JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, HYDERABAD
B.Tech I Year Examinations, June - 2014
ENGINEERING DRAWING
(Common to CSE, BME, BT, MIE, MIM, PTE)

Time: 3 hours   Max. Marks: 75

Answer any five questions
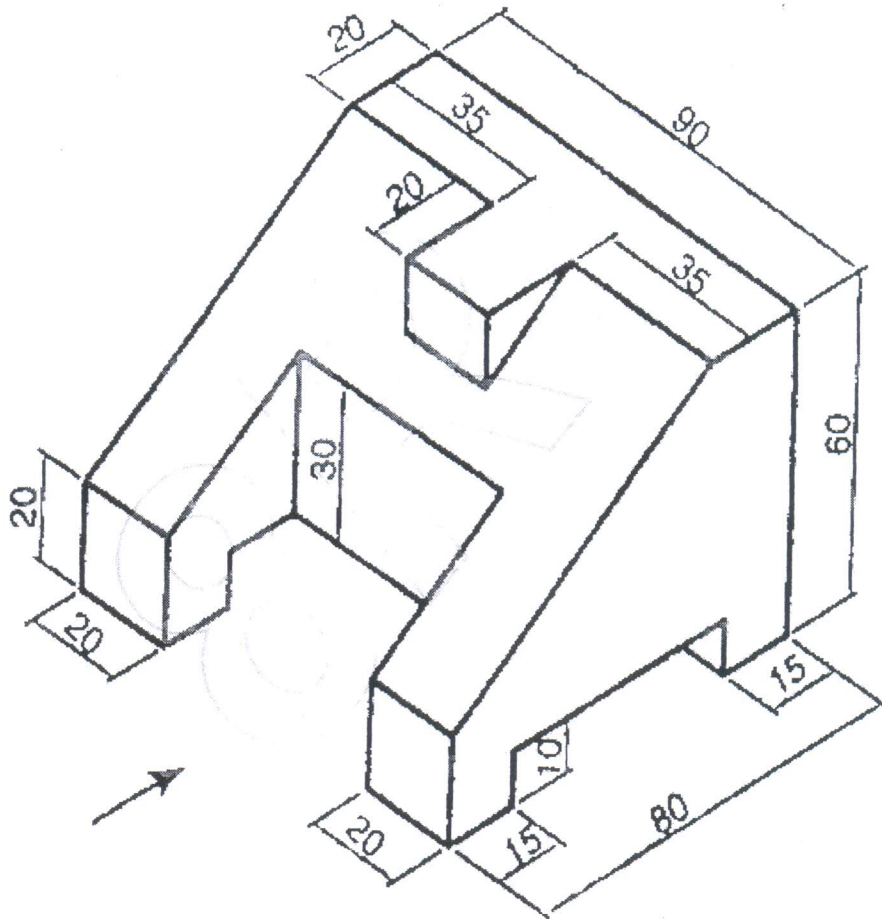**All questions carry equal marks**
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1.   Construct a vernier scale of R.F 1:80 to read inches and to measure upto15 yards.

OR

2.   Draw a parabola given that the distance between the directrix and focus is 4cm. Draw tangent and normal to the curve at any point on the curve.

3.a)   Two points A and B are in the H.P. The point A is 30 mm in front of the VP, while B is behind the V.P. The distance between their projections is 75 mm and line joining their top views makes an angle of 45^0 with xy. Find the distance of the point B from the V.P.

  b)   The top view of a 75 mm long line AB measures 65 mm, while the length of its front view is 50 mm. Its one end A is in the H.P and 12 mm in front of the VP. Draw the projections of AB and determine its inclinations with the H.P and the V.P.

OR

4.   A regular hexagonal lamina with its edge 50 mm has its plane inclined at 45^0 to H.P and lying with one of its edges in H.P. The plane of one of its diagonals is inclined at 45^0 to XY. The corner nearest to VP is 15mm in front of it. Draw its projections.

5.   A pentagonal prism of side of base 30mm, axis 70mm is resting on one of its base edges in H.P. with its axis inclined at 45^0 to H.P. The top view of the axis is inclined at 30^0 to V.P. Draw the projections.

OR

6.   A square prism with a base having 40 mm sides and height 60 mm is kept on its base on the H.P. such that one of its rectangular faces makes an angle of 30^0 with V.P. It is cut by a section plane parallel to V.P. such that the true shape of the section is a rectangle with 30 mm and 60 mm sides. Draw its sectional front view and top view.

7.   A square pyramid, base 50 mm side and axis 75 mm long, is resting on H.P on one of its triangular faces, the top view of the axis making an angle of 30^0 with V.P. It is cut by a horizontal section plane, the V.T of which intersects the axis at a point 6 mm from the base. Draw the front view, sectional top view and the development of the sectioned pyramid.

OR

8.   A pentagonal pyramid base 30 mm side and axis 60 mm long lying on one of its triangular faces on the HP with the axis parallel to VP. A vertical section plane whose H.T bisects the top view of the axis and makes an angle of 30 degrees with reference line cuts the pyramid removing its top part. Draw the top view, sectional front view and true shape of the section.

9. Draw the perspective view of a square pyramid of base side 50 mm and height 80 mm resting on GP with the nearest edge of base parallel to PP and 30 mm behind it. The station point is situated at a distance of 120 mm from PP, 50 mm above GP and 80 mm to the right of the apex of the pyramid.

OR

10. Draw the following views for the object shown in figure. All dimensions are in mm.
    a) Front view
    b) Top view
    c) Left Side view.

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