Code No: 132AE

R16

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B.Tech I Year II Semester Examinations, July/ August - 2021
ENGINEERING GRAPHICS
(Common to CSE, IT)

Time: 3 Hours **Max. Marks: 75**

Answer any three questions
All questions carry equal marks
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1.a) Draw an involute of a circle of 40 mm diameter. Also, draw a normal and tangent to it a point 100 mm from the center of the circle.

b) On a building plan, a line 20 cm long represents a distance of 10 m. Devise a diagonal scale for the plan to read up to 12 m, showing meters, decimeters and centimeters. Show on your scale the lengths 6.48 m and 11.14 m. [10+15]

2. The front view of a 125mm long line PQ measures 75mm and its top view measures 100mm. Its end Q and the mid-point M are in the first quadrant, M being 20mm from both the planes. Draw the projections of the line PQ. [25]

3.a) Draw the projections of a regular pentagon of 40mm side, having its surface inclined at 30^0 to the H.P and a side parallel to the H.P and inclined at an angle of 60^0 to the V.P.

b) A pentagonal pyramid, base 30 mm side and axis 70 mm long, has one of its slant edges in the H.P. and inclined at an angle of 30^0 to the V.P. Draw the projections of the solid when the apex is towards the observer. [10+15]

4. A Cylinder 65 mm diameter and 90 mm long, has its axis parallel to the H.P. and inclined at 30^0 to the V.P. It is cut by a vertical section plane in such a way that the true shape of the section is an ellipse having the major axis 75 mm long. Draw its sectional front view and true shape of the section. [25]

5. Draw the isometric projection of a cone of 30 mm diameter, height 40 mm placed centrally on the top face of truncated square pyramid of top face side 40 mm and bottom face side 50 mm with the height of 50 mm. [25]

6. Draw the isometric view of the object whose front view and top view are as shown in Figure. **(**All dimensions are in mm). [25]

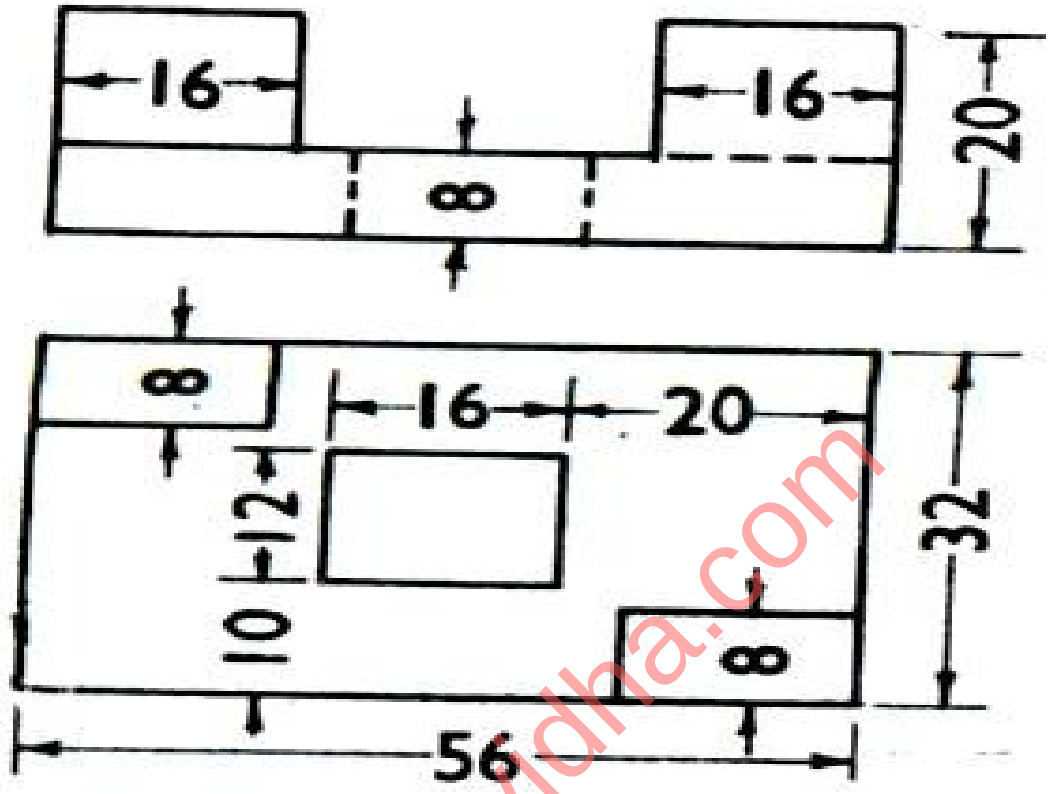

Figure: 2

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