R13

Code No: 111AH

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD

B.Tech I Year Examinations, December-2014/January-2015

ENGINEERING DRAWING

(Common to CSE, BME, MIE, PTE)

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

Answer any five questions
All questions carry equal marks

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1. Construct a hyperbola when the distance between the focus and directrix is 40mm. The eccentricity is 4/3. Draw a tangent and normal at any point on the hyperbola.

OR

2. The actual length of 300 m of an auditorium is represented by a line of 10 cm on a drawing. Draw a vernier to read upto 400 m. Mark on it a length of 343 m.

3. Draw a hypocycloid when the radius of the directing circle is twice is twice the radius of generating circle. Radius of the generating circle is 35 mm.

OR

4. Draw the projections of a straight line AB of 100 mm long when one of its ends is touching the VP and the other end touching H.P. The angles of inclination with HP and VP are 40^0 and 50^0 respectively.

5. A square ABCD of 50 mm side has its corner A in the H.P, its diagonal AC is inclined at 30^0 to the H.P. and the diagonal BD inclined at 45^0 to the V.P and parallel to the H.P. Draw the projections.

OR

6. A square pyramid base 38 mm side and axis 50 mm long, is freely suspended from one of the corners of its base. Draw its projections when the axis as a vertical plane makes an angle of 45^0 with the V.P. When a pyramid is suspended freely from the corner of its base, the imaginary line joining that corner with the center of gravity of the pyramid will be vertical.

7. A cone base 70 mm diameter axis 75 mm long and resting on its base on the HP is cut by a vertical sectional plane, the HT of which makes an angle of 60^0 with the reference line and is 12 mm away from the top view of the axis. Draw the sectional front view and true shape of the section.

OR

8. Draw the development of the lateral surface of the P of cone, front view is shown in below figure 1. All dimensions are in mm.

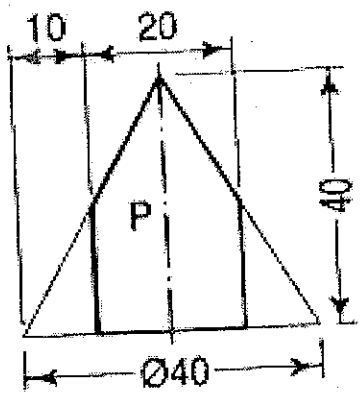

Figure: 1

9. Draw the isometric view of the casting shown in two views as shown in figure 2. All dimensions are in mm.

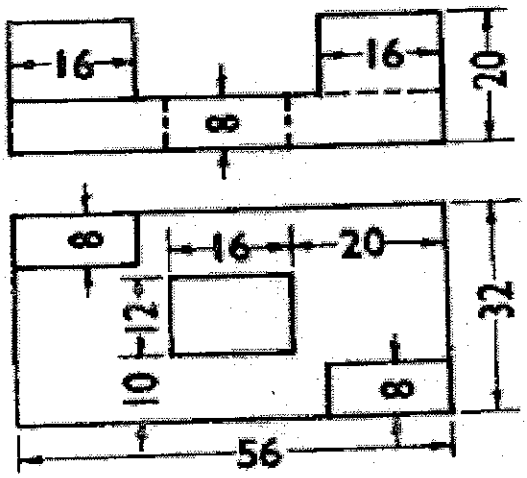

Figure: 2

OR

10. Draw the perspective view of the square pyramid of base 100 mm side and height of the apex 120 mm. The nearest edge of the base is parallel to and 30 mm behind the picture plane. The station point is situated at a distance of 300 mm from the picture plane, 60 mm above the ground plane and 200 mm to the right of the apex.

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