

Code No: 111AJ**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B.Tech I Year Examinations, November/December - 2015****ENGINEERING DRAWING****(Common to ME, IT, MCT, MMT, AME, MSNT)****Time: 3 hours****Max Marks: 75****Answer any five questions
All questions carry equal marks**

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1. A circle of 50 mm diameter rolls on a straight line without slipping. In the initial position, the diameter AB of the circle is parallel to the line, on which it rolls. Draw the loci of the points A and B for one revolution of the circle. [15]

OR

2. On a map, the distance between two points is 14 cm. The real distance between them is 20 Km. Draw a Diagonal scale of this map to read kilometers and hectameters, and to measure up to 25 Km. Show a distance of 17.6 Km on this scale. [15]

3. The top view of a line PQ makes an angle of 30° 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. [15]

OR

4. Draw the projections of a rhombus of diagonals 120 mm and 60 mm long, the smaller diagonal of which is parallel to both the principal planes, while the other is inclined at 30° to the HP. [15]

5. Draw the projections of a cone base 45 mm diameter and axis 50 mm long when it is resting on the ground on a point on its base circle with the axis making an angle of 30° with the HP and 45° with the VP. [15]

OR

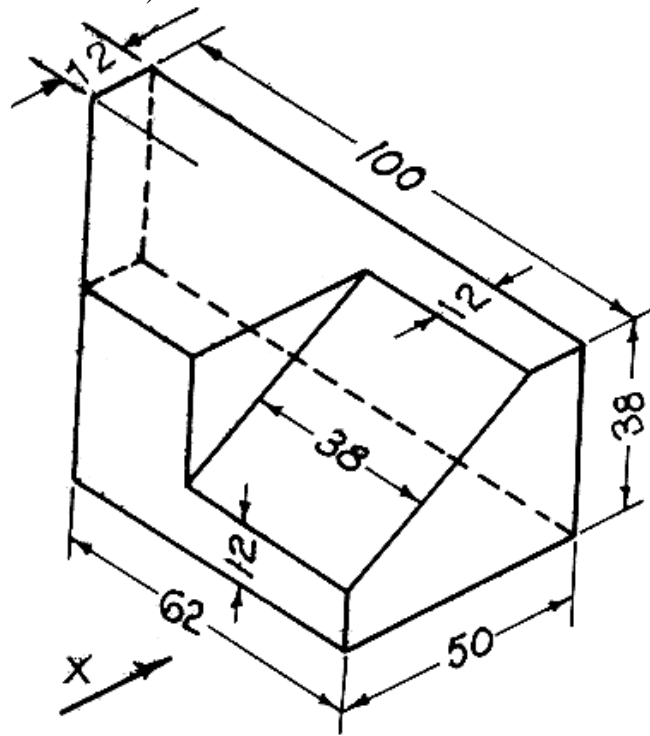
6. A square prism side of base 30 mm and axis 60 mm long rests with its base on HP and one of its rectangular faces is inclined at 30° to VP. A section plane perpendicular to VP and inclined at 60° to HP cuts the axis of the prism at a point 20 mm from its top end. Draw the Front view, sectional top view and true shape of the section. [15]

7. A cone of base diameter 50 mm and axis 60 mm is resting on its base on the H.P. A section plane perpendicular to V.P. and inclined at 45° to H.P, bisects the axis of the cone. Draw the development of its lateral surface of any piece. [15]

OR

8. A cylinder with a 70 mm base diameter is resting on its base on the H.P. It is penetrated by another cylinder with a 50 mm base diameter, the axis of which is parallel to both the principal planes. The two axes are 14 mm apart. Draw the projections of the combination and show the curves of intersection. [15]

9. Draw the Front view, Top view and left side view of the object given in figure (All dimensions are in mm). [15]



OR

10. Draw the perspective projection of a straight line AB, 60 mm long is parallel to and 10 mm above the ground plane and inclined at 45° to PP. The end A is 20 mm behind the picture plane. Station point is 35 mm in front of the picture plane and 45 mm above the ground plane and lies in a central plane passing through the mid-point of AB. [15]

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