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

Time: 3hours

Max.Marks:75

Answer any five questions
All questions carry equal marks

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1.a) The focii of an ellipse are 90 mm apart and minor axis is 60 mm long. Determine the length of the major axis and draw the ellipse.

b) Construct a vernier scale of R.F=1,40,000 to measure kilometers and sub-divisions and long enough to measure up to 6Km. Mark on it a length of 3.36 Km.

OR

2.a) Construct a hyperbola, when the focus is 6.5cm from directrix and eccentricity is 4/3. Draw normal and tangent to the curve from a point 2cm above the axis.

b) Draw a cycloid, when the rolling circle is 40 mm diameter for one complete revolution. Draw tangent and normal to the curve from a point 30 mm above the directing line.

3. The top view of a line of 70 mm long measures 60 mm, while the front view is 50mm. Its one end is 10 mm above H.P and 12mm in front of VP. Draw the projections and find inclinations with H.P and V.P. Find the traces.

OR

4. A 30^0-60^0 set square of longest side 80 mm long is resting on this side in V.P and makes an angle of 60^0 with HP and its surface makes an angle of 30^0 with V.P. Draw the projections.

5. A Hexagonal pyramid of 3cm side and axis 7cm is resting on an edge on H.P such that the axis is inclined at 30^0 to H.P and the edge on which it is resting is inclined at 45^0 to V.P. Draw the projections.

OR

6. A cone of 50mm diameter and 70 mm axis is resting on one of its generators in H.P such that the axis is parallel to V.P. It is cut by a vertical section plane inclined at 30^0 V.P. and passes through a point 2.5 cms from apex. Draw the sectional views and true shape of section.

7. A cylinder of 50mm diameter and height 65mm is resting on its base in H.P. It is cut by a section plane perpendicular to V.P, inclined at 45^0 to H.P and passes through extreme top left end of the cylinder. Draw the development of the lateral surface of the cut cylinder.

OR

8. A cone of 60 mm diameter 75 mm height is resting on its base in H.P. It is penetrated by a horizontal cylinder of 30 mm diameter such that the axis of two solids intersect each other at right angles and 25 mm above the base of cone. Draw the projections showing the curves of intersection.

9. Draw the isometric projection of a square prism of 3cm side 6cms long when the axis is: a) vertical   b) horizontal.

OR

10. Draw the perspective view of a square prism 4cm side and axis 60 mm long resting on its base on the ground such that one of the base edges is inclined at 50^0 to PP and axis is 40 mm behind PP. The station point is 40 mm in front of PP, 80 mm above GP and lies in a central plane which is 45 mm to the right of the axis.

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