

Code No: 51012

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**B.Tech I Year Examinations, May - 2018****ENGINEERING DRAWING****(Common to ME, MMT)**

Time: 3 hours

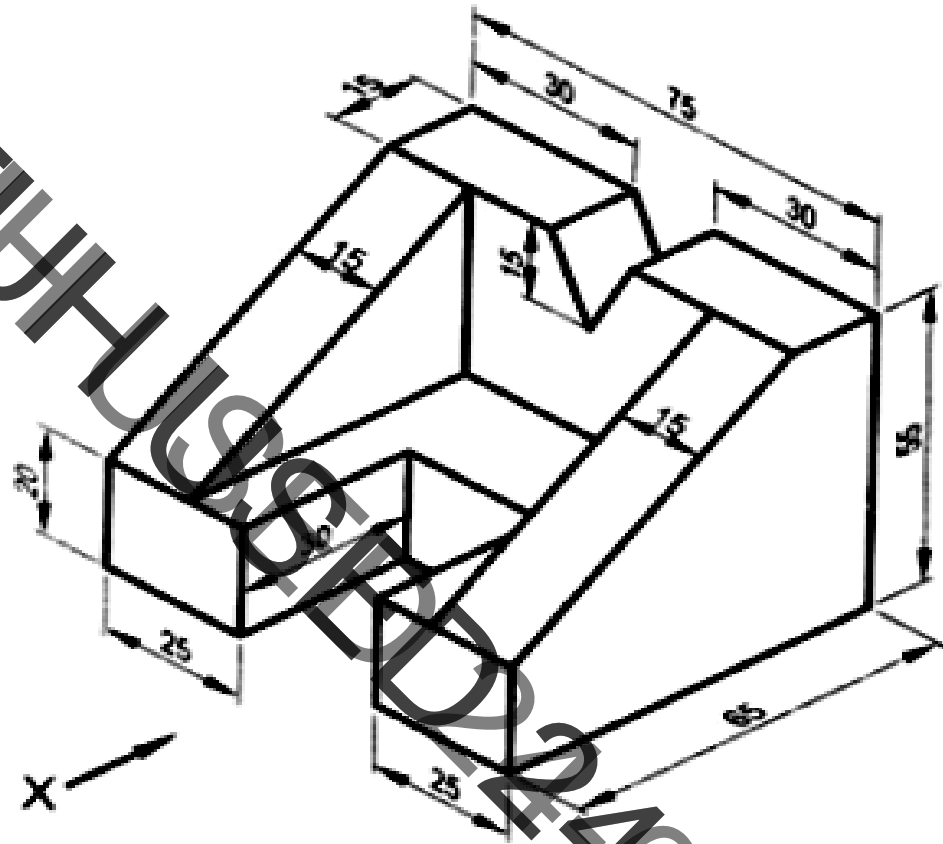
Max. Marks: 75

Answer any five questions**All questions carry equal marks**

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- 1.a) The distance between two points on a map is 5 cm. The real distance between them is 20 meters. Draw a diagonal scale to measure up to 60 m and show a distance of 43.6 m on it.
- b) Draw an epicycloid generated by a point on the circumference of a circle of diameter 50 mm which rolls outside another circle of diameter 150 mm, for one revolution. Also, draw a tangent and a normal to the curve, at a point 115 mm from the centre of the directing circle. [7+8]
2. A line PQ inclined at 30° to the V.P. has the end P 15 mm above the H.P. Its front view measures 70 mm and is inclined at 45° to reference line. The V.T. of the line is 25 mm below the H.P. Draw the projections of the line PQ and determine its true length and the H.T. [15]
3. An isosceles triangular plane ABC of base 60 mm and altitude 50 mm has its base in the H.P. and inclined at 30° to the V.P. The corners A and C are in the V.P. Draw its projections and determine the inclination of the plane with the H.P. [15]
4. A hexagonal pyramid of base side 30 mm and axis 60 mm, has an edge of its base on the ground inclined at 45° to the V.P. and the axis is inclined at 30° to the H.P. Draw its projections. [15]
5. A cylinder of base diameter 70 mm is resting on its base on the H.P. It is penetrated by another cylinder of base diameter 60 mm, such that their axes intersect each other at right angles. Draw the projections of the combinations and show the curves of intersection. [15]
6. A square pyramid of base side 25 mm and axis 40 mm rests centrally over a cylindrical block of base diameter 50 mm and thickness 20 mm. Draw the isometric projection of the arrangement. [15]
7. A square plane of side 50 mm lies on the GP with an edge parallel to and 20 mm behind the PP. The station point is 60 mm in front of PP, 65 mm above GP and lies in a CP which is 55 mm towards right of the centre of the square plane. Draw its perspective view. [15]

8. Draw front view, top view and right side view of the object shown in figure. All dimensions are in mm. [15]



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