



Question Paper Code

14268

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2025

First Semester

Civil Engineering

(Common to All Branches)

24ESGE101 - ENGINEERING GRAPHICS

Regulations - 2024

Duration: 3 Hours

Max. Marks: 100

PART - A (5 × 17 = 85 Marks)

Answer ALL Questions

- | | Marks | K-Level | CO |
|---|-------|---------|-----|
| 1. a) Construct an ellipse when the distance between the focus and directrix is 35 mm and eccentricity is 3/4. Also draw the tangent and normal to any point on the curve. | 17 | K3 | CO1 |
| OR | | | |
| b) A circle of 50 mm diameter rolls along a line. A point on the circumference of the circle is in contact with the line in the beginning and after one complete revolution. Draw the cycloidal path of the point. Draw a tangent and normal at any point on the curve. | 17 | K3 | CO1 |
| 2. a) A straight line AB of 75 mm long is inclined at 30° to the HP and 45° to the VP. The end A is 15 mm in front of VP and 20 mm above HP. Draw the projections of the line. | 17 | K3 | CO2 |
| OR | | | |
| b) A regular pentagonal lamina of 30 mm sides has one edge in HP. Draw its projections when its surface is inclined at 45° to HP. | 17 | K3 | CO2 |
| 3. a) A pentagonal prism of base side 25 mm and height 55 mm is resting on HP with one of its corner, such that the axis is inclined at 50° to HP and parallel to VP. Draw the projections of the prism. | 17 | K3 | CO3 |
| OR | | | |
| b) A cone of diameter 40 mm, height 60 mm, base resting on VP such that the axis inclined at 30° to VP. Draw its projections. | 17 | K3 | CO3 |
| 4. a) Draw the front, top and right side view of the below diagram. | 17 | K3 | CO4 |

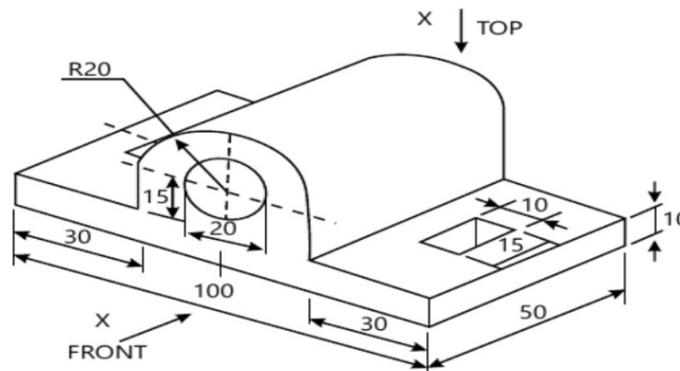


Fig.1

OR

- b) Draw the Front, Top and side view of the below diagram.

17 K3 CO4

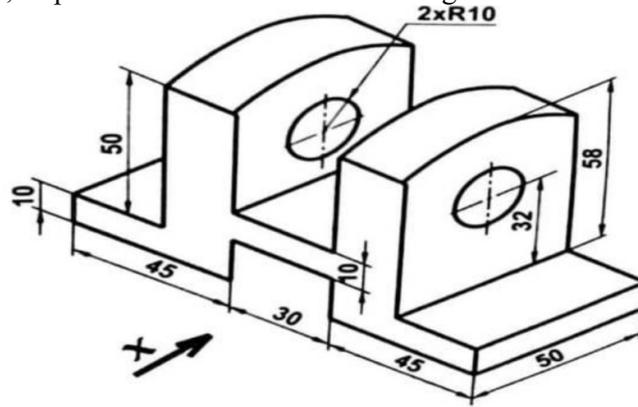


Fig.2

5. a) A cone base 40mm diameter and axis 60mm long, rest with its base on HP. it is cut by a section plane perpendicular to VP, parallel to one of the end generator and passing through a point on the axis 25mm from the apex. Draw sectional top view and true shape of the section. 17 K3 CO5

OR

- b) A Pentagonal pyramid of base 25 mm side and height 65 mm stands with its base on HP such that one of the base edges is parallel to the VP. It is cut by a section plane perpendicular to the VP and inclined at 30° to the HP, bisecting the axis. Draw the development of the lateral surface of the pyramid. 17 K3 CO5

PART - B (1 × 15 = 15 Marks)

6. a) A pentagonal pyramid of base side 30 mm and axis length 60 mm rests with its base on the ground with one of the base edge parallel to VP and nearer to it. A section plane perpendicular to VP and inclined 30° to HP cuts the pyramid passing through a point on the axis at a height of 35mm from the base. Draw the Isometric projections of the truncated pyramid. 15 K3 CO6

OR

- b) A cylinder 50mm diameter and 60mm height stands on HP. A section plane perpendicular to VP, inclined at 55° to HP cuts the cylinder and passing through a point on the axis at a height, of 45 mm above the base. Draw the Isometric projection of the truncated portion of the cylinder, when the cut surface is clearly visible to the observer. 15 K3 CO6