

C 26479

(Pages : 2)

Name.....

Reg. No.....

**COMBINED FIRST AND SECOND SEMESTER B.TECH. (ENGINEERING)  
DEGREE EXAMINATION, MARCH 2012**

EN 09 108 A—ENGINEERING GRAPHICS—A

(2009 Scheme)

[Common to B.Arch, AE, AN, AU, BT, EC EEE, IC PE, PT]

Time : Three Hours

Maximum : 70 Marks

*Answer three questions from Part A and any two questions from Part B.  
All questions carry equal marks.*

**Part A**

1. (a) A line EF, 75 mm. long has its end E, 25 mm. above the HP and 20 mm. in front of the VP. The line is inclined at  $50^\circ$  to the HP and  $30^\circ$  to the VP. Draw the projections of the line and find the traces of the line.

*Or*

- (b) A line AB, 90 mm. long, is inclined at  $30^\circ$  to the HP its end A is 12 mm. above the HP and 20 mm. in front of the V.P its front view measures 65 mm. Draw the top view of AB and determine its inclination with the V.P.
2. (a) A circular lamina of a diameter 80 mm. Has the end M of the diameter of MN in the HP and the lamina is inclined at  $30^\circ$  to the HP ? Draw its projections when:

The diameter MN appears to be inclined at  $40^\circ$  to the V.P. in the top view.

The diameter MN makes  $40^\circ$  with the V.P.

*Or*

- (b) A square prism of base 30 mm. and axis 50 mm. has its axis inclined at  $40^\circ$  to the ground. It has an edge of base parallel to the ground and inclined at  $30^\circ$  to V.P. Draw the projections of the prism.
3. (a) A pentagonal pyramid of base 35 mm. side and axis 60 mm. height is lying on the ground on its base with a base edge parallel to the V.P. It is cut by a plane perpendicular to the H.P and inclined at  $45^\circ$  to the V.P. and passing through a point 8 mm. away from the axis. Draw sectional elevation and add an auxiliary sectional view on a plane parallel to the section plane.

*Or*

- (b) Draw the development of T- Shaped pipe of diameter 30 mm.

(3 × 14 = 42 marks)

Turn over



## Part B

4. Draw the isometric projection of a funnel consisting of a cylinder and a frustum of a cone. The diameter of the cylinder is 20 mm. and the top diameter of the funnel is 68 mm. the height of the frustum and the cylinder are each equal to 40 mm.
5. A rectangular prism of base  $50 \times 30$  mm. and height 55 mm. lies on its base on the ground plane. A vertical edge touches the picture plane and one of the longer edges of its base is inclined at  $45^\circ$  to PP and behind it. The station point is 50 mm. in front of PP. 75 mm. above the ground plane and lies in central plane that passes through the centre of the prism. Draw the perspective view of the prism.
6. Draw the dimensioned orthographic views (all *three*) of the object shown in Fig. 1.

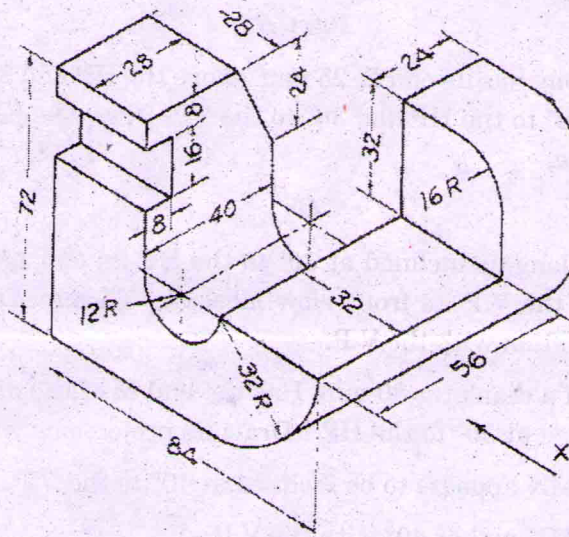


Fig. 1

(2 × 14 = 28 marks)