C **601B2** **Total pages: 2**

Register No: …… Name: .....

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

FIRST SEMESTER B.TECH DEGREE EXAMINATION(R), NOVEMBER 2024

Common to Chemical Engineering & Electrical and Electronics Engineering

(2024 SCHEME)

Course Code : 24EST1004-B

Course Name : Engineering Drawing and Elementary CAD

Max. Marks : 60 **Duration:2.5 Hours**

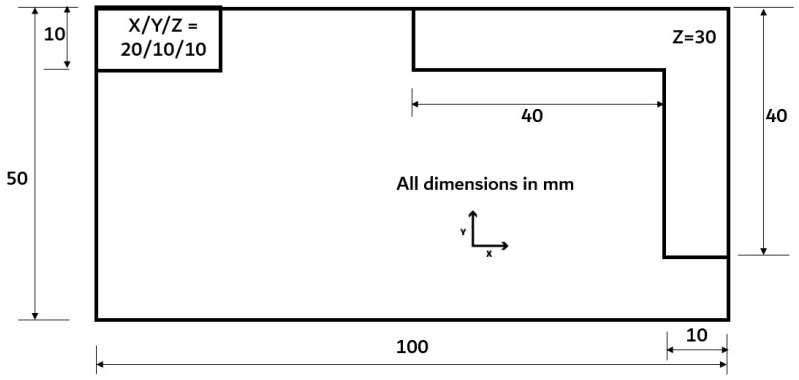
(Answer any ONE question from each module, each question carries 12 marks)

MODULE 1

1. Draw the projections of a straight line AB, 80 mm long and inclined at 35 degrees to HP. If the elevation (F.V) measures 55 mm, find the inclination with VP. The endpoint A is 20 mm away from both reference planes. Also, determine the apparent inclinations and mark the traces. Assume point A is in first quadrant. 12

OR

2. Draw the planometric view of the figure given below. If required, an appropriate drawing scale can be chosen to fit the drawing space. 12



MODULE 2

3. Draw the projections of a pentagonal pyramid (base side 25 mm and height 80 mm), resting on one of its base edges on HP. The axis of the solid is inclined at 45 degrees to HP. Assume the solid at any distance in front of VP. 12

OR

4. Draw the projections of a cone (base radius 25 mm, height 70 mm), resting on a point of its base on VP and the axis is inclined at 30 degrees to VP. Assume the solid at any distance above HP. 12

MODULE 3

5. A square prism (base 40 mm, height 80 mm) is resting with its base on HP, all the base edges equally inclined to VP. It is cut by a section plane parallel to VP and inclined at 30 degrees to HP, and passing through the mid-point of the axis. Develop the lateral surfaces of the cut solid (truncated solid). 12

OR

6. Draw the projections of a square pyramid (base 30 mm, height 80 mm), resting with its base on HP, all the base edges equally inclined to VP. It is cut by a section plane inclined 30 degrees to HP and 12

passing through the mid-point of the axis. Also, draw the apparent shape and true shape of the cut surface. Assume the solid at any distance in front of VP.

MODULE 4

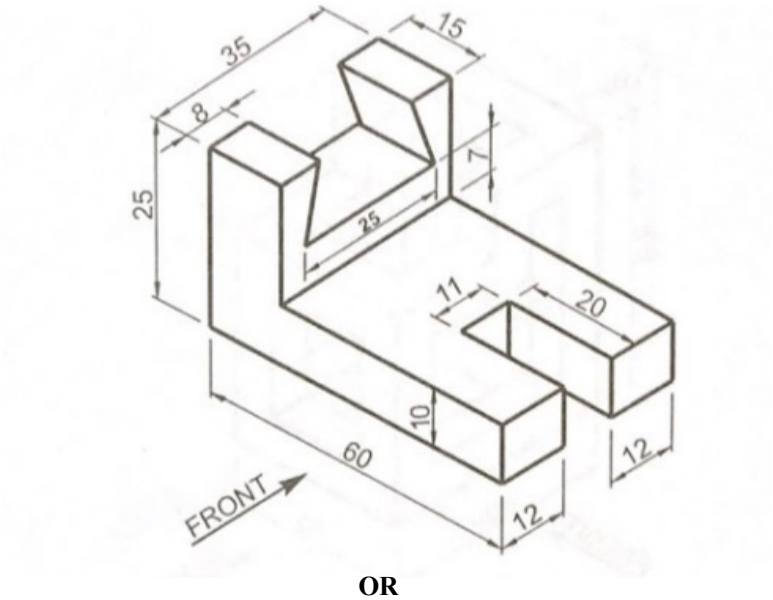
7. A square prism of base edge 40 mm and axis 70 mm long is resting on its base on GP with one base edge parallel and 20 mm behind PP. The station point is 30 mm in front of PP, 50 mm to the left of the solid and 60 mm above GP. Draw the perspective view of the solid. 12

OR

8. Draw the isometric view of a sphere of radius 25 mm, positioned centrally on the top of a hexagonal prism (base 25 mm, height 70 mm) 12

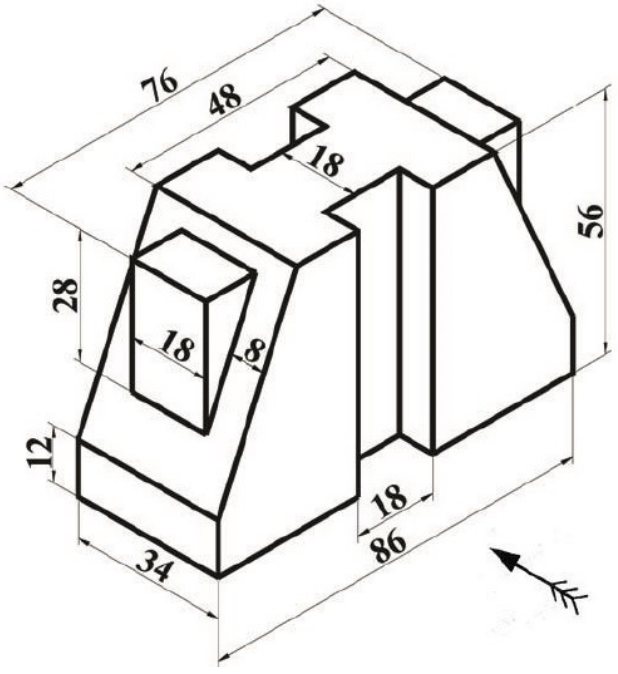
MODULE 5

9. Draw the top view, front view and left side view of the object shown below. Any missing dimension may be suitably assumed. 12



OR

10. Draw the top view, front view and left side view of the object shown below. Any missing dimension may be suitably assumed. 12



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