

ENGINEERING GRAPHICS -1- 2011

(Common for all branches)

Except 1/4 B.Tech (CT & GI) & 1/5 MS (SE&IT)

(Effective from the admitted batch of 2006-2007)

Part A is compulsory. Answer any FOUR question from part-B. Part-A is to be answered on the main answer book and Part-B on the drawing sheet. All questions carry equal marks. Assume the missing data if any suitably.

PART - A

1. a) Define a Conic.
b) What is the use of an ep-trochoid?
c) What is the use of an auxiliary plane?
d) What are the different types of solids?
e) What are the different methods of developing the lateral surface of a pyramid?
f) Define Perspective projection.
g) What is Vanishing Point method?

PART - B

2. Draw the perspective view of a vertical steel cup-board 1 m x 2 m x 0.35 m deep, having four shelves. One

shutter is open. The front of the cup-board makes an angle of 30° with the picture plane, with a vertical edge touching it. Assume suitable position of the spectator at a height of 4m above the ground.

3. A cone of base diameter 50 and axis 60 rests with its base on H.P. A section plane perpendicular to V.P. and inclined at 30° to H.P. passes through the axis, at a distance of 25 above the base. Draw the isometric projection of the truncated cone. Use off-set method.
4. A cone, base 60 mm diameter and axis 60 mm long is lying on the H.P. on one of its generators with the axis parallel to the VP. On one of its generators with the axis parallel to the VP. A vertical section plane parallel to the generator which is tangent to the ellipse in the top view cuts the Cone bisecting the axis and removing a portion containing the apex. Draw its sectional front view and true shape of the section.
5. A vertical cylinder of 60 diameter, is penetrated by another cylinder of the same size. Draw the line of intersection, when the axes intersect at 60° .
6. A square pyramid, base 40 mm side and axis 90mm long, has a triangular face on the ground and the vertical plane containing the axis makes an angle of 45° with the V.P. Draw its projections.
7. A circle of 40 mm diameter rolls on the inside of a circle of 90 mm diameter. A point P lies within the rolling circle at a distance of 15mm from its centre. Trace the path of the point P for one revolution of the circle.
8. Construct a scale of S.F. 1:25 to show decimeter and centimeters and by vernier to read millimeters, to measure up to 4 decimeters. Show it, lengths representing 2.20 decimeters and 0.01 decimeter.