1330

Code : 15ME21D

Register Number | | | | | | | |

II Semester Diploma Examination, April/May-2018

ENGINEERING GRAPHICS – II

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

Note : (i) Part – **A** is *compulsory*.
(ii) Answer any **two** full questions from Parts – **B, C & D**.
(iii) All dimensions are in mm.

PART – A

1. Draw the top and front views of a cone of 60 mm diameter of base and axis 80 mm long lying on HP with its axis inclined at 45° to it and parallel to VP. **10**

PART – B

2. A cube of 30 mm sides rests on one of its edges on HP such that one of the square faces containing that edge is inclined at 30° to HP and the edge on which it rests being inclined at 60° to VP. Draw is projections. **15**

3. Draw the top and front views of a right 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 square prism of 45 mm side of base, height 90 mm rests with its base on HP such that one of the rectangular faces 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 at a height of 70 mm from the base. Draw the front view, sectional top view and true shape of the section. **15**

PART – C

5. A cone, base 60 mm diameter and axis 70 mm long is resting on HP on its base. It is cut by a section plane perpendicular to VP and inclined at 75° to HP, so as to cut the axis of the cone at a point 20 mm above the base. Draw its front view, sectional top view and the true shape of section. Name the curve of the true shape of section. **15**

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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 bisecting the axis. Draw the development of the truncated pyramid. **15**

7. A vertical cylinder of 80 mm diameter and 100 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 one 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. Draw the three principal views of the component shown in the Figure-1. **15**

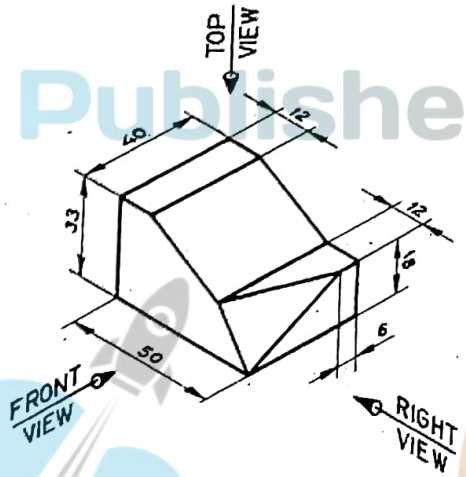

Figure – 1

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

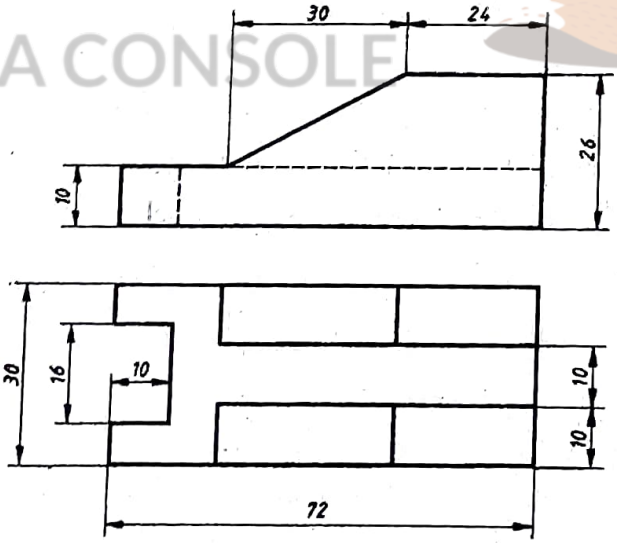

Figure – 2

10. A square pyramid of base edge 50 mm and height 80 mm rests on the top of cube of side 100 mm. Two sides of the base of the pyramid are parallel to the top edges of the cube. Draw the isometric view of the combination of solids. **15**