R13

Code No: 111AK

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD
B.Tech I Year Examinations, December-2014/January-2015
ENGINEERING DRAWING
(Common to CE, EEE, CHEM, AE, CEE, AGE)

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

Answer any five questions
All questions carry equal marks

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1. The distance between JNTUHCEH and Balanagar is 2.5 Km. On inspection of road map, its equivalent distance measures 5 cm. Draw a Diagonal scale to read 50 meters minimum. Show on it a distance of 6350 metres.

OR

2. Construct a hyperbola, with the distance between the focus and the directrix as 50 mm and eccentricity as 3/2. Also, draw normal and tangent to the curve at a point 30 mm from the directrix.

3. The top view of a line PQ makes an angle of 30^0 with the horizontal and has a length of 100 mm. The end Q is in the H.P and P is in the VP and 65 mm above HP. Draw the projections of the line and find its true length and true inclinations with the reference planes. Also show its traces.

OR

4. Draw the projections of a circle of 50 mm diameter resting in the H.P. on a point A on the circumference. Its plane is inclined at 45 degrees to the H.P. and the diameter AB making 30 degrees angle with the V.P.

5. Draw the projections of a cone of base circle diameter 40 mm, axis length 60 mm resting on the HP on a generator with a plane containing that generator is 40° inclined to VP.

OR

6. A hexagonal prism of base of side 40 mm and axis length 80 mm rests on one of its base edges on the HP. The end containing that edge is inclined at 30^0 to the HP and the axis is parallel to VP. It is cut by a plane perpendicular to the VP and parallel to the HP. The cutting plane bisects the axis. Draw its front and the sectional top views.

7. A square prism, side of base 40 mm and height 60 mm, is resting on HP on its base with one of the edges of the base perpendicular to VP. It is cut by a section plane perpendicular to VP and inclined to HP at 45^0 and passing through a point 15 mm from the top end of the axis. Draw the complete development of the complete portion of the prism between section plane and the bottom of prism.

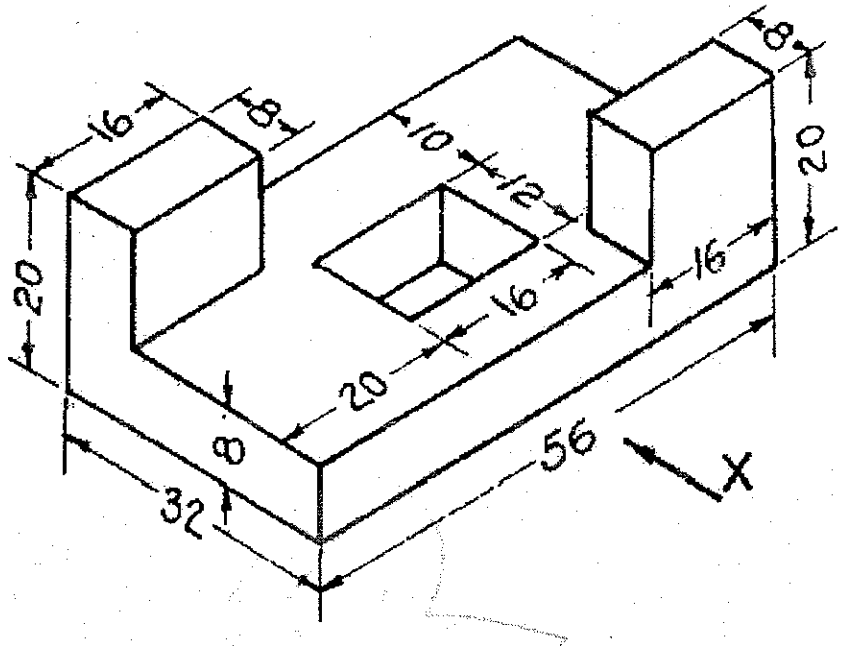
OR

8. A vertical cylinder of 50 mm diameter and 75 mm long is penetrated by a horizontal cylinder of 40 mm diameter and 75 mm long such that their axes bisect each other at right angles. Draw the intersection curve.

9. Draw the isometric projection of the following combination solids: Sphere of diameter 50 mm resting centrally on the top of a Cube of side 60 mm. Also show the isometric scale.

OR

10. Draw the front view, top view and side view of the isometric view shown in the figure below (follow first angle projection method). All dimensions are in mm.



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