

R.N.G.PATEL INSTITUTE OF TECHNOLOGY-RNGPIT
(An Autonomous Institute U/s UGC Act 1956)

B.Voc. SEMESTER-I, SEMESTER END EXAMINATION – WINTER 2025

SUBJECT CODE: 1PT103

DATE: 19-12-2025

SUBJECT NAME: ENGINEERING DRAWING

TIME: 11:00 AM to 01:00 PM

TOTAL MARKS: 50

Instructions

1. It is **compulsory** for students to write **Enrolment No. /Seat No.** on the question paper.
2. Attempt all questions in the question paper.
3. The figures to the right of each question indicate full marks. Make suitable assumptions with proper justification wherever required.
4. Simple, non-programmable scientific calculators are permitted.
5. BL - Cognitive Level (As per Revised Bloom's Taxonomy) (R-Remember, U-Understanding, A –Application, N –Analyze, E – Evaluate, C -Create), CO - Course Outcomes.

		Marks	BL	CO
Q.1	(a) Enlist different types of Drawing Instruments with its uses.	05	R	1
	(b) Draw a 60 mm Hexagon by using the universal circle method.	05	U	1
Q.2	(a) Construct a diagonal scale of representative fraction = 1/36 showing yard, foot and inch. Scale should be long enough to measure 5 Yard. Measure 3 Yard 2 Foot 9 Inch.	05	A	1
	(b) How to divide 90 mm line to 7 equal parts?	05	U	2
OR				
Q.2	(a) On a map of Gujarat 1 cm represents 5 kms, construct a plain scale long enough to measure a distance between Ahmedabad and Baroda. Indicate on it a distance between Ahmedabad and Anand. Distance: (1) Ahmedabad – Baroda - 100 Kms (2) Ahmedabad – Anand – 65 Kms	05	A	1
	(b) Define: 1. Cone 2. Ellipse 3. Hyperbola 4. Prism 5. Pyramid	05	R	2
Q.3	(a) What is the difference between the first and third angle?	05	U	3
	(b) Fig. 1 shows pictorial view of an object. Draw following views: (1) Front view looking in the direction X, (2) side view looking direction Y, (3) Top view. Use First Angle Projection method.	05	U	3
OR				
Q.3	(a) Fig. 2 shows pictorial view of an object. Draw following views: (1) Front view looking in the direction X, (2) Top view. Use First Angle Projection method.	05	U	3

(b) Fig. 3 shows pictorial view of an object. Draw following views: (1) Front view looking in the direction X, (2) Top view. Use First Angle Projection method. **05 U 3**

Q.4 (a) Construct an Isometric scale of 100 mm long line. **05 U 4**

(b) Fig. 4 shows FV and LHSV of an object. Draw Isometric view. Consider total Length in FV as 80 **05 U 4**

OR

Q.4 (a) Fig. 5 shows FV and LHSV of an object. Draw Isometric view. **05 U 4**

(b) Draw an isometric circle of 60 mm diameter with the help of four center method. **05 U 4**

Q.5 (a) Write the difference between rivet and bolt joints. **05 U 5**

(b) Explain various types of rivet heads. **05 U 5**

OR

Q.5 (a) Draw and explain the symbol of a rivet joint. **05 U 5**

(b) What is a piping joint? Write its purpose. **05 U 5**

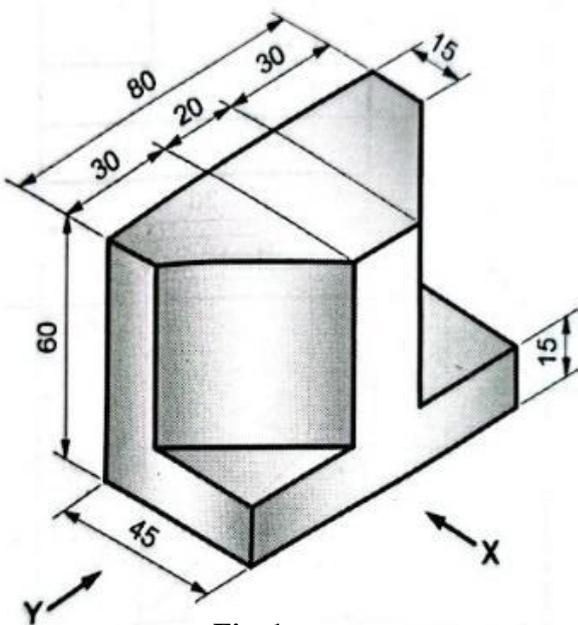


Fig. 1

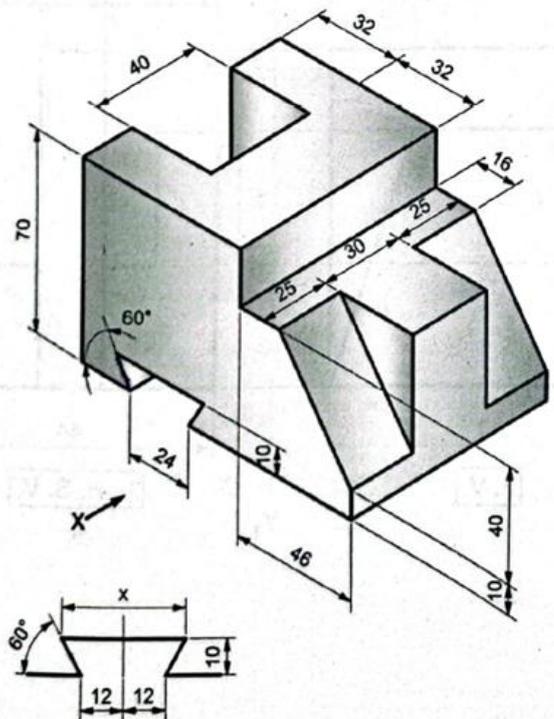


Fig. 2

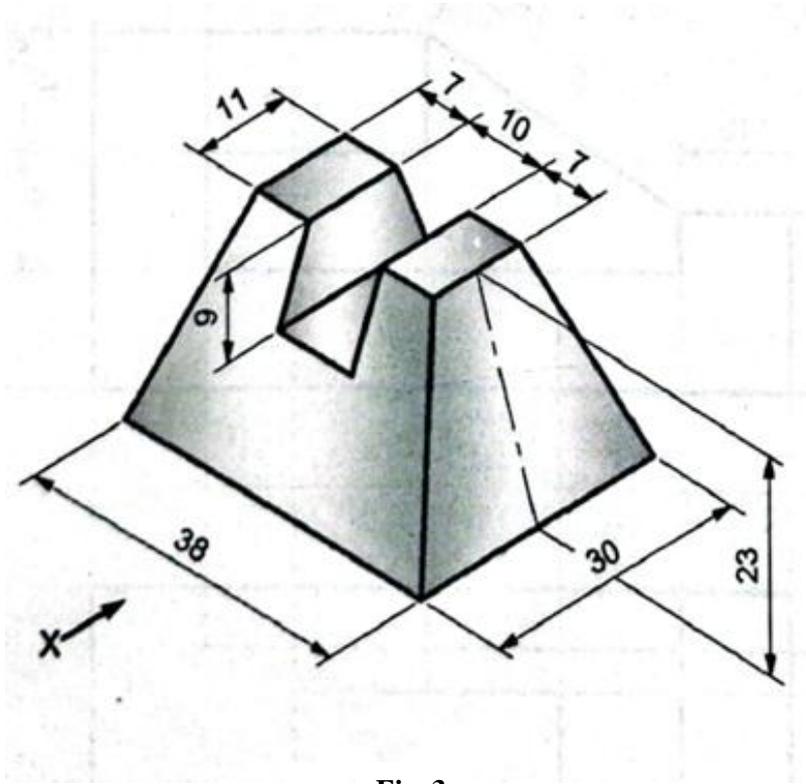


Fig. 3

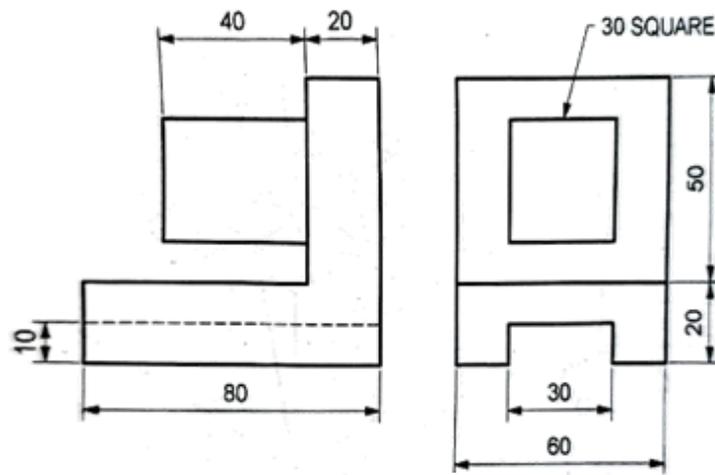


Fig. 4

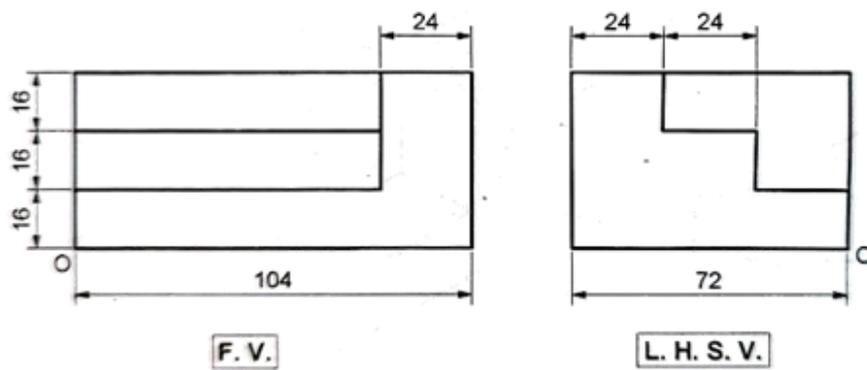


Fig. 5