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Total No. of Pages: 02
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# B. TECH (Sem.-1<sup>st</sup>, 2<sup>nd</sup>) ENGINEERING DRAWING & COMPUTER GRAPHICS

Subject Code: ME-102 Paper ID: [A0125]

Time: 3 Hrs. Max. Marks: 60

#### INSTRUCTIONS TO CANDIDATE:

- 1. Section-A is compulsory. Each question carry two marks.
- 2. Section-B Attempt any four questions. Each question carry five marks.
- 3. Section-C Attempt any two questions. Each question carry ten marks.

## **SECTION-A**

- **Q. 1.** Write short notes on the following:
  - (a) What is mean by representative fraction?
  - (b) What is single stroke and double stroke letters?
  - (c) Explain the concept of different quadrants with the help of neat sketch.
  - (d) What is sectional view? Why sectional views are used in drawing?
  - (e) Define the concept of true length of lines.
  - (f) Differentiate right and oblique solids.
  - (g) What is cutting plane?
  - (h) What do you mean by development of surfaces?
  - (i) What is the principle of Isometric projection?
  - (j) Why the layout of sheet is necessary?

#### **Section-B**

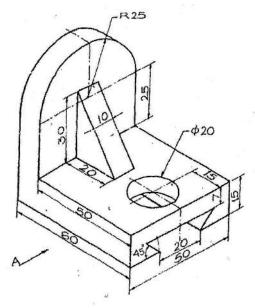
- Q. 2. Draw a diagonal scale of RF = 1/25 to read metres, decimeters and centimeters. The scale must be long enough to read 4 m. Mark off this scale distances of 2.34 m and 0.68 m.
- Q. 3. A straight line AB, 95 mm long has its end A 15 mm above HP and 10 mm in front of VP. The other end B is 65 mm above HP and 75 mm in front of VP. Draw the projections of the line.
- **Q. 4.** A hexagonal pyramid of base side 30 mm, axis length 60 mm is resting on HP on one of its triangular faces with its axis parallel to VP. Draw its projection.

- Q. 5. A right circular cone diameter of base 65 mm and height 75 mm has its base in the HP and it is cut by an inclined plane cutting the axis at an angle of 45° at a point 35 mm below the apex. Draw the plan, elevation and find the true shape of section.
- Q. 6. A frustum of a cone 30 mm as top diameter, 50 mm as bottom diameter and 60 mm long is placed vertically on a square slab of side 70 mm and 30 mm thick, such that both the solids have the common axis. Draw the isometric projection of the combination of solids.

## **Section-C**

- Q. 7. A pentagonal prism of 25 mm base edges and 50 mm long, is resting on its base with an edge of base at 45° to V.P. The prism is cut by a section plane inclined at 30° to H.P. and passes through a point 25 mm from the base along its axis. Develop the lateral surface of the truncated prism.
- Q. 8. A cone of base diameter 70 mm and height 80 mm is resting on HP on its base. It is penetrated by a cylinder of diameter 30 mm and the axis is parallel to both HP and VP.

  The axis of the cylinder is situated at a distance 20 mm above the base of the cone and 5 mm away from the axis of cone. Draw the curves of intersection of the solids.
- Q. 9. Figure given below shows the pictorial view of an object. Using first angle method, draw front view looking in the direction of A, top view and side view.



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