R09

Code No: 51015

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD
B.Tech I Year Examinations, December-2014/January-2015
ENGINEERING DRAWING
(Common to IT, AME, MSNT)

Time: 3 hours **Max. Marks: 75**

Answer any five questions
All questions carry equal marks

- - -

1. The distance between Hyderabad and Warangal is 130 Km. A train covers this distance in 2.5 hours. Construct a plain scale to measure time up to a single minute. The RF of the scale is 1:2,60,000. Show the distance covered by the train in 45 secs.

2. Draw the projections of a line AB, 90 mm long, its mid-point M being 50 mm above the H.P. and 40 mm in front of the V.P. The end A is 20 mm above the H.P. and 10 mm in front of the V.P Show the traces and the inclinations of the line with the H.P. and the V.P.

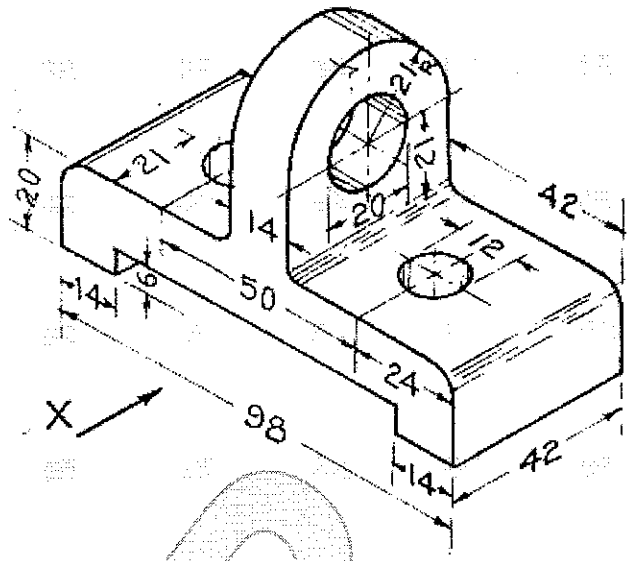
3. A hexagonal prism with face width 30 mm and height 70 mm has its edge of the base in the VP and inclined at 60^0 to the HP. The base is inclined to the VP at 30^0. Draw the front view and top view of the prism.

4. A cone of the diameter of base 50mm and axis 60mm long is resting on its base on H.P. Draw the projections of the cone and show on it, the shortest path traced by a point, starting from a point on the circumference of the base of the cone, moving around it and reaching the same point.

5. A cylinder with a 70 mm base diameter is resting on its base on the H.P. It is penetrated by another cylinder with a 50 mm base diameter, the axis of which is parallel to both the principal planes. The two axes are 14 mm apart. Draw the projections of the combination and show the curves of intersection.

6. A combination of solids is formed as follows: A frustum of a cone has its top and bottom diameters 35 mm and 50 mm respectively and altitude 53 mm. It rests on the top face of a frustum of a square pyramid. Sides of the top and bottom faces of pyramid are 58 mm and 70 mm respectively. Height is 22 mm. Draw the isometric projection of the combination of solids.

7. For the isometric view given in the figure below using first angle projection, draw
a) Front view b) Top view and c) Side view
All dimensions are in mm.



8. Draw the perspective projection of a point A situated 20 mm behind the picture plane and 15 mm above the ground plane. The station point is 30 mm in front of the picture plane, 40 mm above the ground plane and lies in a central plane which is 35 mm to the left of the given point.

****