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Vidya Jyothi Institute of Technology (Autonomous)

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Aziz Nagar, C.B.Post, Hyderabad -500075) **Subject code: A21301** **R18**

I B. Tech I SEM REGULAR EXAMINATION – DECEMBER 2018

ENGINEERING GRAPHICS AND MODELING

(CSE)

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

Note: This question paper contains two questions from each unit. Answer any one full question from each unit. Each question carries 15marks.

ANSWER ALLTHE QEUSTIONS **5QX15M=75M**

1. i) Draw a diagonal scale of RF = 1/24 to read yards, feet and inches, and up to 4 yards. Show on it, lengths representing: a) 2 yards 2 feet 10 inches b) 1 foot 3 inches. **15M**

OR

ii) Draw the involute of a circle of radius of 30 mm. Also draw a tangent and normal to the curve.

2. i) a). Draw the projection of following points. **5M**
   - Point A is 25 mm below HP and 35 mm infront of VP.
   - Point B is 35 mm above HP and in VP.
   - Point C is 15 mm behind VP & 30 mm below HP.
   - Point D is 30 mm in front VP & and on HP.
   - Point E is 32 mm behind VP and 25 mm below HP

   b) A line AB, 75 mm long, is inclined at 45° to the H.P. and 30° to the V.P. Its end A is 20mm above H.P. and 40 mm in front of the V.P. Draw its projections. **10M**

OR

ii) A line AB, 65 mm long has its end A 20 mm above the H.P. and 25 mm in front of the V.P. The end B is 40 mm above the H.P. and 65 mm in front of the V.P. Draw the projections of AB and show its inclinations with the H.P. and the V.P.. **15M**

3. i) Draw the projections of a regular hexagon of 25 mm side, having one of its sides in the H.P. and inclined at 60° to the V.P., and its surface making an angle of 45°with the H.P **15M**

OR

ii) Draw the projections of a cone, base 50mm diameter and axis 60mm long, when it is resting on the ground on a point of its base circle with the axis making an angle of 30^0 with the H.P. and top view of the axis making 45^0 with the V.P. **15M**

4. i) A cone with 50 mm base diameter & 70 mm long axis is resting on its base on H.P. It is cut by a plane making 45^0 with H.P. and perpendicular to VP & passing through a point on the axis, 30 mm from the apex. Draw its projections, sectional top view & also true shape of the section.**15M**

OR

ii) A pentagonal prism of base edge 25 mm and height 50 mm rests on its base on the ground with one of its base edges being perpendicular to the VP. It is cut by a section plane making 30^0 with H.P and passing through a point on axis 25mm above the base. Draw the development of the surface of the pyramid. **15M**

P.T.O

5. **i)** The orthographic views of an object are given in Fig 1. Draw the Isometric view (All dimensions are in mm). **15M**

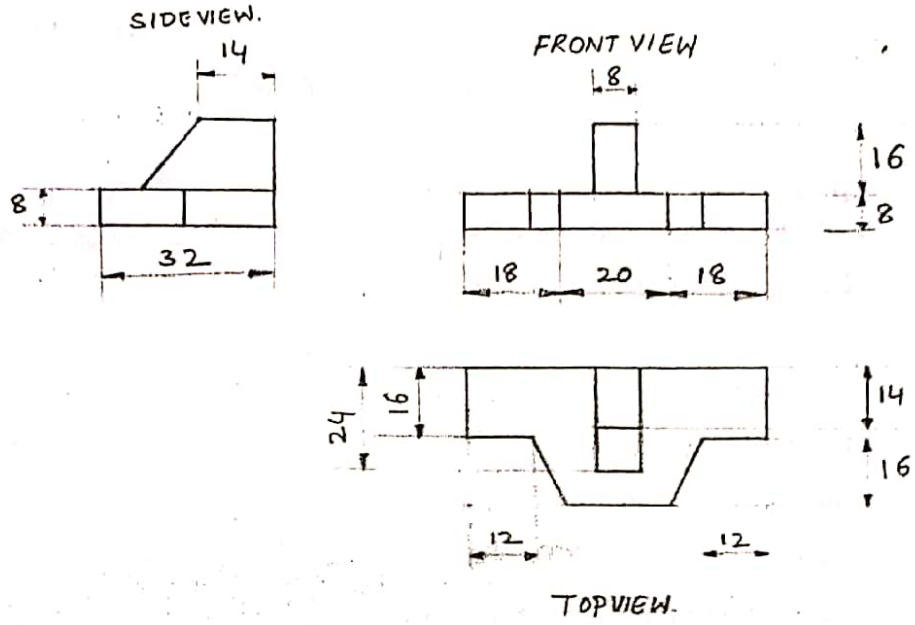
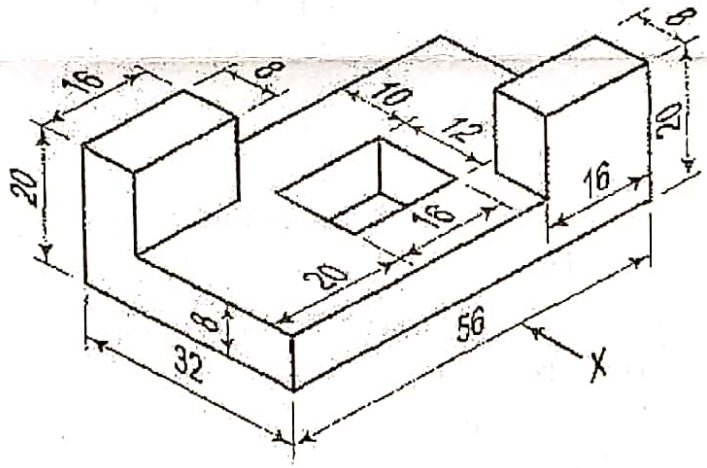


Fig 1

ii) . Draw the Front View, Top View and right side views of the part shown in the figure 2. **15M**



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