1560

Code : 15ME-21-D

Register Number | | | | | | | |

II Semester Diploma Examination, April/May–2016

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 square prism of 30 mm sides of square faces and height 60 mm rests with one of its corners on HP such that the axis is inclined at 30° to HP and parallel to VP. Two of the base edges containing the corner on which the prism rests make equal inclinations with HP. Draw the top and front views. **10**

PART – B

2. A hexagonal pyramid, base 30 mm side and axis 60 mm long has one of its slant edges on HP such that two of its triangular faces containing the slant edge on which it rests are equally inclined to HP. The top view of the axis appears to be inclined at 45° to VP. Draw its projections, when its base is nearer to the observer than its apex. **15**

3. A cone of base 40 mm diameter and height 50 mm is lying with one of its generators on HP and the axis appears to be inclined to the VP at an angle of 40° in the top view. Draw its top and front views. **15**

4. A cone diameter of base 60 mm and axis 70 mm long is resting on its base on HP. It is cut by a section plane perpendicular to VP and inclined at 45° to HP. The vertical trace of the section plane passes through the axis at a point 40 mm above HP. Draw the sectional top view, front view and the true shape of section. **15**

PART – C

5. A square pyramid of 50 mm edges of base and height 70 mm rests on its base on HP with one of its base edges parallel to VP. It is cut by an auxiliary inclined section plane in such a way that the true shape of section is a trapezium whose parallel sides measures 40 mm and 20 mm. Draw the front view, sectional top view and the true shape of section. **15**

6. A pentagonal prism 20 mm side of base and 50 mm high stands vertically with one of its rectangular faces parallel to VP and nearer to it. The vertical trace of a section plane inclined at 60° to HP passes through one of the extreme corners of the top face of the prism. Develop the lower portion of the lateral faces of the prism so as to produce a one-piece development. **15**

7. A vertical cylinder of 40 mm diameter and 50 mm high is cut by a section plane perpendicular to VP and inclined at 45° to the axis so as to pass through the top end of the extreme generators in the front view. Draw the development of the lateral surface of the truncated cylinder providing a minimum length at the joint. **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**

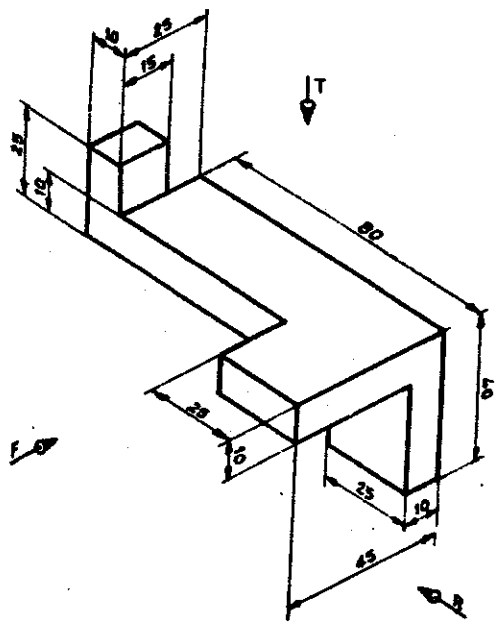

Fig. – 1

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

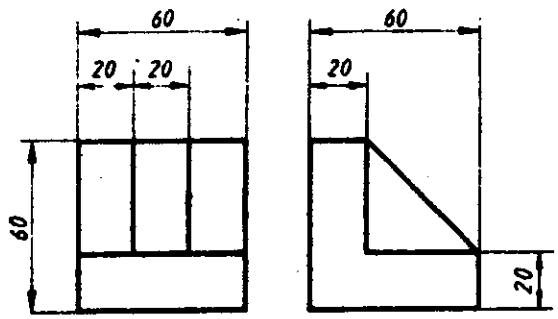

Fig. – 2

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

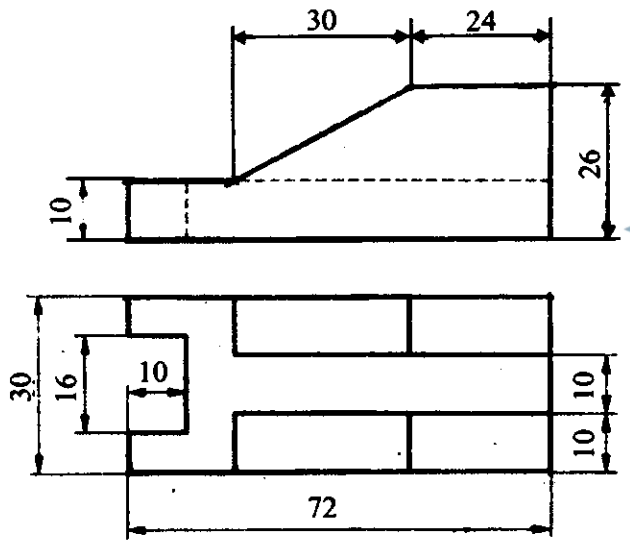

Fig. – 3