the tile in that space if cost of installation is $\text{Rs } 15 \text{ per m}^2$

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	B.Voc	Semester	3rd
Course name / Module	Advance Carpenter Materials		
Course code	SCS1307		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1 The permanent mode of deformation of a material known as _____

- (a) Elasticity
- (b) Plasticity
- (c) Slip deformation
- (d) Twinning deformation

Q.2 Which one of the following is not a type of wood panels?

- (a) Particle board
- (b) Ply board
- (c) MDF
- (d). Solid wood board

Q.3 Which of the following is not a hardwood?-----

- (a) Fir
- (b) Maple
- (c) Walnut
- (d) Cherry

Q.4 Resistance of a material against any external force is termed as -----

- (a) Stiffness
- (b) Malleability
- (c) Strength
- (d) Hardness

Q.5 Which one of the following raw materials is used for MDF?

- (a) Fiber
- (b) Wooden strips
- (c) Particles
- (d) Ply

2. Section B (03 short answer type questions, each question carries 02 marks)	03×02 = 06
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- Q.1 What is relative density of solid?
Q.2 Define wood veneer?
Q.3 What is seasoning of wood?

3. Section C (03 long type questions, each question carries 03 marks)	03×03 = 09
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- Q.1 Explain briefly- (a) Dry Bulb temperature (b) Wet bulb temperature (c) Dew Point Temperature
Q.2 Difference between Chipboard and Fierboard?
Q.3 What is difference between softwood and hardwood?

THEORY 1 st - IN-SEM EXAMINATION		
SESSION: 2022-23(SUMMER SEMESTER)		
B.Voc	Semester	5th
Course name / Module	Wood and Panel Manufacturing Specialist	
Course code	SCS1501	
Date		
Name of the Student		Reg. No.

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

- Q. 1 In which production system feedback system is available
 (A) Open loop (B) Closed loop
 (C) A & B Both (D) None of them
- Q. 2 Which cost does not depend upon the volume of production?
 (A) Cost of the building (B) Salary of watchmen
 (C) A & B Both (D) None of them
- Q. 3 Break even analysis is a tool for analysing
 (A) Fixed cost (B) Variable cost
 (C) Profit and loss (D) None of them
- Q. 4 Sum of fixed cost and variable cost is called
 (A) Total cost (B) Profit
 (C) Loss (D) Selling price
- Q. 5 Profit will occur to the organisation when
 (A) Selling price is more than Cost Price
 (B) Cost price is more than Selling Price
 (C) Cost price is equal to selling price
 (D) At no profit no loss

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

- Q. 6 If fixed cost for setting a wooden workshop is Rs 60000 and variable cost for production is Rs 15 per unit and quantity to be produced is 1000 unit then calculate the total cost of production.
- Q. 7 Discuss the term production.
- Q. 8 Discuss briefly the closed loop control system

3. Section C (03 long type questions, each question carries 03 marks)**03×03 = 09**

- Q. 9 What do you mean by Break even analysis? Explain.
- Q. 10 Explain the Fixed cost, variable cost and sales revenue with graph.
- Q. 11 Calculate the Break even point if
- Fixed factory overheads cost = Rs 60000
 - Fixed Salary overheads Cost = Rs 12000
 - Variable production cost = Rs 12
 - Variable Selling cost = Rs 3
 - Selling price per unit = Rs 24

THEORY 1 ST - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	B.Voc	Semester	5 th
Course name / Module	Project planning specialist in Cabinetmaking and Joinery		
Course code	SCS1504		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

- Q.1 When assembling a cabinet, which is the first task to undertake?
- Fit the shelves
 - Find all the parts
 - Prepare the work area
 - Join the front and back
- Q.2 What is a critical path?
- It is a path that operates from the starting node to the end node.
 - It is a mixture of all the paths
 - It is the longest path
 - It is the shortest path
- Q.3 Which of the following is not a phase of project management?
- Project planning
 - Project scheduling
 - Project controlling
 - Project being
- Q.4 CPM is
- Synthesising in concepts
 - Is built of activities oriented programme
 - Is based on time estimate
 - All the above
- Q.5 Critical paths is defined as one that gives
- The longest time of completion of the project
 - The smallest time of completion of the project
 - The average time of the completion of the project
 - None of the above

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

- Q.1 What is Project?
- Q.2 What is project management?
- Q.3 Why the project management is important?

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

- Q.1 What is difference between Cabinetmaker and joiner.
- Q.2 What are the human aspects of project management?
- Q.3 What is PERT and CPM?

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THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	B.Voc	Semester	5th
Course name / Module	Advance Carpenter Mathematics		
Course code	SCS1505		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q. 1 The mean of a sample is

- Always equal to the means of the population
- always smaller to than the means of population
- computed by summing the data values and dividing the sum by (n-1)
- computed by summary all the data values and diving the sum by the number of items

Q.2 With what can Natural numbers be defined?

- A
- ∞
- N
- >

Q.3 A numerical value used as a summary measure for a sample, such as sample mean, is known as a

- Population parameter
- Sample parameter
- Sample staticstic
- Population mean
- None of the above answer is correct

Q.4 Since the mode is the most frequestly occuring data, it

- can never be larger than the mean
- is always larger than the meadian
- is always larger than the mean
- must have a value of at least two
- None of the above answer is correct

Q.5 Which one statement is true Statistics is meyhodology for

- Collecting data
- analysis data
- interpreting
- All the above

2. Section B (03 short answer type questions, each question carries 02 marks)

$03 \times 02 = 06$

Q.1 What is mean or average? How can calculate value the mean?

Q.2 What is median? How can calculate value the median?

Q.3 What is mode? How can calculate value the mode?

3. Section C (03 long type questions, each question carries 03 marks)

$03 \times 03 = 09$

Q.1 What is statistics? Explain types of Statistics?

Q.2 Difference between Sample and population?

Q.3 What do you y Means and Modes, Explain with suitable example.

3. Section C**03×03 = 09**

Q.9 What is project planning and what do you understand by BOM explain?

Q.10 Define basic need of part list creation and also define any four advantages.

Q.11 Define Part Menu and explain any two standard shapes.

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B. Voc	Semester	5 th	
Course name / Module	CAD 3D Drawing		
Course code	SCS1506		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS
<ul style="list-style-type: none"> • Maximum Marks: 20 • Duration of Examination: 01 Hour • Attempt all questions.

1. Section A	05×1 = 05
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Q.1 Which one of the following could be a PYTHA drawing file?

- (a) Dwg.pytha (b) Dwg.pth
(c) Project.poy (d) Plan.pyo

Q.2 Which one of the following function is used for 2D & 3D production?

- (a) Radiolab (b) Model
(c) Module (d) Central

Q.3 Which one of the following is not from Parts function?

- (a) Cone (b) Cylinder
(c) Cube (d) Auxiliary Line

Q.4 Which one of the following is the short key for Ring function?

- (a) R (b) I
(c) Ctrl+R (d) Shift+I

Q.5 The internal angle of regular pentagon is-

- (a) 72° (b) 90°
(c) 120° (d) 108°

2. Section B	03×02 = 06
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Q.6 What do you understand by product design?

Q.7 What do you understand by CAD and how CAD improves productivity in wood working?

Q.8 Define Project Header and list out any six inputs from PYTHA dialog window.

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Manufacturing Technology		
Course code	SCS2101		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. Why do the felled trees have to be debarked?

- A) So that the wood dries faster
- B) To reduce the infestation of wood pests such as beetles and fungi
- C) To save weight for transport
- D) To see the quality of the wood as well as to detect wood defects

Q.2. Why should a felled tree be cut into individual boards or beams as soon as possible?

- A) So that there is room in the forest for replanting trees.
- B) Because moist sawdust raises less dust than dry sawdust.
- C) To reduce the weight for later transportation.
- D) So that the wood dries faster and there are fewer shrinkage cracks

Q.3. There are various regulations, rules and quality labels for the global timber trade.

Which label guarantees that the forests are used sustainably.

The forests are reforested and illegal trade is prevented?

- A) ITTA International Timber Trade Association
- B) I-Label Indian Quality / Agro Marketing India
- C) FSC Forest Stewardship Council
- D) PRFCS Program for the recognition of forest certification systems



Q.4. Plywood panels are made from several layers of veneer. Which statement is correct?

- A) The number of veneer layers is even. For example 8 layers
- B) The number of veneer layers is odd. For example 5 layers
- C) Plywood is always made from peeled veneer.
- D) Plywood always has a core of cheap wood. For example pine or balsa

Q.5. Chipboard is made from wood chips. Which statement is correct?

- A) All wood chips are the same size to ensure stability.
- B) Due to the lignin in the wood, no glue is needed to make the board.
- C) The outer wood chips are always finer than the middle layer.
- D) Spam boards are only made from spruce wood

2. Section B (03 short answer type questions, each question carries 02 marks)
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03×02 = 06

**Q.6 What are the characteristics/advantages/disadvantages of plywood panels?
Name 4 of them.**

**Q.7 What are the properties/advantages/disadvantages of chipboard?
Name 4 of them.**

**Q.8 You have bought a log with different boards. How do they store the boards.
What do they have to pay attention to?**

3. Section C (03 long type questions, each question carries 03 marks)
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03×03 = 09

**Q.9 Can you explain the process of chipboard production to me?
From the delivery of the roundwood to the dispatch of the finished boards.**

**Q.10 You need to cover a chipboard with laminate.
What do you have to pay attention to? What are the possibilities? How do they proceed?**

**Q.11 A customer wants a solid wooden table from you.
The table is for the living room where there is air conditioning (AC).
The table top is 2400 mm long, 1000 mm wide and 50 mm thick.
What do you look for when buying wood and during production?**

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Properties of Timber		
Course code	SCS2104		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. What is the basic building material of wood.

- A) Fructose B) Glucose C) Cane sugar D) Lactose

Q.2. What are the cell walls of wood made of?

- A) Lignin B) Viscose C) Cellulose D) Core materials

Q.3. When trees are felled in the forest, they still have a high moisture content.

How high can the moisture content of freshly felled wood be?

- A) Water content and wood weight are 1:1
For example of teak density 650KG/m³ = 650 litres of water in the wood.
- B) Water content is mostly between 8% and 14%
- C) The water content varies depending on the type of wood.
For example, beech 110%, spruce 150%, balsa 600%.
- D) The water content is a maximum of 100% of the wood weight

Q.4. The tree must be supplied with water and minerals from the root to the leaf.

In which part of the trunk does the transport take place?

- A) In the heartwood B) In the bark C) In the sapwood D) In the cambium

Q.5. We often speak of softwood or hardwood. Which statement is correct?

- A) Tropical wood is always hardwood
- B) Hardwoods and conifers both exist as deciduous and coniferous trees.
Both in the tropics and in the temperate zones
- C) All conifers are softwoods
- D) All deciduous trees are hardwoods



2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6 List 4 different wood defects

Q.7 List 4 different wood pests (insects, fungi, etc.)

Q.8 Structure of the log.

Name the individual layers of the wood from the outside to the inside.

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9 Describe photosynthesis/assimilation

Q.10 What does the fibre saturation point mean for solid wood?

What happens to the wood below the fibre saturation point?

Make a few examples and name the different shrinkage masses?

Q.11 You have received an order from a customer to make a patio grid for the garden.

The area is 4500mm x 6000mm. The wood is pine.

What do you have to take care of?

What precautions do you take?



THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Surface Techniques & Technology		
Course code	SCS2102		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. Complementary colors, are the colors that are opposite each other in the color wheel. Which statement is correct.

- A) The complementary color of red is green, of blue is orange, of yellow is violet
- B) The complementary color of blue is green, of yellow is orange, of red is violet
- C) The complementary color are only red, blue, yellow
- D) The complementary color are only black and white

Q.2. There are various color systems around the world.

Many manufacturers and the various industries know their own systems. Which of the 4 examples is not an color system?

- A) RAL
- B) NCS
- C) ISC
- D) Pantone

Q.3. During surface treatment of wood (oiling or painting), intermediate sanding is performed.

What type of grit is normally used for sanding?

- A) 60 or 80
- B) 100 or 120
- C) 150 or 180
- D) 220 or 280

Q.4. For painted surfaces there are different designations as this reflect the light. Which is not a correct designation?

- A) glossy
- B) rough
- C) matt
- D) satin



Q.5. You need to varnish a solid wood transparent.

Unfortunately, the wood has small pressure marks. What can they do.

- A) Steam out the pressure point with hot water.
- B) Wood cement filler
- C) Spot sanding
- D) apply more varnish in these places

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6. In surface treatment, a distinction is made between chemical and physical drying. Give two examples of chemically drying surface products. Give two examples of physically drying surface products.

Q.7. What kind of material and finish is best for outdoor furniture.

Q.8. Before you apply any surface treatment, you need to sand the wood. The edges should be slightly rounded (minimum radius 1 mm or more). Why is this important?

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9. Why do we perform surface treatment of wood?

What is the surface treatment useful for?

Q.10. When processing paint with a spray gun, there are a few things to consider.

Please describe what specifically needs to be observed.

Q.11. There are some things to consider when processing furniture oil.

Please describe what specifically needs to be observed.

THEORY 1 ST - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Interior Designing		
Course code	SCS2307		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS
<ul style="list-style-type: none"> • Maximum Marks: 20 • Duration of Examination: 01 Hour • Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)	05×1 = 05
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Q.1. Proportions of chairs. What masses are correct

- A) The seat height should always be 440 mm.
- B) The backrest must form an angle of 90 degrees to the seat.
- C) The seat height is usually between 420mm and 460mm.
Important is the distance to the table of about 300mm.
- D) The seat height is always based on the people. Small people must have higher chairs.

Q.2. Proportions of closets. Which dimensions are correct?

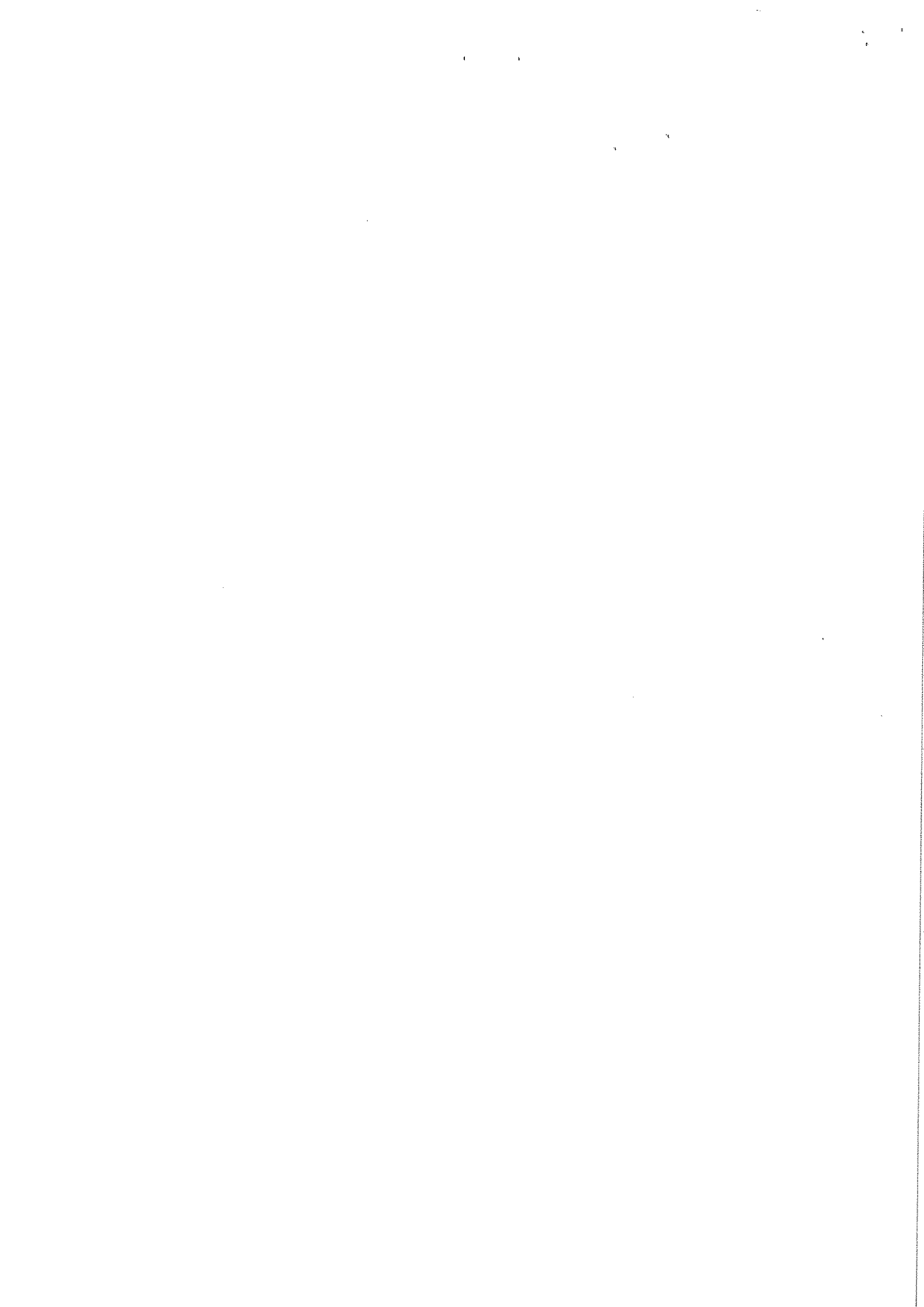
- A) The clothes rail must be at least 1800 mm from the floor.
- B) The clothes rail should always be 1000mm from the floor.
- C) Normally a clothes rail is between 1400mm and 1600mm from the floor or as needed
(e.g. in kindergartens or nursing homes).
- D) It is best if the customer can assemble the clothes rail by himself.

Q.3. Proportions of kitchens. Which dimensions are correct?

- A) The working height depends on the sink.
- B) Normally, the kitchen cover is 880mm to 940mm from the floor.
- C) The DIN standard is decisive.
- D) The working height depends on the window height. If a window is 750 mm high,
the cover is also made in this height.

Q.4. How deep is a kitchen cabinet above cover

- A) 320mm-360mm
- B) max. 320mm
- C) depending on plate
- D) 360mm or more



Q.5. What is the width of kitchen appliances for installation?

- A) Standard 600 mm. However, there are also special appliances with a specific width.
- B) In India, the widths are in inches. Standard 25 inches
- C) Depending on the continent. Europe 550mm, Asia 600mm, North America 800mm.
- D) The width of the device depends on the size of the family.

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6. What materials are suitable for a kitchen countertop? Name two of them

Q.7. Kitchen appliances. Tell me 4 brands of well-known built-in appliance manufacturers.

Q.8. What materials are suitable for the kitchen furniture inside and why?

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9. You have an order to plan a kitchen. what do you pay attention to?

Q.10. What do you need to pay attention to when planning kitchen appliances?

Q.11. You can make a dream kitchen for yourself. What are their considerations?



THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Design Technology		
Course code	SCS2105		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. In which paper formats are the plans usually printed?

- A) A4, A3, A2, A1 B) B4, B3, B2, B1 C) C4, C3, C2, C1 D) D4, D3, D2, D1

Q.2. For printing plans there are printers or plotters.

What is the advantage of a plotter?

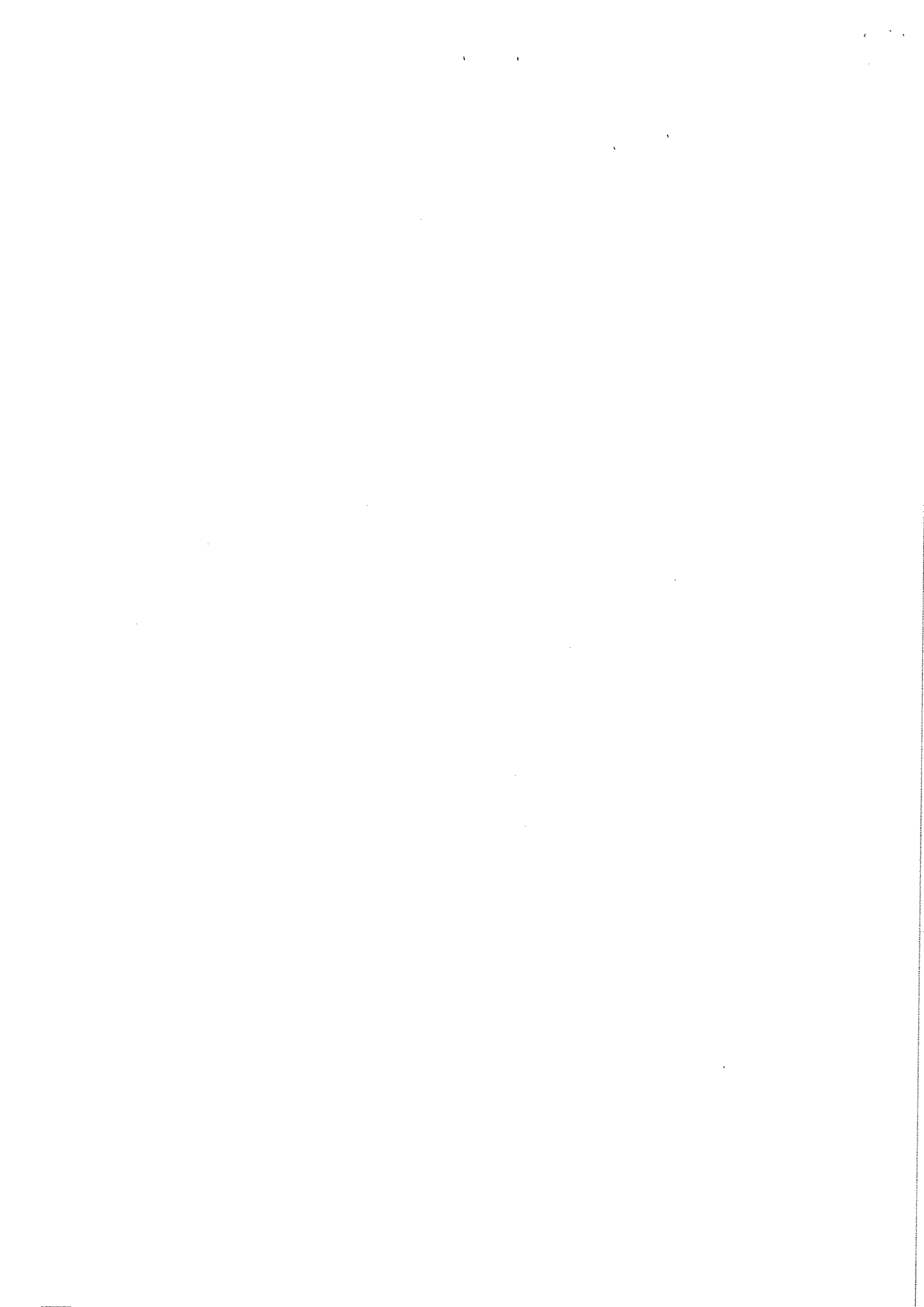
- A) With the plotter you can fold the plan directly.
 B) The format is limited only in width because the paper is usually on a roll.
 C) The plotter is cheaper because you can use all kinds of paper.
 D) A plotter can transfer the plans directly to a wooden board and cut them out.

Q.3. In the detailed drawings, the different materials are identified by short designations and/or hatching. Which statement is correct?

- A) All panel materials are referred to as board only. All woods are referred to as solid wood only.
 B) You can distinguish the different materials by hatching. For example: glass, solid wood, board, metal, laminate and veneer.
 C) The type of hatching is not important. It only identifies what is being cut.
 D) The hatching must also be made in the plans 1:10 and 1:20.

Q.4. Cabinet maker plans are drawn in different scales. What are the usual scales?

- A) Everything always 1:1
 B) is not relevant. The dimension is important.
 C) Usually 1:10 or 1:20. Details 1:1.
 D) Thanks to CNC, scale no longer matters.



- Q.5. You need to draw a small built-in wardrobe.
How do they proceed. What do they draw first**
- A) Floor plan (horizontal section), side section, front view, details.
 - B) Front view only
 - C) Only the perspective
 - D) Only the dimensions are necessary and the details

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

- Q.6. When sizing plans, there are certain specifications.
In which section is the depth of the tray measured?**
- Q.7. We know different forms of perspective drawings. Please name 4 of them.**
- Q.8. What information belongs in a title block. Name 4 pieces of information**

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

- Q.9. Where does our sense of good design come from. How are we influenced?**
- Q.10. Function - Proportion – Construction or Form follows function
Why is this important. Make an example**
- Q.11. In the past, the plans had to be drawn by hand.
In a modern joinery, we draw with CAD. What are the advantages of CAD?**



2. Section B (03 short answer type questions, each question carries 02 marks)**03 × 02 = 06**

Q. 6 Evaluate

$$\tan 65^\circ / \cot 25^\circ$$

Ans. $\cot A = \tan (90^\circ - A)$

$$\text{So, } \cot 25^\circ = \tan (90^\circ - 25^\circ) = \tan 65^\circ,$$

$$\tan 65^\circ / \cot 25^\circ = \tan 65^\circ / \tan 65^\circ = 1$$

Q. 7 If $\sin 3A = \cos (A - 26^\circ)$, where $3A$ is an acute angle, find the value of A Ans. $\sin 3A = \cos (A - 26^\circ)$.

$$\text{Since } \sin 3A = \cos (90^\circ - 3A),$$

$$\text{we can write (1) as } \cos (90^\circ - 3A) = \cos (A - 26^\circ)$$

$$\text{Since } 90^\circ - 3A \text{ and } A - 26^\circ \text{ are both acute angles,}$$

$$\text{therefore, } 90^\circ - 3A = A - 26^\circ \text{ which gives } A = 29^\circ$$

Q. 8 The area of a rhombus is 240 cm² and one of the diagonals is 16 cm. Find the other diagonal.

Ans.

Let length of one diagonal $d_1 = 16$ cmand length of the other diagonal = d_2

$$\text{Area of the rhombus} = \frac{1}{2} (d_1 \times d_2) = 240$$

$$\text{Therefore, } d_2 = 240/8 = 30 \text{ cm}$$

Hence the length of the second diagonal is 30 cm.

3. Section C (03 long type questions, each question carries 03 marks)**03 × 03 = 09**Q. 9 Given $\sin A = 4/5$

find the other

trigonometric ratios of the angle A .

Ans.

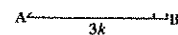
Therefore, if $BC = 4k$, then $AB = 5k$, where k is a positive number.

Fig. 8.8

Now, by using the Pythagoras Theorem, we have

$$AC^2 = AB^2 - BC^2 = (5k)^2 - (4k)^2 = 25k^2 - 16k^2 = 9k^2$$

So,

$$AC = 3k$$

Now, we can write all the trigonometric ratios using their definitions.

$$\sin A = \frac{BC}{AB} = \frac{4k}{5k} = \frac{4}{5}$$

$$\cos A = \frac{AC}{AB} = \frac{3k}{5k} = \frac{3}{5}$$

$$\text{Therefore, } \cot A = \frac{1}{\tan A} = \frac{3}{4}, \csc A = \frac{1}{\sin A} = \frac{5}{4} \text{ and } \sec A = \frac{1}{\cos A} = \frac{5}{3}$$

Q. 10 A rectangular piece of paper 44 cm × 4 cm is folded without overlapping to make a cylinder of height 4 cm. Find the volume of the cylinder.

Ans. Let radius of the cylinder = r

$$\text{height} = h$$

$$\text{Perimeter of the base of the cylinder} = 2\pi r = 44 \text{ or } 22/7 \times 2 \times r = 44$$

$$\text{Therefore, } r = 7 \text{ cm}$$

$$\text{Volume of the cylinder} = V = \pi r^2 h = 22/7 \times (7)^2 \times 4 \text{ cm}^3 = 616 \text{ cm}^3$$

Hence the volume of the cylinder is 616 cm^3 .

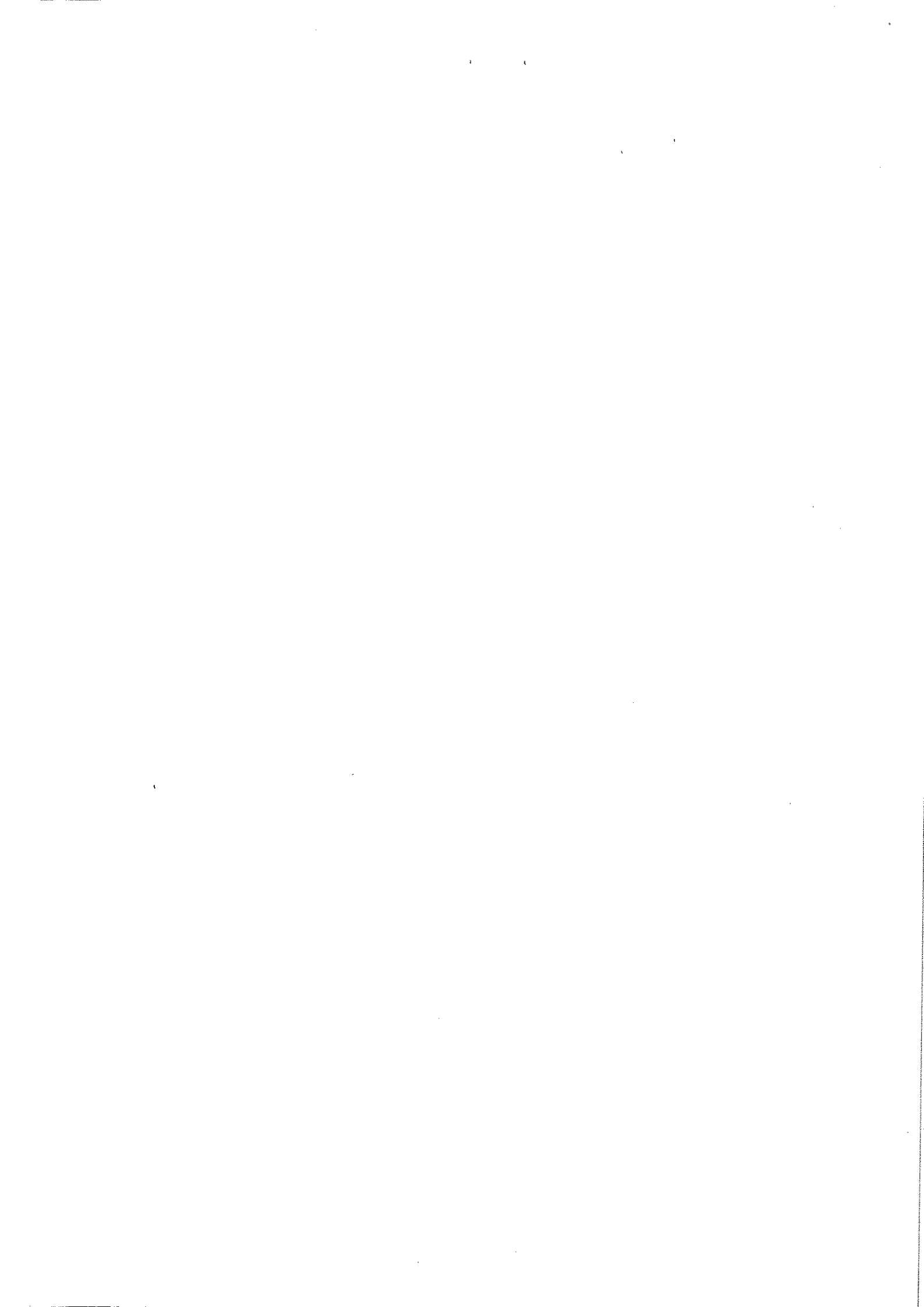
Q. 11 If a wooden tile having a shape of parallelogram whose base is 24 cm and height of 10 cm it is required to cover a floor area of 1080 m^2 . Calculate

- a. The number of tiles required to cover that area.
- b. Cost of installing the tile in that space if cost of installation is Rs 15 per m^2

Ans. Area of parallelogram = $24 \times 10 = 240$

No. Of tiles required = $10800000/240$
= 45000

Cost of installation = 1080×15
= Rs. 16200



THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	Semester	3rd	
Course name / Module	Advance Stationary Machines		
Course code	SCS1302		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS
<ul style="list-style-type: none"> • Maximum Marks: 20 • Duration of Examination: 01 Hour • Attempt all questions. • Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)	05×1 = 05
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- Q.1. Which one of the following running direction of scoring saw?
 (a) Down of the main saw (c) Opposite to the main saw
 (b) Same direction of the main saw (d) All of them (c)
- Q.2. Which one of the following is the working table width of surface planer?
 (a) 620 (c) 560
 (b) 420 (d) None of them (d)
- Q.3. Which one of the following material we use for the table insert in band saw machine?
 (a) Iron (c) Wood
 (b) Steel (d) None of them (c)
- Q.4. Which one of the following machine is use for profile moulding?
 (a) Panel saw (c) Band saw
 (b) Multi boring (d) None of these (d)
- Q.5. Which one of the following is the minimum length of work piece to be machined in Thickness planer?
 (a) 360 mm (c) 260 mm
 (b) 150 mm (d) None of them (c)

2. Section B (03 short answer type questions, each question carries 02 marks)	03×02 = 06
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- Q. 6 Define the uses of panel saw machine?
 Ans. Panel saws are used by woodworking industry to easily cut panels, profiles, solid-wood, plywood, MDF, laminates, plastic sheets and melamine sheets into sizes or cabinet components. They are also used by sign shops to cut sheets of aluminum, plastic and wood for their sign blanks.
- Q. 7 What are the general safety rules that you should follow in the workshop?
 Ans. **General information about safety rules -**

Before attempting any work or using any power tool or machines there are general safety rules which everyone should follow in order to keep himself and others safe in workshop.

- Always wear safety shoes in the workshop.
- Always carry ear plug to the training center.
- Always use ear plug when working on a machine.
- Keep hands away from moving/rotating machinery.
- Use hand tools carefully, keeping both hands behind the cutting edge.

Q. 8 Explain Crosscut fence and Extraction hood in Panel Saw.

Ans. **Crosscut fence** - The robustly mounted crosscut fence enables precise cutting of 90 degree angles. All setting is easy to read off the slanted scales. The flip stops are robust, free of play and are easy to slide individually along the full crosscutting range.

Extraction hood - The riving knife mounted protection and extraction hood allows a maximum saw blade diameter of 315mm with a maximum cutting height of 82mm.

3. Section C (03 long type questions, each question carries 03 marks)	03×03 = 09
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Q. 9 Write down the function of riving knife?

Ans.

- The riving knife is fastened behind the saw blade.
- Its keeps the kerf open in separating cuts.
- If the riving knife is missing, the joint can be closed by the compression in the wood.
- Riving knife allows the ascending part of the sprocket to grasp the work piece.
- Riving knife must be thinner than the cutting width (tooth thickness) of the cutting blade.

Q. 10 Write down the working process of thickness planer.

Ans.

- Make sure that top cover is closed.
- Make sure that the emergency button is released, otherwise turn them in the arrow direction.
- Make sure that the dust collector is on.
- Turn main switch on.
- Turn starter to star position, after some second turn it to delta position.
- To lift or to lower the thicknessing table operate on selector, the table moves at high speed to the direction indicated by the selector.
- Reach the right position with micrometric shiftments of the thicknessing table by pressing button, which will carry shiftments at low speed only upwards.

Q. 11 Describe any four types of saw blade used in Panel Saw.

Ans. Four types of blades used in panel saw are –

1. Universal blade - This blade is used for cutting both solid wood and panels. This blade has 48 tooth.
2. Solid wood cross cut - This blade is used for cutting solid wood cross cuts. This blade has 96 tooth.
3. Solid wood along grains - This blade is used for cutting solid wood along grains with chip thickness limitation. This blade has 28 tooth.
4. Razor cut - This blade is used for cutting hard materials such as acrylic, HPL, laminates. This blade is not used for solid wood. This blade has 72 tooth.

THEORY 1 ST - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	Semester	3 rd	
Course name / Module	Advance Power Tools		
Course code	SCS1301		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.
- Answer all questions from section A, each question carries one mark.
- Answer all question from section B, each question carries two marks.
- Answer all question from section C, each question carries three marks.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

- Q.1. Which one of the following accessories is used for circular saw TS 55 REBQ?
 (A) Splinter Guard (B) Trim Stop
 (C) Guide Rail (D) Both A&C Ans. D
- Q.2. In the given option which accessories prevent the kick back in hand circular saw.
 (A) Guide Rail (B) Riving Knife
 (C) Side Stops (D) None of these. Ans. B
- Q.3. Which one of the following machine is used for profile groove Joint?
 (A) Circular Saw (B) Jig Saw
 (C) Zeta P2 (D) Lamello Classic X Ans. C
- Q.4. Which of the following is the distance between saw and riving Knife in circular Saw?
 (A) 10 mm (B) (0-5) mm
 (C) 8 mm (D) 6 mm Ans. B
- Q.5. Which of the following depth is set in Zeta P2 machine while making climax P14?
 (A) 0 mm (B) 10 mm
 (C) 14mm (D) Max Ans. D

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6. What are the function of Zeta P2 machine?

Ans. Function of Zeta P2 are as follows:

1. Automatic Vertical movement create the Profile groove which enables to make the stronger joint.
2. It enables the fast locking system.
3. Easy assembling and disassembling.

Q.7. What is the purpose of Lamello machine? Discuss in brief.

Ans. **Lamello Classic X**

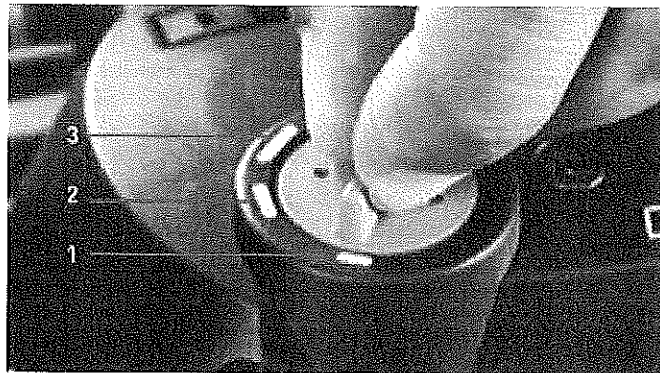
It is a slot or Groove making machine for Joining one or more wooden pieces or panels together by inserting the require size biscuit in the created slot/

Accessories

1. Square Stop
2. Spacer

Q.8. How free play between the biscuit and slot can be incorporated by using Domino machine discuss with diagram

Ans. Depending on the requirements, the fixing hole or on of the elongated holes must be adjusted. The width of the slots cab be changed by simply switching while the dowel router is running. Only one fixing hole is needed to get a perfect fit without alignment.



3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9. What is LR 32 system? Write down the accessories name of it.

Ans. **LR 32 System**

The festool Hole Guide System can be used in basically two modes, free-form and as a 32 mm system hole guide. In free form-form operations, most common use would be to create a series of shelf pin holes in cabinets. The name of the 32 mm system originates from the centre to centre spacing of the holes in the drill pattern. These holes controls the locations of door hinges, drawer glides, other hardware and the locations of the parts that make up the cabinet itself.

Accessories

1. Guide plate
2. Centering mandrel
3. Indexing rail
4. Side stops
5. End stops

Q.11. Explain the principle of Domino machine. Write down its accessories name.

Ans. **Principle**

It states that the simultaneous rotation and pendulum movement of the cutter allows smooth working and creates holes without scorch marks

Accessories

1. Cross Stop
2. Trim Stop
3. Hand Rail Fence
4. Additional fence

Q.12. Explain the procedure to change the blade of circular saw.

Ans. Steps to change the blade of circular saw are as follows:

1. Take out the Allen key which is placed at the top of the circular saw.
2. Tilt up the fast fix from its position and take the saw blade below from its zero position.
3. Rotate the nut and loosen it
4. Carefully take out the blade from its position.
5. Put the new saw blade according to the work piece.
6. Tight it with the help of Allen key.

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	Semester	5th	
Course name / Module	Wood and Panel Manufacturing Specialist		
Course code	SCS1501		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS
<ul style="list-style-type: none"> • Maximum Marks: 20 • Duration of Examination: 01 Hour • Attempt all questions. • Any other instruction may be included, If required.

1. Section A (05 objective type questions, each question carries 01 mark)	05×1 = 05
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- Q. 1 In which production system feedback system is available
 (A) Open loop (B) Closed loop
 (C) A & B Both (D) None of them Ans. B
- Q. 2 Which cost does not depend upon the volume of production?
 (A) Cost of the building (B) Salary of watchmen
 (C) A & B Both (D) None of them Ans. C
- Q. 3 Break even analysis is a tool for analysing
 (A) Fixed cost (B) Variable cost
 (C) Profit and loss (D) None of them Ans. C
- Q. 4 Sum of fixed cost and variable cost is called
 (A) Total cost (B) Profit
 (C) Loss (D) Selling price Ans. A
- Q. 5 Profit will occur to the organisation when
 (A) Selling price is more than Cost Price
 (B) Cost price is more than Selling Price
 (C) Cost price is equal to selling price
 (D) At no profit no loss Ans. A

2. Section B (03 short answer type questions, each question carries 02 marks)	03×02 = 06
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- Q. 6 If fixed cost for setting a wooden workshop is Rs 60000 and variable cost for production is Rs 15 per unit and quantity to be produced is 1000 unit then calculate the total cost of production.

Ans. $T. C = F.C + V.C$
 $= 60000 + 15 \times 1000$
 $= 210000$

Q. 7 Discuss the term production.

Ans. Production can be defined as the value addition process in which one form of material is converted into the another form through some transformation process.

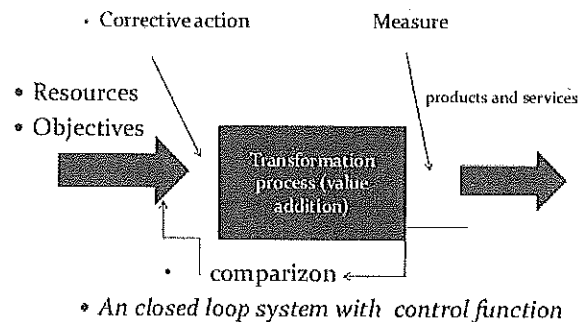
Q. 8 Discuss briefly the closed loop control system

Ans. **Closed-Loop Control System-**

The closed-loop control system can be defined as the output of the system that depends on the input of the system. This control system has one or more feedback loops among its input & output. This system provides the required output by evaluating its input. This kind of system produces the error signal and it is the main disparity between the output and input of the system.



CLOSED LOOP CONTROL SYSTEM



3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q. 9 What do you mean by Break even analysis? Explain.

Ans. Break Even Analysis is the study of cost-volume of production profit (CVP) relationship. Profit mainly depends upon three factors-

- Cost of production
- Amount of input
- Sales revenue

It is an analysis to study the point where neither profit nor loss is occurred. This point is known as Break Even Point.

Q. 10 Explain the Fixed cost, variable cost and sales revenue with graph.

Ans. Cost of production is sum of two costs: variable cost and fixed cost.

Fixed cost are assumed to be constant at all levels of output. e.g. Expenditure on permanent labours and overheads (Administrative cost).

Variable cost increases with the increase of output of production i.e. (material cost , inventory cost etc.

Sales revenue is the income obtained by selling out the project.

- Q. 11 Calculate the Break even point if
 Fixed factory overheads cost = Rs 60000
 Fixed Salary overheads Cost = Rs 12000
 Variable production cost = Rs 12
 Variable Selling cost = Rs 3
 Selling price per unit = Rs 24

Ans.

	Fixed Cost
(i) Break-even point	$\frac{\text{Selling Price per unit} - \text{Variable Cost per unit}}{\text{Selling Price per unit} - \text{Variable Cost per unit}}$
Variable Cost per unit	$= ₹ 12 + 3 = ₹ 15$
Total Fixed Cost	$= ₹ 60,000 + 12,000 = ₹ 72,000$
B.E.P.	$= \frac{72,000}{24 - 15} = 8,000 \text{ units}$
B.E.P. (in sales values)	$= 8,000 \times 24 = ₹ 1,92,000$
(ii) Number of units that must be sold to earn profit of ₹ 90,000	$\frac{\text{Fixed Cost} + \text{Profit}}{\text{Selling Price per unit} - \text{Variable Cost per unit}}$
	$= \frac{72,000 + 90,000}{24 - 15} = \frac{1,62,000}{9} = 18,000 \text{ units.}$



THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B. Voc	Semester	5 th	
Course name / Module	CAD 3D Drawing		
Course code	SCS1506		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS
<ul style="list-style-type: none">• Maximum Marks: 20• Duration of Examination: 01 Hour• Attempt all questions.

1. Section A	05×1 = 05
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- Q.1 Which one of the following could be a PYTHA drawing file?
(a) Dwg.pytha (b) Dwg.pth
(c) Project.poy (d) Plan.pyo (d)
- Q.2 Which one of the following function is used for 2D & 3D production?
(a) Radiolab (b) Model
(c) Module (d) Central (b)
- Q.3 Which one of the following is not from Parts function?
(a) Cone (b) Cylinder
(c) Cube (d) Auxiliary Line (d)
- Q.4 Which one of the following is the short key for Ring function?
(a) R (b) I
(c) Ctrl+R (d) Shift+I (b)
- Q.5 The internal angle of regular pentagon is-
(a) 720 (b) 900
(c) 1200 (d) 1080 (d)

2. Section B	03×02 = 06
---------------------	-------------------

Q.6 What do you understand by product design?
Ans. A product is designed to meet certain functional requirements, and to satisfy the customer needs. At the same time product must be aesthetically appealing to the customer. New technology and new materials currently available will also be explored during the product design stage. A product consists of assemblies, sub-assemblies and component parts. If the product is to manufactured to customer's specification, the design is provided by the manufacturer's as per demand by customer.

Q.7 What do you understand by CAD and how CAD improves productivity in wood working?

Ans. Auto CAD is a computer added design and drafting software used in architecture, construction and manufacturing to prepare engineering drawing in terms of 2D and 3D by electronic method. This CAD is time saving process to drawing. Saved file we can transfer easily where we want by electronic method. It is also easy in PDF file which they can open to view and print.

CAD offers time saving process in drawing. As per high technology we can draft a drawing with help of different predefined library from this library we can use a lots of shapes, material, accessories of joinery etc. We can also set a template file in which we can fix our all drawing settings as well as some materialistic objects. Saved file we can transfer easily where we want by electronic method. It is also easy in PDF file which they can open to view and print.

Q.8 Define Project Header and list out any six inputs from PYTHA dialog window.

Ans. For every project we need to give some detail to show on drawings. These details can be as the project name, the customer's name as well as their contact details, the delivery date etc. can be saved. Once it has been saved, this information can automatically be accessed by the parts list, the title block of the plotting sheet as well as the label printing and the DXF export functions of the PYTHA workshop. Changes, if necessary, need to be applied once only, in the project header.

The project header offers ten customizable lines that can be renamed to match your requirements. This means that not only the input in the according dialogue fields can be selected freely, also the names of the fields can be changed. For example, the field "Project" could be renamed into "Assignment", the line "email" into "Customer number" etc.

- a. Project Name
- b. Customer Name
- c. Company Name
- d. Delivery date
- e. Email
- f. Address

3. Section C	03×03 = 09
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Q.9 What is project planning and what do you understand by BOM explain?

Ans. Project Planning - Project planning is a step in project management, where requires several inputs, including conceptual proposals, project schedules, resource requirements and limitations with serval documentation is created to ensure successful project completion. Documentation includes all actions required to define, prepare, integrate and coordinate additional plans. The project plan clearly defines how the project is executed, monitored, controlled and closed.

Project planning is a discipline for stating how to complete and structuring a project within a certain timeframe to complete a project within a certain timeframe, usually with defined stages, and with designated resource with following activities:

- Setting objectives (these should be measurable).
- Identifying deliverables.
- Planning the schedule.
- Making supporting plans Road blocks in the project
- Work required for project completion
- Creating project schedules
- Creating supporting plans
- People involved in the project and their key responsibilities.

Bill of material (BOM) - A bill of material is comprehensive inventory of the raw materials, assemblies' subassemblies, parts and components, as well as quantities of each needed to manufacture the product.

A well-defined BOM helps companies:

- Plan purchase of raw materials.
- Estimate material cost.
- Gain inventory control.
- Maintain accurate records.
- Ensure supply robustness and reduce waste.

Q.10 Define basic need of part list creation and also define any four advantages.

Ans. Parts list also known as a bill of materials (BOM). It is a tabular list of the items used to make a project. Parts list is usually combined with the assembly drawing, but it is a separate and individual document and can be and provides a complete list of all parts needed to build the complete project. The PYTHA part list compares the parts and groups in a project to each other and analyses this information in a table. Thereby, elements with the same properties are added. As soon as at least one of its attributes differs from others, the respective part will be listed individually. You can define freely which part properties shall be compared (e.g. the name, article number, the part's dimensions, material etc.). In order to do so, all the attributes, as well as the dimensions, are read out the current project and are therefore always up-to-date with the construction.

Advantages:

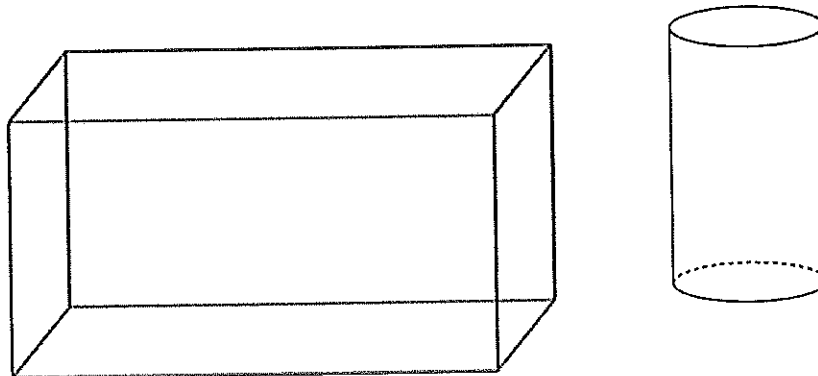
- a. Time saving while drawing reading
- b. Easy material calculation for nesting
- c. Tabular detail of material attributes
- d. Less chance of having mistaken in terms of final cutting

Q.11 Define Part Menu and explain any two standard shapes.

Ans. Parts are three-dimensional objects in PYTHA which can be constructed in various ways. For objects with a predefined shape as block, cylinder, sphere, etc. you only enter the measurements. Objects with a free shape as profiles, rotational sweeps, freeform objects, etc. are derived from two-dimensional cross-sections.

1. Block - The block is of the parts most frequently used. He can be created in any user-defined measurements by any length, depth and height. Its edges run parallel to the coordinate axes. The major point (initial point) is used to define its position in the three dimensional space.

2. Cylinder - The cylinder is the most frequently used rotational symmetric object. Its axis can be parallel to one of the three axes among X, Y, Z or go through two existing points. The degree of segmentation (number of segments and number of partitions) of a cylinder can be freely chosen.





THEORY 1 st - IN-SEM EXAMINATION		
SESSION: 2022-23(SUMMER SEMESTER)		
B.Voc/M.Voc	M.Voc	Semester
Course name / Module	Manufacturing Technology	
Course code	SCS2101	
Date		
Name of the Student		

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 1 mark)

05×1 = 05

Q.1. Why do the felled trees have to be debarked?

Answer B

- A) So that the wood dries faster
- B) To reduce the infestation of wood pests such as beetles and fungi
- C) To save weight for transport
- D) To see the quality of the wood as well as to detect wood defects

Q.2. Why should a felled tree be cut into individual boards or beams as soon as possible?

Answer D

- A) So that there is room in the forest for replanting trees.
- B) Because moist sawdust raises less dust than dry sawdust.
- C) To reduce the weight for later transportation.
- D) So that the wood dries faster and there are fewer shrinkage cracks

Q.3. There are various regulations, rules and quality labels for the global timber trade. Which label guarantees that the forests are used sustainably.

The forests are reforested and illegal trade is prevented?

Answer C

- A) ITTA International Timber Trade Association
- B) I-Label Indian Quality / Agro Marketing India
- C) FSC Forest Stewardship Council
- D) PRFCS Program for the recognition of forest certification systems

Q.4. Plywood panels are made from several layers of veneer. Which statement is correct?

Answer B

- A) The number of veneer layers is even. For example 8 layers
- B) The number of veneer layers is odd. For example 5 layers
- C) Plywood is always made from peeled veneer.
- D) Plywood always has a core of cheap wood. For example pine or balsa

Q.5. Chipboard is made from wood chips. Which statement is correct?

Answer C

- A) All wood chips are the same size to ensure stability.
- B) Due to the lignin in the wood, no glue is needed to make the board.
- C) The outer wood chips are always finer than the middle layer.
- D) Spam boards are only made from spruce wood

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

**Q.6 What are the characteristics/advantages/disadvantages of plywood panels?
Name 4 of them.**

Answer: Decorative surface, warp, become crooked, very stable, high bending stress, edges can be decorative, can tear out when sawing, not dimensionally stable, irregular thickness.

**Q.7 What are the properties/advantages/disadvantages of chipboard?
Name 4 of them.**

Answer: Inexpensive, easy to process, also available with Lamiant coating, dimensionally stable, good staying power, brittle, usually not waterproof, high glue content, not suitable for burning in small ovens, structure and 3-ply or in 5-ply

**Q.8 You have bought a log with different boards. How do they store the boards.
What do they have to pay attention to?**

Answer: Protect wood from sun and rain, good air circulation, spacer strips between the boards. Possibly cover the face side with paint or cover wood. Stable storage, possibly label with wood type and date of purchase.

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9 Can you explain the process of chipboard production to me?

From the delivery of the roundwood to the dispatch of the finished boards.

Answer: Delivery of the logs, keeping the wood moist, removing the bark. Chopping the logs into coarse and finer pieces/chips, drying the chips, sorting the chips into 3 groups fine-medium-coarse, spraying with glue, pouring-distributing the chips on pressing plate fine-medium-coarse-medium-fine, pressing with pressure and heat, cooling the plates, air-conditioning the plates, sanding and cutting the plates, storing for transport.

Q.10 You need to cover a chipboard with laminate.

What do you have to pay attention to? What are the possibilities? How do they proceed?

Answer: Cut chipboard approx. 10 mm longer and 10 mm wider. Cut laminate approx. 20 mm longer and 20 mm wider. Calibrate chipboard. Coat with contact adhesive and press on with pressure roller or press. Glue both sides with white glue or powder adhesive and glue in a hot press.

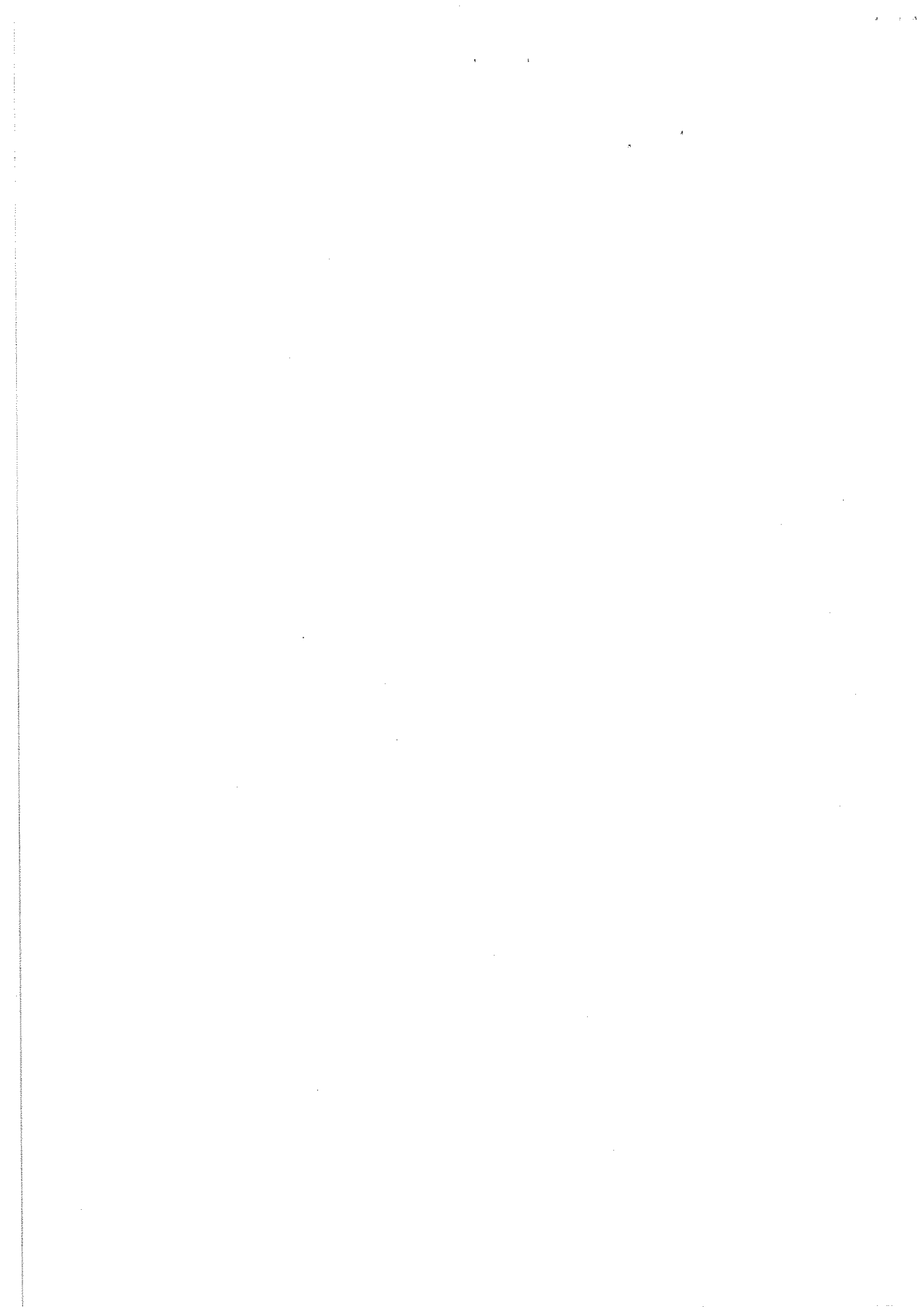
Q.11 A customer wants a solid wooden table from you.

The table is for the living room where there is air conditioning (AC).

The table top is 2400 mm long, 1000 mm wide and 50 mm thick.

What do you look for when buying wood and during production?

Answer: Buy wood and pay attention to the quality. Quantity of wood about 2.2m³. Logs at least 2600 mm long, boards at least 60 mm thick, Wood moisture content about 8% +/- 2%. Cut and trim timber 2450mm. Remove core, if possible standing annual rings, with nice appearance and assemble core/heart split. Glue straight. Allow to dry out with white glue for at least 3 days. Scrape off glue, trim, sand, treat surface.



THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Surface Techniques & Technology		
Course code	SCS2102		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. Complementary colors, are the colors that are opposite each other in the color wheel. Which statement is correct.

Answer A

- A) The complementary color of red is green, of blue is orange, of yellow is violet
- B) The complementary color of blue is green, of yellow is orange, of red is violet
- C) The complementary color are only red, blue, yellow
- D) The complementary color are only black and white

Q.2. There are various color systems around the world. Many manufacturers and the various industries know their own systems. Which of the 4 examples is not an color system?

Answer C

- A) RAL
- B) NCS
- C) ISC
- D) Pantone

Q.3. During surface treatment of wood (oiling or painting), intermediate sanding is performed. What type of grit is normally used for sanding?

Answer D

- A) 60 or 80
- B) 100 or 120
- C) 150 or 180
- D) 220 or 280

Q.4. For painted surfaces there are different designations as this reflect the light. Which is not a correct designation?

Answer B

- A) glossy
- B) rough
- C) matt
- D) satin



Q.5. You need to varnish a solid wood transparent.

Answer A

Unfortunately, the wood has small pressure marks. What can they do.

- A) Steam out the pressure point with hot water.
- B) Wood cement filler
- C) Spot sanding
- D) apply more varnish in these places

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6. In surface treatment, a distinction is made between chemical and physical drying. Give two examples of chemically drying surface products. Give two examples of physically drying surface products.

*Answer: Furniture oil = chemical / 2-component lacquer = chemical / Acid-curing varnish = chemical
2-component water-based varnish = chemical + physical
Water-based varnish = physical / Wax = Physical / Nitro varnish = Physical*

Q.7. What kind of material and finish is best for outdoor furniture.

Answer: Weather resistant wood such as teak, mahogany, oak. Surface treatment best a product which does not have a closed surface. For example, teak oil, glaze, impregnation. Or a special varnish such as boat varnish.

Q.8. Before you apply any surface treatment, you need to sand the wood. The edges should be slightly rounded (minimum radius 1 mm or more). Why is this important?

Answer: If the edge is sharp, the surface treatment will be thinner. It will then rub through more quickly.

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9. Why do we perform surface treatment of wood?

What is the surface treatment useful for?

Answer: Design of the wood by coloring. Highlighting the texture of the wood. Protection from dirt. Protection from weather conditions. Protection from pests. Hygiene. Better washability and cleaning. Longer life of the product. Sales arguments. Increase in value

Q.10. When processing paint with a spray gun, there are a few things to consider.

Please describe what specifically needs to be observed.

Answer: The wood must be dry and free of dust. Dust-free spray room. Possibly spray room with slight over-pressure. Good exhaust air. Wear respirator mask. Observe room temperature and humidity. Spray from front to back. Horizontal surface if possible. Correct viscosity of paint. Correct spray pressure.

Q.11. There are some things to consider when processing furniture oil.

Please describe what specifically needs to be observed.

Answer: The wood must be dry and dust-free so that the oil can be absorbed evenly everywhere. Sand with 180 grit to avoid scratches. Apply enough oil and remove the rest after a few minutes. Polish well. Do not put the brush, roller, rag in the wastepaper basket, but seal them airtight (fire hazard).

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Design Technology		
Course code	SCS2105		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS
<ul style="list-style-type: none"> Maximum Marks: 20 Duration of Examination: 01 Hour Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)	05×1 = 05
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Q.1. In which paper formats are the plans usually printed? *Answer A*
 A) A4, A3, A2, A1 B) B4, B3, B2, B1 C) C4, C3, C2, C1 D) D4, D3, D2, D1

Q.2. For printing plans there are printers or plotters. *Answer B*
What is the advantage of a plotter?
 A) With the plotter you can fold the plan directly.
 B) The format is limited only in width because the paper is usually on a roll.
 C) The plotter is cheaper because you can use all kinds of paper.
 D) A plotter can transfer the plans directly to a wooden board and cut them out.

Q.3. In the detailed drawings, the different materials are identified by short designations and/or hatching. Which statement is correct? *Answer B*
 A) All panel materials are referred to as board only. All woods are referred to as solid wood only.
 B) You can distinguish the different materials by hatching. For example: glass, solid wood, board, metal, laminate and veneer.
 C) The type of hatching is not important. It only identifies what is being cut.
 D) The hatching must also be made in the plans 1:10 and 1:20.

Q.4. Cabinet maker plans are drawn in different scales. What are the usual scales? *Answer C*
 A) Everything always 1:1
 B) is not relevant. The dimension is important.
 C) Usually 1:10 or 1:20. Details 1:1.
 D) Thanks to CNC, scale no longer matters.

Q.5. You need to draw a small built-in wardrobe.

Answer A

How do they proceed. What do they draw first

- A) Floor plan (horizontal section), side section, front view, details.
- B) Front view only
- C) Only the perspective
- D) Only the dimensions are necessary and the details

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6. When sizing plans, there are certain specifications.

In which section is the depth of the tray measured?

Answer: Side cut. It is always measured where the object is cut

Q.7. We know different forms of perspective drawings. Please name 4 of them.

*Answer: Central perspective, bird's eye perspective, frog's eye perspective, two-point perspective.
Central point perspective, cavalier perspective, isometry, parallel projection.*

Q.8. What information belongs in a title block. Name 4 pieces of information

*Answer: title of the drawing, creator of the drawing, date and revision of the drawing
scale, customer, address of the company, address of the customer, architect, plan number.*

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9. Where does our sense of good design come from. How are we influenced?

*Answer: Influences from our culture. Social and religious influences. Climate and topography.
The use of objects. Social media and advertising. Money and prestige.*

Q.10. Function - Proportion – Construction or Form follows function

Why is this important. Make an example

Answer: You must be clear about the purpose. From this comes the shape. The design should be related to the purpose. Then, when the right construction is applied, you have a perfect product.

Q.11. In the past, the plans had to be drawn by hand.

In a modern joinery, we draw with CAD. What are the advantages of CAD?

Answer: Create libraries, copy, stretch, paste, simple corrections, infinite plan format, scaling, insertion of other information such as images or fittings, saving, sending plans, transfer to CNC, dimensioning.

THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Properties of Timber		
Course code	SCS2104		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. What is the basic building material of wood.

Answer B

- A) Fructose B) Glucose C) Cane sugar D) Lactose

Q.2. What are the cell walls of wood made of?

Answer C

- A) Lignin B) Viscose C) Cellulose D) Core materials

Q.3. When trees are felled in the forest, they still have a high moisture content.

How high can the moisture content of freshly felled wood be?

Answer C

- A) Water content and wood weight are 1:1
For example of teak density 650KG/m³ = 650 litres of water in the wood.
- B) Water content is mostly between 8% and 14%
- C) The water content varies depending on the type of wood.
For example, beech 110%, spruce 150%, balsa 600%.
- D) The water content is a maximum of 100% of the wood weight

Q.4. The tree must be supplied with water and minerals from the root to the leaf.

In which part of the trunk does the transport take place?

Answer C

- A) In the heartwood B) In the bark C) In the sapwood D) In the cambium

Q.5. We often speak of softwood or hardwood. Which statement is correct?

Answer B

- A) Tropical wood is always hardwood
- B) Hardwoods and conifers both exist as deciduous and coniferous trees.
Both in the tropics and in the temperate zones
- C) All conifers are softwoods
- D) All deciduous trees are hardwoods

2. Section B (03 short answer type questions, each question carries 02 marks)**03×02 = 06****Q.6 List 4 different wood defects**

Answer: Woodiness, crookedness, forked growth, twisted growth, alternate twisted growth, eccentric growth, irregular annual rings, resin, ring peeling, buckling cracks, foreign bodies, etc.

Q.7 List 4 different wood pests (insects, fungi, etc.)

Answer: house longhorn beetle, common nail beetle, sapwood beetle, blue stain fungus, mould, brown rot, white rot, black rot, dry rot, red rot,

Q.8 Structure of the log.

Name the individual layers of the wood from the outside to the inside.

Answer: Heartwood, sapwood, cambium, bast, bark

3. Section C (03 long type questions, each question carries 03 marks)**03×03 = 09****Q.9 Describe photosynthesis/assimilation**

Answer: With the help of the green leaf pigment chlorophyll and solar energy, plants can produce new substances from carbon dioxide and water. The products are hydrocarbons, sugar, starch and oxygen.

Q.10 What does the fibre saturation point mean for solid wood?

What happens to the wood below the fibre saturation point?

Make a few examples and name the different shrinkage masses?

Answer: When the wood dries, the cell contents are the first to lose water. The fibre saturation point is the area from which the water escapes from the cell walls.

Below the fiber saturation point, the cells contract and the wood shrinks.

Give some examples and name the different measures of shrinkage?

Longitudinal 0.1%-0.4% / Radial 3%-5% / Tangential 6%-10%

Q.11 You have received an order from a customer to make a patio grid for the garden.

The area is 4500mm x 6000mm. The wood is pine.

What do you have to take care of?

What precautions do you take?

Answer: The water must be able to seep away. Possibly gravel underlay to prevent termites, ants or wood wasps from settling.

Protect the substructure from moisture (underlayment).

Use short wooden battens because of warping and cracks. For example, length only 1500mm x3 = 4500mm.



THEORY 1 st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	M.Voc	Semester	
Course name / Module	Interior Designing		
Course code	SCS2107		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

- Maximum Marks: **20**
- Duration of Examination: **01 Hour**
- Attempt all questions.

1. Section A (05 objective type questions, each question carries 01 mark)

05×1 = 05

Q.1. Proportions of chairs. What masses are correct

Answer B

- A) The seat height should always be 440 mm.
- B) The backrest must form an angle of 90 degrees to the seat.
- C) The seat height is usually between 420mm and 460mm.
Important is the distance to the table of about 300mm.
- D) The seat height is always based on the people. Small people must have higher chairs.

Q.2. Proportions of closets. Which dimensions are correct?

Answer C

- A) The clothes rail must be at least 1800 mm from the floor.
- B) The clothes rail should always be 1000mm from the floor.
- C) Normally a clothes rail is between 1400mm and 1600mm from the floor or as needed
(e.g. in kindergartens or nursing homes).
- D) It is best if the customer can assemble the clothes rail by himself.

Q.3. Proportions of kitchens. Which dimensions are correct?

Answer B

- A) The working height depends on the sink.
- B) Normally, the kitchen cover is 880mm to 940mm from the floor.
- C) The DIN standard is decisive.
- D) The working height depends on the window height. If a window is 750 mm high,
the cover is also made in this height.

Q.4. How deep is a kitchen cabinet above cover

Answer A

- A) 320mm-360mm
- B) max. 320mm
- C) depending on plate
- D) 360mm or more



Q.5. What is the width of kitchen appliances for installation?

Answer A

- A) Standard 600 mm. However, there are also special appliances with a specific width.
- B) In India, the widths are in inches. Standard 25 inches
- C) Depending on the continent. Europe 550mm, Asia 600mm, North America 800mm.
- D) The width of the device depends on the size of the family.

2. Section B (03 short answer type questions, each question carries 02 marks)

03×02 = 06

Q.6. What materials are suitable for a kitchen countertop? Name two of them

Answer: Granite, gneiss, artificial stone, synthetic resin (laminare), tempered glass, solid wood

Q.7. Kitchen appliances. Tell me 4 brands of well-known built-in appliance manufacturers.

Answer: Whirlpool, Elektrolux, Miele, V-Zug, Siemens, Bosch, Forster, Fors, Zanussi, AEG, Godrej, Philips, Hawkins, Prestige, various domestic brands?

Q.8. What materials are suitable for the kitchen furniture inside and why?

Answer: Chipboard with coating. Easy to clean and inexpensive. Easy to work with. Attention because of moisture.

3. Section C (03 long type questions, each question carries 03 marks)

03×03 = 09

Q.9. You have an order to plan a kitchen. what do you pay attention to?

Answer: Room size, windows and doors, connections for water and electricity, lighting, family size, left or right handed, size of pantries because of shopping facilities, suitable appliances, financial possibilities, finishes, cleaning.

Q.10. What do you need to pay attention to when planning kitchen appliances?

Answer: Size, technical specifications, storm connections, water connections, dimensions, installation instructions, options for replacement, price, service, quality, accessories, combination with other devices.

Q.11. You can make a dream kitchen for yourself. What are their considerations?

Answer: Do I like to be a host, do I like to cook and what do I like to cook, do I stay longer in this apartment, do I like to cook alone or can the others watch me, financial means, what materials and colors are suitable and do I like. Maintenance care and cleaning of the kitchen

