1271

Code : 15ME-21D

Register Number

ENGG. GRAPHICS – II

Time : 4 Hours | **[Max. Marks : 100**

Note :   (i)   Part – **A** is *compulsory*.

(ii)   Answer any **two** full questions each from Part – **B, C, D**

(iii)   All dimensions are in mm.

PART – A

1.   A pentagonal prism of 30 mm side of base and height 60 mm rests with one of its edges of the base on HP such that the axis is inclined at 30° to HP and parallel to VP. Draw the top and front views.   **10**

PART – B

2.   An equilateral triangular prism 20 mm side of base and 50 mm long rests with one of its shorter edges on HP such that the rectangular face containing the edge on which prism rests is inclined at 30° to HP. The edge on which the prism rests is inclined at 60° to the VP. Draw its projections.   **15**

3.   Draw the top and front views of a right circular cylinder of base 45 mm diameter and 60 mm long when it lies on HP, such that its axis is inclined at 30° to HP and the axis appears to be perpendicular to the VP in the top view.   **15**

4.   A cube of 30 mm edges rests with a square face on HP such that one of its vertical square face is inclined at 30° to VP. A section plane perpendicular to VP and inclined at 60° to HP passes through a point on the axis 5 mm below its top end. Draw its sectional top view, front view and the true shape of section.   **15**

PART – C

5. A cone, base 60 mm diameter and axis 70 mm stands vertically with its base on HP. The vertical trace of a section plane perpendicular to VP and parallel to one of the end generators of the cone, passes at a distance of 15 mm from it. Draw the sectional top view, front view and the true shape of section.   **15**

6. A square pyramid of 30 mm side of base and height 50 mm rests with its base on HP with one of the edges of the base parallel to VP. It is cut by a section plane perpendicular to VP and inclined at 45° to HP and bisecting the axis. Draw the development of the truncated pyramid.   **15**

7. A vertical cone 40 mm diameter of base and height 50 mm is cut by a section plane perpendicular to VP and inclined at 30° to HP so as to bisect the axis of the cone. Draw the development of the lateral surface of the truncated cone.   **15**

PART – D

8. An isometric view of an object is shown in fig.-1. Draw its front view, top view and right view.   **15**
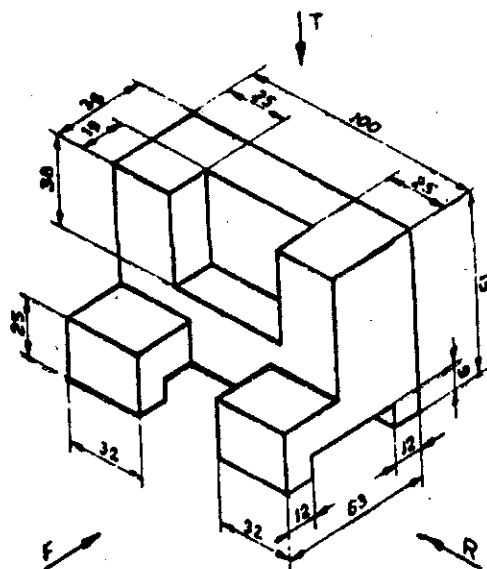
Fig. 1

9. Draw the isometric view of the object, whose orthographic views are shown in fig. 2. **15**
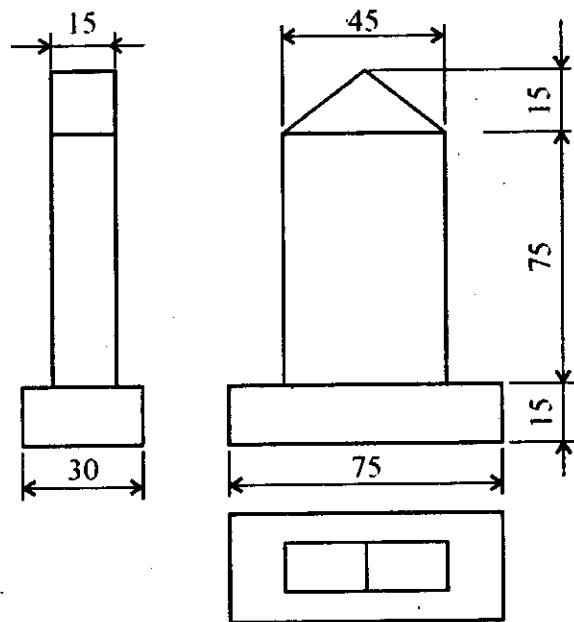
Fig. 2

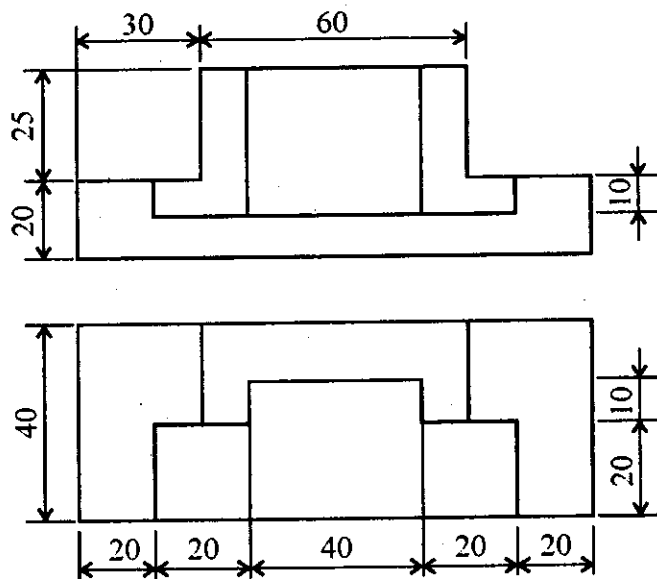10. Draw the isometric view of the object, whose orthographic views are shown in fig. 3. **15**

Fig. 3