Reg. No.															

Question Paper Code	13719

B.E. / B.Tech. / M.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2025

Second Semester

Civil Engineering

(Common to All Branches)

24ESGE101 - ENGINEERING GRAPHICS

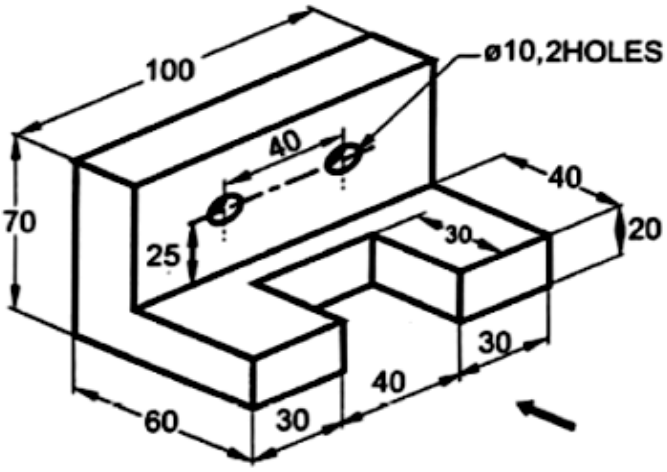
Regulation - 2024

Duration: 3 Hours | Max. Marks: 100

PART - A (5 × 17 = 85 Marks)

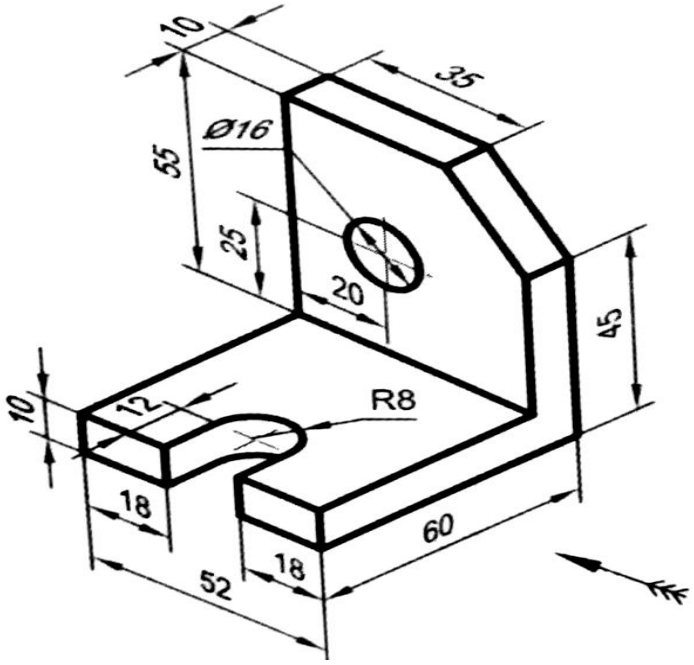
Answer ALL Questions

			Marks	K – Level	CO
1.	a)	(i) Construct an ellipse given the distance of the focus from the directrix as 50 mm and eccentricity as 2/3. (ii) Draw the tangent and normal at any point on the curve.	17	K3	CO1
		OR			
	b)	(i) Construct a parabola given the distance of the focus from the directrix as 50 mm. (ii) Draw the tangent and normal at any point on the curve.	17	K3	CO1
2.	a)	A line CD measuring 80 mm is inclined at an angle of 30° to HP and 45° to VP. The point C is 20 mm above HP and 30 mm in front of VP. Draw its projections.	17	K3	CO2
		OR			
	b)	A hexagonal plane of side 30 mm is placed with one side on HP. The surface is inclined at 50° to HP and perpendicular to VP. Draw (i) simple position of plane (ii) final projections of plane.	17	K3	CO2
3.	a)	A pentagonal prism of base side 30 mm and axis length 60 mm rests on HP on one of the base corner with the base edges containing it being equally inclined to HP. The axis is inclined at 45° to HP and parallel to VP. Draw the (i) simple position of the solid (ii) final projections of the solid.	17	K3	CO3
		OR			
	b)	A cone of base 40 mm diameter and axis 50 mm long touches VP on a point of its base. Its axis is inclined at 30° to VP and parallel to HP. Draw the (i) simple position of the solid (ii) final projections of the solid.	17	K3	CO3
4.	a)	Draw the following orthographic views for the given isometric view (i) Front View (ii) Top View and (iii) Side View as viewed from the side available for viewing.	17	K3	CO4



OR

b) Draw the following orthographic views for the given isometric view (i) Front View (ii) Top View and (iii) Side View as viewed from the side available for viewing. *17 K3 CO4*



5. a) A square pyramid of base 30 mm and axis 60 mm long is standing on HP with its base edges equally inclined to VP. It is cut by a section plane perpendicular to VP and inclined at 30° to HP, bisecting the axis. Draw (i) sectional top view and (ii) true shape of section. *17 K3 CO5*

OR

b) A cylinder of base diameter 50 mm and axis length 60 mm is resting on HP on its base, cut by a plane inclined at 55° to HP and perpendicular to VP. The cutting plane is passing through a point on the axis at a distance 30 mm from the top end. Draw (i) Simple position of solid and (ii) Develop its lateral surface of the available portion. *17 K3 CO5*

PART - B (1 × 15 = 15 Marks)

6. a) A hexagonal prism, side of base 25 mm and height 50 mm rests on HP on its base and one of its base edge is parallel to VP. A section plane perpendicular to VP and inclined at 50° to HP bisects the axis of the prism. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid. *15 K3 CO6*

OR

b) A cone of base diameter 50 mm and height 70 mm stands on HP with its base. It is cut by a cutting plane inclined at 30° to HP cutting the axis of the cone at a height of 40 mm from its base. Draw (i) simple position of solid and (ii) isometric view of the truncated portion of the solid. *15 K3 CO6*