

**PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)**

I B.Tech II Semester Regular Examinations, June-2024

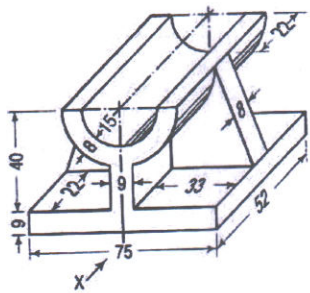
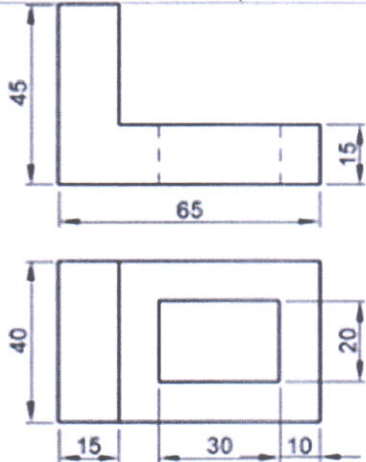
**ENGINEERING GRAPHICS
(Common to CIVIL,EEE,ME and IT)**

Time: 3 hours

Max. Marks: 70

**Answer ONE Question from each Unit
All Questions Carry Equal Marks**

Q. No.	Questions	BTL	CO	Marks
UNIT – I				
1.	Construct a vernier scale to read meters, decimeters and long enough to measure up to 6 meters when 1 m is represented by 2.5 centimeters. Find R.F. and show on it a distance of 4.33 meters.	K3	CO1	14M
OR				
2.	a) Construct a regular pentagon of side 30mm when one of its side is horizontal.	K3	CO1	4M
	b) Draw an ellipse with eccentricity $\frac{3}{4}$ and the distance between directrix and focus is 50mm.	K3	CO1	10M
UNIT – II				
3.	a) A point P is 15 mm above the HP and 20 mm in front of the VP. Another point Q is 25 mm behind the VP and 40 mm below the HP. Draw projections of P and Q keeping the distance between their projectors equal to 50 mm. Draw straight lines joining (i) their top views and (ii) their front views.	K3	CO2	7M
	b) Two pegs fixed on a wall are 4.5 m apart. The distance between the pegs measured parallel to the floor is 3.6 m. If one peg is 1.5 m above the floor, find the height of the second peg and the inclination of the line joining the two pegs, with the floor.	K3	CO2	7M
OR				
4.	A regular pentagon of of 25 mm side has one side in the HP. Its plane is inclined at an angle of 30° to the HP and perpendicular to the VP. Draw the projections of the pentagon.	K3	CO2	14M
UNIT – III				
5.	A hexagonal pyramid, base 30 mm and axis 60 mm long has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to the VP. Draw its projections.	K3	CO3	14M
OR				
6.	Draw the projections of a cylinder 75 mm diameter and 100 mm long, lying on the ground with its axis inclined at 30° to the VP and parallel to the ground.	K3	CO3	14M
UNIT – IV				
7.	A cylinder of 45 diameter and 70 long, is resting on one of its bases on HP. It is cut by a section plane, inclined at 60° with HP and passing through a point on the axis at 15 from one end. Draw the front view, sectional top view and true shape of the section.	K3	CO4	14M
OR				

8.	A hexagonal pyramid having base side 25 mm and 70 mm height resting on base with one of its base edges parallel to VP. It is cut by a section plane passing through a point at 30 mm height from the base and making an angle 45° with HP. Draw the development of lateral surface of remaining part of the pyramid.	K3	CO4	14M
UNIT – V				
9.	<p>Draw three views of the following component in first angle projection. (All dimensions are in mm)</p> 	K3	CO5	14M
OR				
10.	<p>Draw the isometric view of the following orthographic projections. (All dimensions are in mm)</p> 	K3	CO5	14M