

Total No. of Questions-8]

[Total No. of Printed Pages-3

B.E. I Semester Examination

BE - I/12(A)

232934

ENGINEERING GRAPHICS

Course No .M - 106

Time Allowed- 3Hours

Maximum Marks-100

Note: Attempt any **Five** questions selecting atleast **One** question from each unit. Each question carries 20 marks.

UNIT I

1. a) i) Write in single stroke inclined style, the following statement using ratio 7:5 "ISOMETRIC PROJECTIONS"
- ii) A Point P is 20 mm below the HP and 30 mm in front of VP. Draw its projections.
- b) The projectors of the ends of a line EF are on the same projector. The end E is 15mm above the HP and 20mm in front of the VP. The end F is 45 mm above the HP and 50 mm in front of the VP. Draw the projections of the line and find its traces.
2. Draw the projection of a circular lamina which has 50mm as diameter and its plane vertical and inclined at 45° to the VP. Its centre is 40mm above HP and 60mm in front of VP.

UNIT II

3. A pentagonal Pyramid, side of base 20mm and axis 45mm long rests with one of its corners on HP, such that the base is inclined at an angle of 60° to HP and one side of base is perpendicular to VP, Draw its projections.
4. A hexagonal prism, side of base 30mm and axis 70mm long rests on the HP on one of its rectangular faces with its axis perpendicular to the VP. It is Cut by a vertical plane inclined at 30° to the VP. Draw the top view, sectional elevation and the true shape of the section.

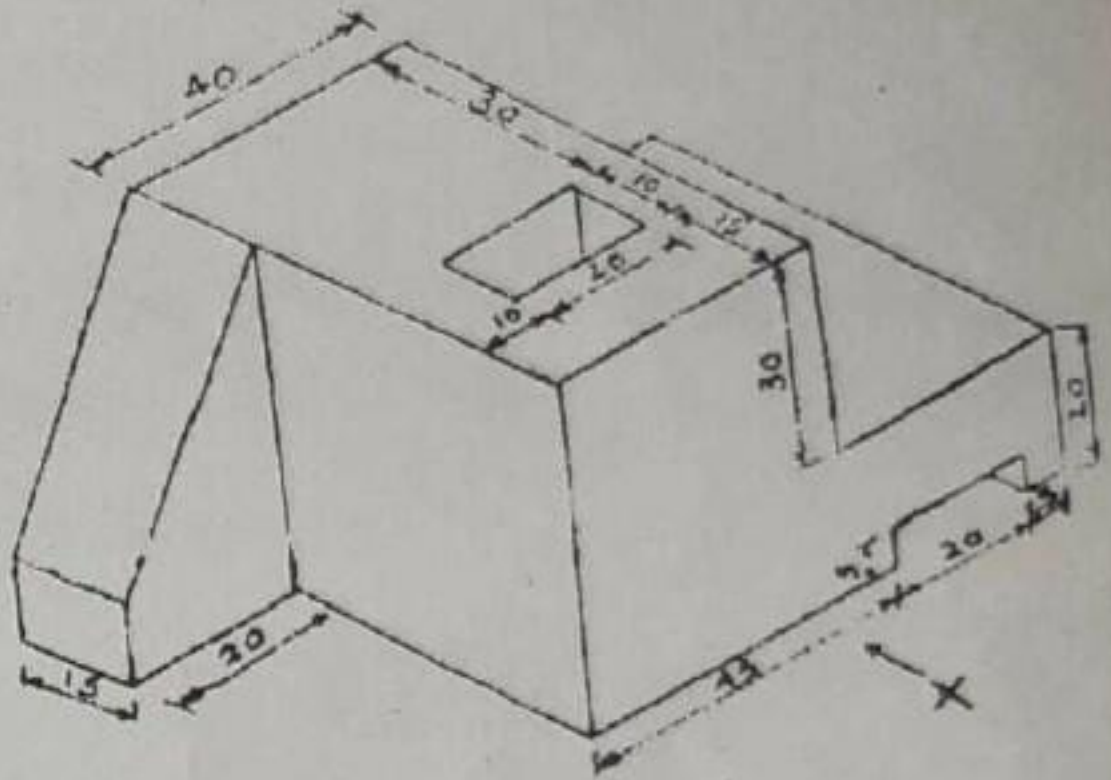
UNIT III

5. A right circular cone, diameter of base 50 mm and height 60. mm resting on its base in HP is completely penetrated by a cylinder of diameter 25mm and 70mm long. The axis of the penetrating cylinder is parallel to both HP and VP and Intersects the axis of the cone at a distance of 20mm from its base. Draw the projection of the solids showing curve of intersection.
6. A right regular square prism, side of base 25 mm and height 50 mm, rests on its base on FIP such that its vertical faces are equally inclined to the VP. A horizontal circular hole of diameter 30 mm drilled centrally through it such that the axis of the hole cuts the diagonally opposite vertically edges. Develop its lateral surface.

UNIT IV

7. The frustum of a square pyramid of sides 40mm and height 60mm rest on the top face of the square block of side 60mm and height 20mm. The base edges of the pyramid are parallel to the top face of the square block. Draw the isometric projection of the combination.

8. Draw the front View, top view and side view from the right of the figure shown in isometric view. All dimensions are in mm.



h h h