| SET - 2 | GR 14 | CODE: GR14A1023 |
|---|---|---|

# I B. Tech I Sem Supple & II Sem Regular Examinations, June, 2015

## ENGINEERING GRAPHICS
## (Common to all Branches)

**Time: 3 hours** **Max Marks: 70**

**PART – A**
**Answer ALL questions**
**All questions carry equal marks**
*****

**5 * 4 Marks = 20 Marks**

**1). a** Construct a Vernier Scale of 1:50, showing metres, decimetres and centimetres and long enough to measure 5 metres. Mark distance of 2.435 m on the scale. **[4]**

**b** A point A is situated in the first quadrant. Its shortest distance from the intersection point of H.P, V.P. and auxiliary plane is 60 mm and it is equidistance from the principal planes. Draw the projections of the point and determine its distance from the principal planes. **[4]**

**c** Draw the Projections of a Circle of 50 mm diameter, resting on the HP on a point of circumference and its plane is inclined $45^0$ to the HP and parallel to VP. **[4]**

**d** A Square Pyramid of side of base 30 mm and axis 60 mm long is resting on its base on the HP with an edge of the base parallel to the VP. Draw the development of the lateral surface of the Pyramid. **[4]**

**e** Draw the Isometric Projection of a sphere of diameter 50 mm resting centrally on the top of a square prism of side of base 60mm and height 30 mm. Draw the Isometric Projection of the arrangement. **[4]**

**PART – B**
**Answer any FIVE questions**
**All questions carry equal marks**
*****

**5 * 10 Marks = 50 Marks**

**2.** The Foci of an Ellipse are 100 mm apart and the minor axis is 70 mm long. Determine the length of the major axis and draw half the ellipse by concentric circles method and the other half by oblong method. **[10]**

**3.** The end A of a line AB is in the H.P. and 25 mm behind V.P. The end B is in the V.P. and 50 mm above the H.P. The distance between the end projectors is 75 mm. Draw the projections of AB and determine its true length, traces and inclinations with the two planes. **[10]**

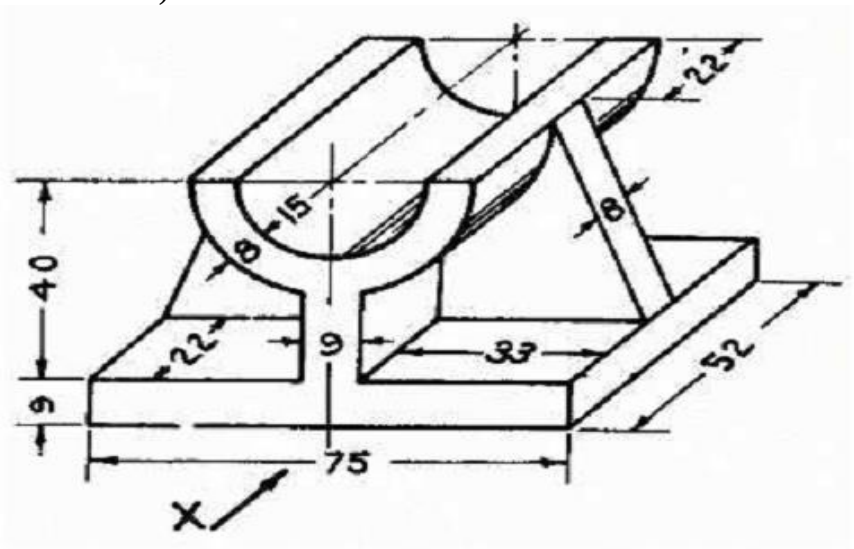
**4.** Draw the Projections of a Cylinder of 40mm diameter and axis 60mm long resting on H.P on a point on its base circle with its axis inclined at $30^0$ to H.P and top view of axis making $45^0$ with V.P. **[10]**

**5.** A Pentagonal Pyramid edge of base 25 mm and height of axis 60 mm, has its base on the ground and an edge of the base parallel to V.P. It is cut by a plane, the H.T. of which makes an angle of $45^o$ to the V.P. and is passing 15 mm from the plane axis. Draw the sectional elevation and true shape of the section. **[10]**

**6.** A Right Circular Cone, 60 mm base and 70 mm height rest on its base on the HP. It is cut by a section plane perpendicular to the VP and inclined at $30^0$ to the HP bisecting the axis. Draw the sectional top view and development of lateral surface of the Truncated Cone. **[10]**

**7.** A Square Pyramid of base side 25mm and axis 40mm rests centrally over a cylindrical block of base diameter 50mm and height 20mm. Draw the Isometric Projection of the arrangement**.** **[10]**

**8.** Draw the front view, top view and right side view of the object shown in figure. (All dimensions in mm). **[10]**




*****