C **622B1** **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 Civil Engineering, Mechanical Engineering & Robotics and Automation

(2024 SCHEME)

Course Code : **24EST1004-C**

Course Name : **Engineering Graphics and Introductory CAD**

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

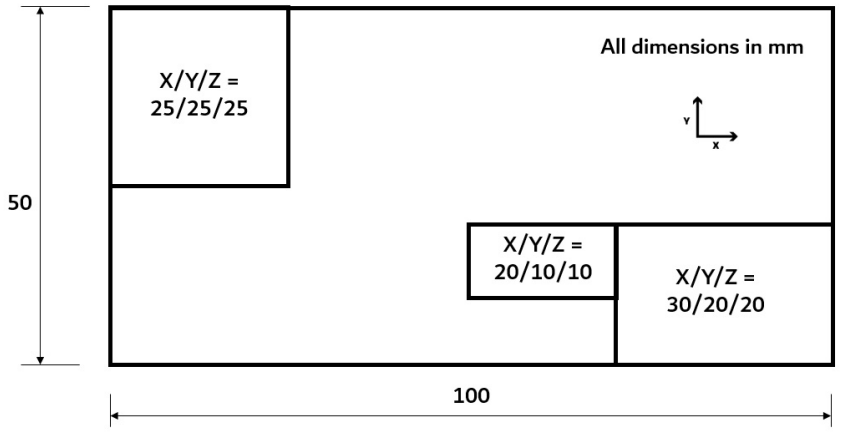
(Answer any ONE question from each module, each question carries 12 marks)

MODULE 1

1. A line AB 60 mm long has one of its end in HP and 30mm infront of VP. The line is inclined at 30 degree to HP and 45 degree to VP. Draw the projection and determine the length of front view. Also locate traces. 12

OR

2. Draw the planometric view of the figure given below



12

MODULE 2

3. A hexagonal pyramid of base edge 25 mm and height 60 mm rests on a corner of its base in such a way that the slant edge containing that corner makes an angle of 45 degree with HP and also the axis makes an angle of 40 degree with VP in its top view. Draw the projection. 12

OR

4. Draw the projection of a cone of base circle diameter 40 mm and axis 60 mm long lying on its generator in HP and the top view of axis makes an angle of 30 degree with VP. 12

MODULE 3

5. A square prism of base 30 mm and height 70 mm is resting with its base on HP, one base edge perpendicular to VP. It is cut by a section plane inclined 40 degrees to HP, passing through the mid-point of the axis. Develop the lateral surfaces of the cut solid. 12

OR

6. A cone of base circle diameter 50 mm and height 70 mm resting with its base on HP. It is cut by a section plane inclined at 40 degrees with HP and passing through a point in the axis which is 30 mm 12

below the apex. Draw the sectional front and top views and also the true shape of the section.

MODULE 4

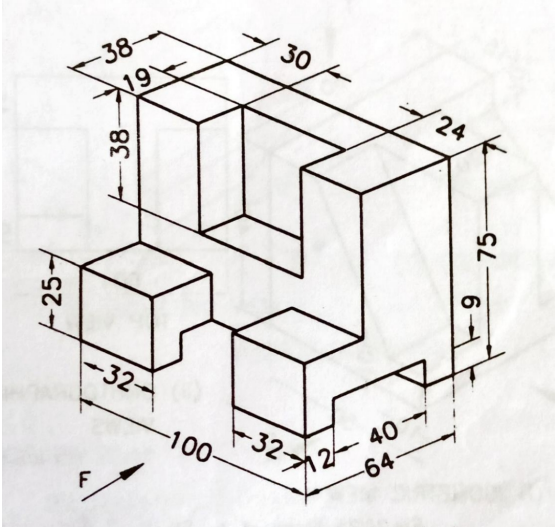
7. Draw the isometric view of a sphere of radius 15 mm kept centrally over a hexagonal prism of base edge 30 mm and height 40 mm resting on its base in HP. 12

OR

8. A pentagonal pyramid of base edge 25 mm and axis 60 mm long is resting on its base on GP with one of the base edges parallel to PP and 10 mm behind PP. The station point is 25 mm in front of PP, 50 mm to the right of the axis of the solid and 60 mm above GP. Draw the perspective view of the solid. 12

MODULE 5

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



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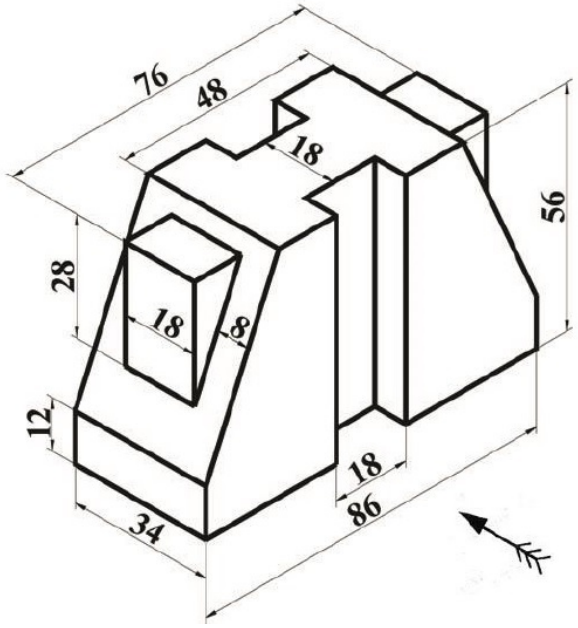
OR

10. Draw the top view, front view (take the arrow as reference) and left side view of the object shown below. Any missing dimension may be suitably assumed.



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