THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	**Semester**	1st	
Course name / Module	Hand skill & Transfer of Measurement		
Course code	SCS1101		
Date			
Name of the Student		**Reg. No.**	

INSTRUCTIONS

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

1. Section A — 05×1 = 05

Q. 1 Which one of the following is a planning tool?
(A) Try square (B) Screw driver
(C) Japanese pull saw (D) None of them

Q. 2 Which one of the following saw is used to make corner bridle joint?
(A) Indian saw (B) Japanese saw
(C) A & b both (D) None of them

Q. 3 Which one of the following is a marking tool?
(A) Chisel (B) Foulding ruller
(C) Manual hand planer (D) None of them

Q. 4 Which one of the following is not the application of try square?
(A) Used to make straight line (B) Used to make curved lines
(C) Used to check surface flatness (D) All of them

Q. 5 Which one of the following is a measuring tool?
(A) Steel Ruler (B) Roll Meter
(C) Double Meter (D) All of them

2. Section B — 03×02 = 06

Q. 6 Write down the five name of handskill tools?

Q. 7 Write down the use of jack planner?

Q. 8 What is the use of triangle sign in woodworking? Discuss it with example and diagram.

3. Section C — 03×03 = 09

Q. 9 Write down the difference between Tenon mortise & Bridle joint?

Q. 10 Write down the short knot on lap joint with diagram?

Q. 11 Write down the use of marking symbols in woodworking?

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THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	**Semester**	1st	
Course name / Module	Hand skill & Transfer of Measurement		
Course code	SCS1101		
Date			
Name of the Student		**Reg. No.**	

INSTRUCTIONS

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

1. Section A — 05×1 = 05

Q. 1 Which one of the following is a planning tool?
(A) Try square (B) Screw driver
(C) Japanese pull saw (D) None of them Ans. D

Q. 2 Which one of the following saw is used to make corner bridle joint?
(A) Indian saw (B) Japanese saw
(C) A & b both (D) None of them Ans. A

Q. 3 Which one of the following is a marking tool?
(A) Chisel (B) Foulding ruller
(C) Manual hand planer (D) None of them Ans. D

Q. 4 Which one of the following is not the application of try square?
(A) Used to make straight line (B) Used to make curved lines
(C) Used to check surface flatness (D) All of them Ans. D

Q. 5 Which one of the following is a measuring tool?
(A) Steel Ruler (B) Roll Meter
(C) Double Meter (D) All of them Ans. D

2. Section B — 03×02 = 06

Q. 6 Write down the five name of handskill tools?

Ans. Chisel, Hammer, Try Square, Marking Gauge, Jack Planner

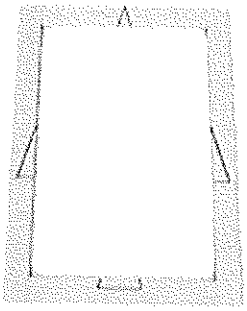
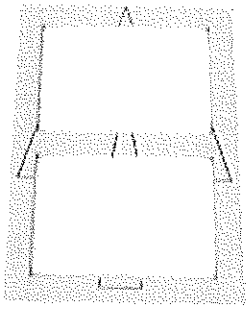
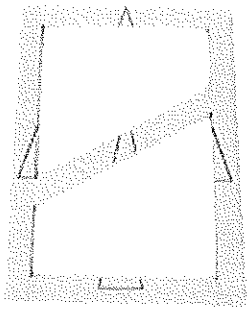
Q. 7 Write down the use of jack planner?

Ans. jack planer is a general-purpose woodworking bench plane, used for dressing timber down to the correct size. it is used for planning the material manually. It is generally used for smooth planning.

Q. 8 What is the use of triangle sign in woodworking? Discuss it with example and diagram.

Ans. We use symbols to combine work piece together. The symbol that is used to combine is called triangle sign. Sometimes we use the left part instead of the right part and the top part instead of the bottom because

there are several identical pieces of the same size, so we need to number them accordingly and this can be done by making triangle sign.

3. Section C	03×03 = 09

Q. 9 Write down the difference between Tenon mortise & Bridle joint?

Ans. **Tenon mortise-**

- A mortise and Tenon joint is a type of joint that connects two pieces of wood at an angle of 90
- Mortise and Tenon are two components: the mortise hole and the Tenon tongue.
- The Tenon is cut to fit the mortise hole exactly and usually has shoulders that seat when the joint fully enters the mortise hole. The joint may be glued, pinned, or wedged to lock it in place.
- Advantage – Very good strength for heavy doors and gates
  - It is both simple and strong
- Disadvantage – Complex production while mortise hole

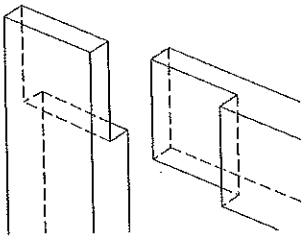
Bridle joint-

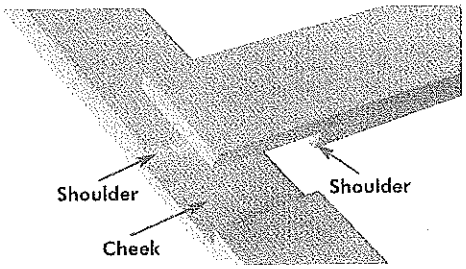
- A bridle joint is a woodworking joint, similar to a mortise and Tenon, in that a Tenon is cut on the end of one member and a mortise is cut into the other to accept it.
- The difference feature is that the Tenon and the mortise are cut to the full width of the Tenon member.
- The corner bridle joint joins two members at their respective ends, forming a corner.
- The bridle joint is very popular in workbench construction.
- This joint is very decorative and very stable for window frames
- Advantage – Very good strength in compression
  - Simpler alternative to the mortise and Tenon joint cause of no need mortise machine in narrow frame.
- Disadvantage – Outer visibility of joints
- If any gap remains in construction, then mechanical fastener or pin is often required

Q. 10 Write down the short knot on lap joint with diagram?

Ans. A lap joint or overlap joint is a joint in which the members overlap.

- Lap joints can be used to join wood, plastic, or metal. A lap joint may be a full lap or half lap.
- In a half lap joint or halving joint, material is removed from both of the members so that the resulting joint is the thickness of the thickest member.
- Advantage – Simple production
- Disadvantage – Low strength joint





Q. 11 Write down the use of marking symbols in woodworking?

1. Ans. **X - Cross -** The scope of this symbol is throughout cut and continuous separation cut.
   Example - Cutting off cuts.

2. **Wave Line** - The scope of this symbol is material cutting area.
   Example – Overlapping material removal.

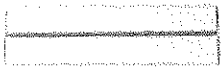
3. **Arrow** - The scope of this symbol is limitation of machining operations.
   Example - groove, Rebate.

4. **Cross** - The scope of this symbol is Mortice hole.
   Example - Hole for Tenon and mortise joint.

5. **Number** - The scope of this symbol is Indication of the depth of a mortice hole.
   Example - Indication of drilling depth, Indication of groove depth.

6. **Hatching** - The scope of this symbol is Material that is partially removed not throughout.
   Example - Hatching

7. **Line** - The scope of this symbol is Housing mortice.



8. **Bore / round hole -** The scope of this symbol is specification of the diameter of tool including

THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	**Semester**	1st	
Course name / Module	Power Tools		
Course code	SCS1102		
Date			
Name of the Student		**Reg. No.**	

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

1. Section A	05×1 = 05

05X01 = 05 Marks

Q.1. In the given option which accessories used for straight cutting in hand circular saw.
(A) Guide Rail (B) Riving Knife
(C) Side Stops (D) None of these.

Q.2. Which one of the following is the angular range of hand circular saw?
(A) 1 to 45 (B) -1 to 47
(C) A&B Both (D)None of them

Q.3. What is the maximum depth of domino machine?
(A) 12 mm (B) 8 mm
(C) 15 mm (D) 28mm

Q.4. Which one of the following machine is used for biscuit Joint?
(A) Circular Saw (B) Jig Saw
(C) Router (D) Lamello Classic X

Q.5. Which one of the following machine is used for making Chamfer?
(A) Circular Saw (B) Jig saw
(C) Edge Router (D) None of these

2. Section B	03×02 = 06

Q.6. What are the steps for miter cut using hand circular saw?
Q.7. What are the function of Riving knife?
Q.8. Write down the procedure to change the Router Bit.

3. Section C	03×03 = 09

Q.9. What are the steps for Making the groove of 20mm deep on 35 mm thick MDF Piece by hand router?
Q.10. Explain the procedure to change the blade of circular saw.
Q.11. Explain the pendulum adjustment mechanism of Jig saw.

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THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc	**Semester**	1st	
Course name / Module	Power Tools		
Course code	SCS1102		
Date			
Name of the Student		**Reg. No.**	

INSTRUCTIONS

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

1. Section A — 05×1 = 05

05X01 = 05 Marks

Q.1. In the given option which accessories used for straight cutting in hand circular saw.
(A) Guide Rail (B) Riving Knife
(C) Side Stops (D) None of these. Ans. A

Q.2. Which one of the following is the angular range of hand circular saw?
(A) 1 to 45 (B) -1 to 47
(C) A&B Both (D)None of them Ans. B

Q.3. What is the maximum depth of domino machine?
(A) 12 mm (B) 8 mm
(C) 15 mm (D) 28mm Ans. D

Q.4. Which one of the following machine is used for biscuit Joint?
(A) Circular Saw (B) Jig Saw
(C) Router (D) Lamello Classic X Ans. D

Q.5. Which one of the following machine is used for making Chamfer?
(A) Circular Saw (B) Jig saw
(C) Edge Router (D) None of these Ans. C

2. Section B — 03×02 = 06

Q.6. What are the steps for miter cut using hand circular saw?

Ans. Steps for miter cut using hand circular saw are as follows

1. Align the guide rail on marked line.
2. Set the required angle on hand circular saw by loosening the knob.
3. Set 5 to 7 mm more depth of cut then the thickness of work piece.
4. Clamp the guide rail and work piece by screw clamp.
5. Connect the machine to the dust collection system and make the miter cut.

Q.7. What are the function of Riving knife?

Ans. Function of riving knife are as follows:

1. It Prevents the kick back while Cutting.
2. It keeps the kerf open in separating cut.

Q.8. Write down the procedure to change the Router Bit.

Ans. Procedure to change the router bit

1. Take out the spanner.
2. Lock the spindle by spindle locking button.
3. Unscrew the spindle nut with the help of spanner.
4. Remove the collet from spindle nut and then Router bit.
5. Change it with appropriate shank size that can be accommodate in collet.

3. Section C	**03×03 = 09**

Q.9. What are the steps for Making the groove of 20mm deep on 35 mm thick MDF Piece by hand router?

Ans. Steps for Making the groove of 20 mm deep.

1. Mark the required dimension on work piece
2. Set the depth of cut 4mm in router.
3. Set the guide rod and adapter on router.
4. Set the guide rail on work piece.
5. Plug in the electric chord and dust collection chord on router.
6. Now cut it with 4 mm depth of cut in one pass and repeat it 5 times till 20mm depth is reached.

Q.10. 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.

Q.11. Explain the pendulum adjustment mechanism of Jig saw.

Ans. **Pendulum adjustment**

There are three levels for adjusting the pendulum

1. In gear one the number of stroke is less it is best suited for fine cut and for cutting hard material.
2. In gear two no of stroke is greater it cut fast but we have to compromise in surface finish.
3. In gear three no. of stroke is quite more blade cut more aggressively with poor surface finish.

THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B.Voc/M.Voc	**B.Voc**	**Semester**	**1st**
Course name / Module	Carpenter Materials		
Course code	SCS1105		
Date			
Name of the Student		**Reg. No.**	

INSTRUCTIONS

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

1. Section A	**05×1 = 05**

Q.1 What does MDF stand for?

(a) Medium Density Fibreboard

(b) Middle density fibreboard

(c) Maximum density fibreboard

(d) Manufactured density fibreboard

Q.2 The permanent mode of deformation of a material known as _____

(a) Elasticity

(b) Plasticity

(c) Slip deformation

(d) Twinning deformation

Q.3 Which of these is not a manufactured board?

(a) MDF

(b) plywood

(c) pine

(d) blockboard

Q.4 Which one of the following is not a type of wood panels?

(a) Particle oard

(b) Ply board

(c) MDF

(d) Solid wood board

Q.5 Resistance of a material against any external force is termed as ----------

(a) Stiffness

(b) Malleability

(c) Strength

(d) Hardness

2. Section B	**03×02 = 06**

Q.6 What is chipboard wood?

Q.7 What are the five mechanical properties of wood? Explain any one of them.

Q.8 What effects does moisture have on wood?

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3. Section C	03×03 = 09

Q. 9 Diferrence between Solid wood panels and Ply wood panels?

Q.10 What is difference between softwood and hardwood?

Q.11 What is seasoning of wood? Explain different types of seasoning.

THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B. Voc	Semester	1st	
Course name / Module	Hand Drawing		
Course code	SCS1106		
Date			
Name of the Student		Reg. No.	

INSTRUCTIONS

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

1. Section A — 05×1 = 05

Q1. What is the significance of alternate long and short Dash line in technical drawing?

(a) Outlines of the object (b) Hidden surface

(c) A&B both (d) line of symmetry

Q2. Which one will be the size for A4 Sheet in millimeter?

(a) 420x297 (b) 29.7x21.0

(c) 297x210 (d) 594x841

Q3. In the given option which pencil will be the Softer?

(a) H (b) 4H

(c) 2B (d) B

Q4. The Representative factor for enlarging scale is

(a) Equal to 1 (b) Always greater than 1

(c) A&B both (d) None of them

Q5. 200 millimeters are equivalent to

(a) 20 Centimeter (b) 20 meter

(c) 0.2 meter (d) None of them

2. Section B — 03×02 = 06

Q6. An object of length 2 feet is drawn on a size of 20mm. Calculate the RF for drawn object.

Q7. Write any four differences between Artistic drawing & Engineering drawing.

Q8. Discuss the dimension of various drawing sheets used in Engineering Drawing.

3. Section C — 03×03 = 09

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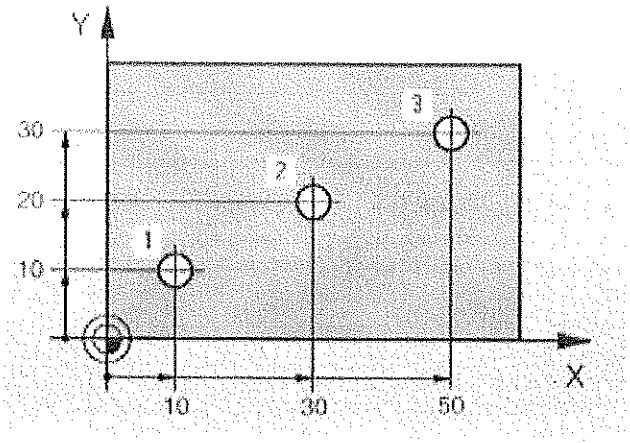
Q.9 Explain six types of lines with sketch and also describe their applications.

Q.10 Define various scales in engineering drawing and discuss Representative Fraction used for scale with suitable example.

Q.11 Draw the layout of drawing sheet with title Block. Find out the coordinates of point 1,2,3 by Absolute Coordinate System.



THEORY 1st - IN-SEM EXAMINATION			
SESSION: 2022-23(SUMMER SEMESTER)			
B. Voc	**Semester**	**1st**	
Course name / Module	**Hand Drawing**		
Course code	**SCS1106**		
Date			
Name of the Student		**Reg. No.**	

INSTRUCTIONS

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

1. Section A	**05×1 = 05**

Q1. What is the significance of alternate long and short Dash line in technical drawing?

(a) Outlines of the object (b) Hidden surface

(c) A&B both (d) line of symmetry (d)

Q2. Which one will be the size for A4 Sheet in millimeter?

(a) 420x297 (b) 29.7x21.0

(c) 297x210 (d) 594x841 (c)

Q3. In the given option which pencil will be the Softer?

(a) H (b) 4H

(c) 2B (d) B (d)

Q4. The Representative factor for enlarging scale is

(a) Equal to 1 (b) Always greater than 1

(c) A&B both (d) None of them (b)

Q5. 200 millimeters are equivalent to

(a) 20 Centimeter (b) 20 meter

(c) 0.2 meter (d) None of them (c)

2. Section B	**03×02 = 06**

Q6. An object of length 2 feet is drawn on a size of 20mm. calculate the RF for drawnn object.

Ans. Representative Factor (RF) =

(Drawing length of an object)/(Actual length of an objecth)

Actual length of an object = 2 feet = 2x12x25.4 mm

Drawing length = 20mm

Rf = 20/(2x12x25.4 mm)

Rf = 0.0328

Q7. Write any four differences between Artistic drawing & Engineering drawing.

Ans.

S. No.	Engineering Drawing	Artistic Drawing
1.	These drawings reflect technical information about that object to manufacture.	These drawings reflect feelings, emotions, imagination or scene.
2.	The page is signed to become responsible of the designed objects.	The page is signed to become responsible of the artistic value from the picture.
3.	These drawing have only one interpretation (Means).	These drawing have many interpretation.
4.	Drawings have accurate measurement.	Drawings have no measurement

Q8. Discuss the dimension of various drawing sheets used in Engineering Drawing.

Ans.

S. No.	Size Designation	Trimmed Sheet Sizes (in mm)	
		Width	Length
1.	A0	841	1189
2.	A1	594	841
3.	A2	420	594
4.	A3	297	420
5.	A4	210	297
6.	A5	148	210

3. Section C — 03×03 = 09

Q.9 Explain six types of lines with sketch and also describe their applications.

Ans.

CONVENTIONS FOR VARIOUS LINES [ACCORDING TO B.I.S. S.P : 46 - 1988]

LINE	DESCRIPTION	GENERAL APPLICATION
A ———	CONTINUOUS THICK	A1 VISIBLE OUTLINE A2 VISIBLE EDGES
B ———	CONTINUOUS THIN STRAIGHT OR CURVED	B1 IMAGINARY LINES OF INTERSECTION B2 DIMENSION LINES B3 PROJECTION LINES B4 LEADER LINES B5 HATCHING B6 OUTLINES OF REVOLVED SECTIONS IN PLACE B7 SHORT CENTRE LINE

C	CONTINUOUS THIN FREEHAND	C1 LIMITS OF PARTIAL OR INTERRUPTED VIEWS AND SECTIONS, IF THE LIMIT IS NOT A CHAIN THIN
D	CONTINUOUS THIN (STRAIGHT WITH ZIGZAGS	D1 LINE
E	DASHED THICK	E1 HIDDEN OUTLINES E2 HIDDEN EDGES
F	DASHED THIN	F1 HIDDEN OUTLINES F1 HIDDEN EDGES
G	CHAIN THIN	G1 CENTRE LINES G2 LINES OF SYMMETRY G3 TRAJECTORIES

Q.10 Define various scales in engineering drawing and discuss Representative Fraction used for scale with suitable example.

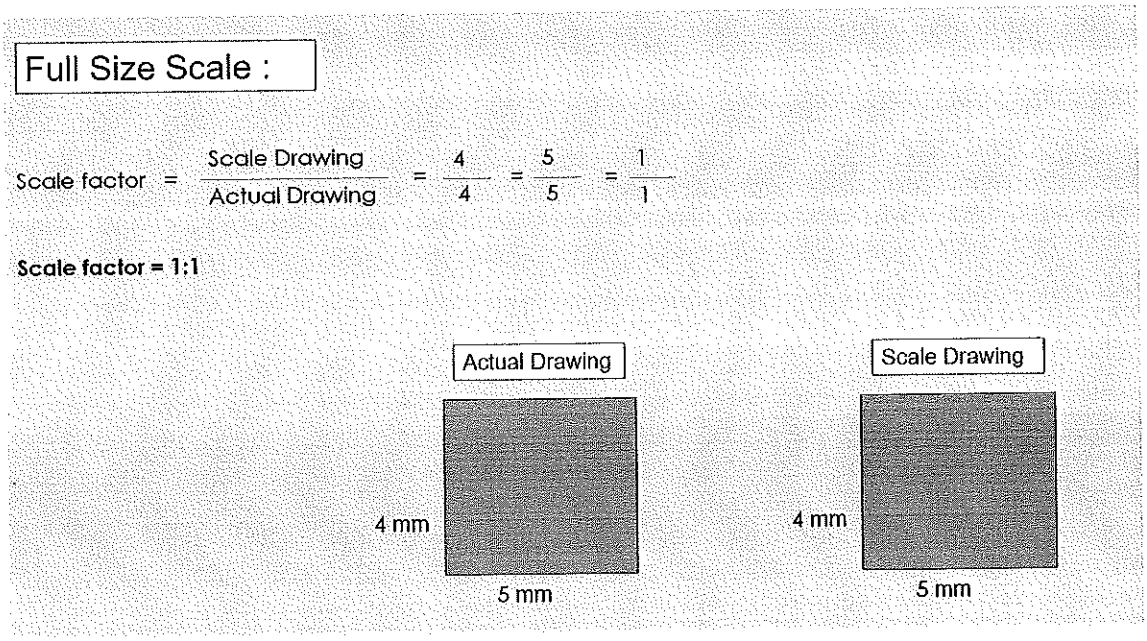
Ans. The proportion by which we either reduce or increase the actual size of the object on a drawing is known as drawing to scale or simply scale.

Representative Fraction - The ratio of the distance on the drawing sheet of an object to the corresponding actual distance of the object is known as scale factor. A scale factor represents the ratio of two corresponding lengths in similar geometric shapes.

Scale Factor = Distance of the object on drawing sheet (Drawing Size) / Corresponding actual distance of the object (Actual size)

Types of scale -

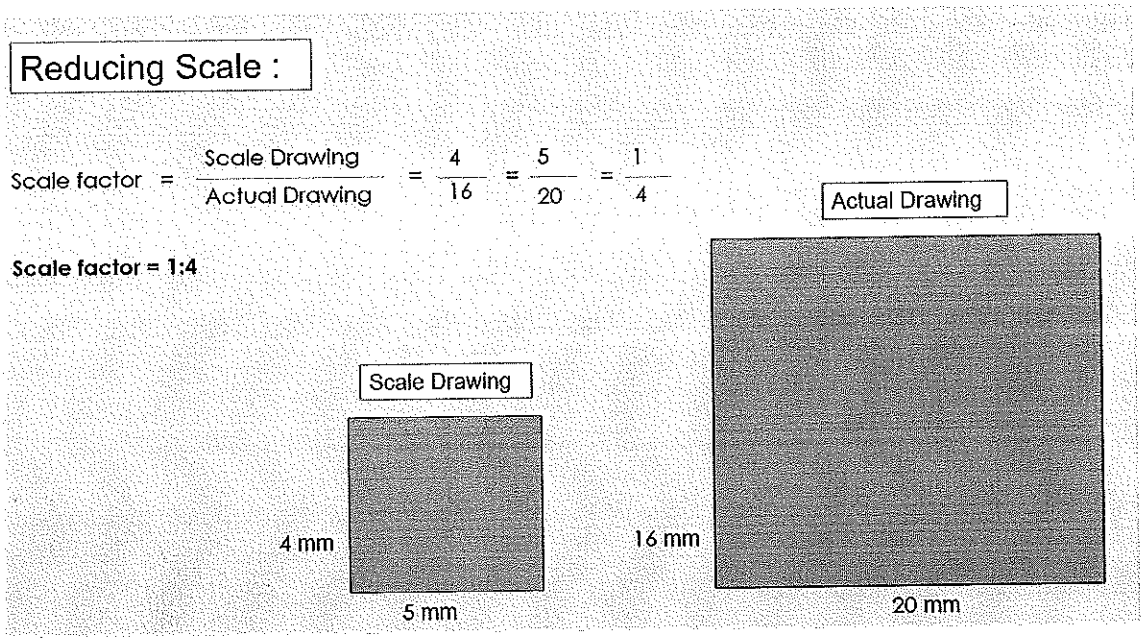
1. **Full size scale -** In this, actual measurement of the object drawn to same size on the drawing.
   It is written as -
   1 :1 - Drawing made to actual size



2. **Reducing scale** – In this, actual measurement of the object reduced to some proportion on drawing.

   It is written as –

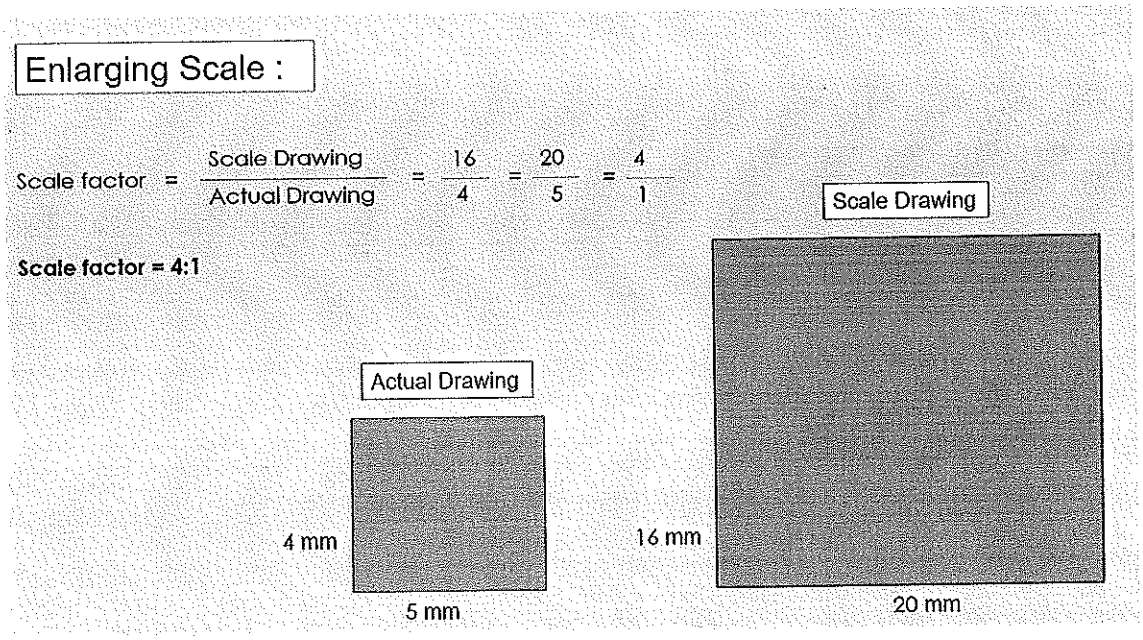
1:2 - Drawing made to one half of actual size
1:5 - Drawing made to one fifth of actual size
1:10 - Drawing made to one tenth of actual size
1:50 - Drawing made to one fiftieth of actual size



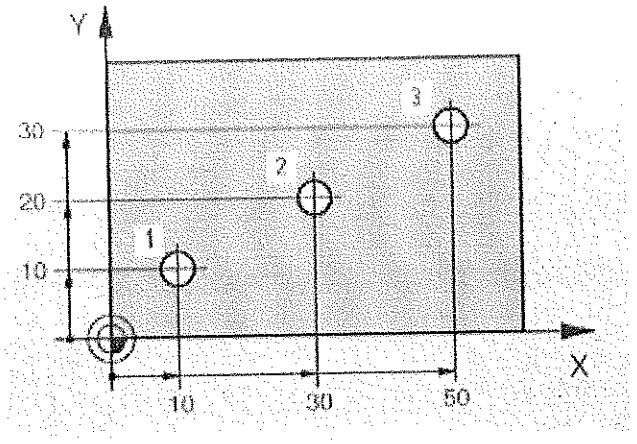
3. **Enlarging scale** – In this, actual measurement of the object increased to some proportion on drawing.

It is written as –

2:1 - Drawing made to twice of actual size
5:1 - Drawing made to five times of actual size
10:1 - Drawing made to ten times of actual size



Q.11 Draw the layout of drawing sheet with title Block. Find out the coordinates of point 1,2,3 by absolute Coordinate system.



Ans.

Absolute system

Hole 1

X = 10 mm ; Y = 10 mm

Hole 2

X = 30 mm ; Y = 20 mm

Hole 3

X = 50 mm ; Y = 30 mm