4/6/2014

University of Pune

Total No. of Questions: 8] [Total No. of Pages: 2

F. E. (Semester – I) Phase IV Examination, June 2014

Engineering Graphics – I

(2012 Pattern)

Time: 2 Hrs.] [Max. Marks: 50

Instructions:

1. *Use only half imperial size drawing sheet as answer book.*
2. *Retain all construction lines.*
3. *Assume suitable data if necessary.*

Q.1 The point A and B of line AB are in HP and in VP respectively. The point A is 55mm in front of VP. Point B is 50mm above HP. Draw the projections, if the true length of line AB is 100mm. Locate the traces. **12**

OR

Q.2 The point P of line PQ is in VP and 20 mm above HP. The top view of line PQ makes 40° with XY, while its elevation makes 35° with XY. Draw the projections if the projector distance between the end points of line is 80 mm. Find the true inclinations made by the line and locate the traces. **12**

Q.3 A circular lamina of diameter 60 mm is resting in VP on one of its circumferential point. Then, its surface is inclined to VP at an angle of 45°. Draw the projections of lamina, if the front view of a diameter line passing through the resting point makes 35° with HP. Find the true inclination made by the lamina with HP. **13**

OR

Q.4		A triangle ABC [AB = 40 mm, BC = 60 mm and angle ABC = 90°] is resting in HP on its side AB. Then its surface is inclined to HP in such a way that the point C is 39 mm above HP. Draw the projections if the resting side is inclined at an angle of 20° with VP. Find the inclination made by the plane with VP.	13
Q.5		A cone of base diameter 60 mm and axis height 80 mm is resting in HP. Then, it is inclined to HP so that the generator passing through resting point is at an angle of 45° with HP. Draw the projections, if the plane containing the axis makes 35° with VP, being apex nearer the observer.	13
		OR	
Q.6		A triangular prism, base side 50 mm and axis height 75 mm, is resting in HP on one of its base corner. Draw the projections, if the edge containing the resting corner makes 30° with HP and 45° with VP.	13
Q.7	A	Draw a parabola by focus-directrix method, if the distance of focus from the directrix is 70 mm.	6
	B	Draw a helix of one revolution to a cylinder of base diameter 50 mm and axis height 80 mm.	6
		OR	
Q.8	A	Draw an ellipse by rectangular method, if the major and minor axes are 100 mm and 60 mm respectively.	6
	B	Draw an involute of a circle with diameter 50 mm.	6