CE/ME 124 (R-22)

Total No. of Questions : 10] [Total No.of Pages : 02

I/IV B. Tech. DEGREE EXAMINATIONS, AUGUST - 2023

Second Semester

CE / ME

ENGINEERING GRAPHICS

Time : **Three Hours** Maximum : **70** Marks

Answer All Questions

Answer ONE question from each Unit. 5x14=70 M

UNIT - I

1. Draw an involute of a circle of 60 mm diameter. Also draw normal and tangent to it at point 100 mm from the centre of the circle.

(OR)

2. A shot is discharged from the ground level at an inclination of 30^o to the ground which is horizontal. The shot returns to the ground at a point 200 m from the point of discharge. Trace the path of the shot. Find the direction of the shot after it has travelled a horizontal distance of 180m (scale 1:2000).

UNIT - II

3. Draw the projections of a circle of 60 mm diameter having the end A of the diameter AB in the H.P., the end B in the V.P. and the surface inclined at 30^o to the H.P. and at 60^o to the V.P.

(OR)

4. A mid point of a line is 100 m long is 35 mm above HP and 30 mm in front of VP. The line is inclined at 30^o to the HP and 45^o to the VP. Draw the projection of the line.

UNIT - III

5. A hexagonal pyramid, base 40 mm side and axis 50 mm long, has an edge of its base on the ground. Its axis is inclined at 30^o to the ground and parallel to the V.P. Draw its projections.

(OR)

6. A cone of 55 mm diameter and 75 mm height is resting on the H.P. on one of its generators in such a way that, the generator is parallel to the V.P. It is cut by a plane parallel to the V.P. and inclined at 90^o to the H.P. and passing through a point 15 mm in front of its axis. Draw the sectional front view and the top view of the cone.

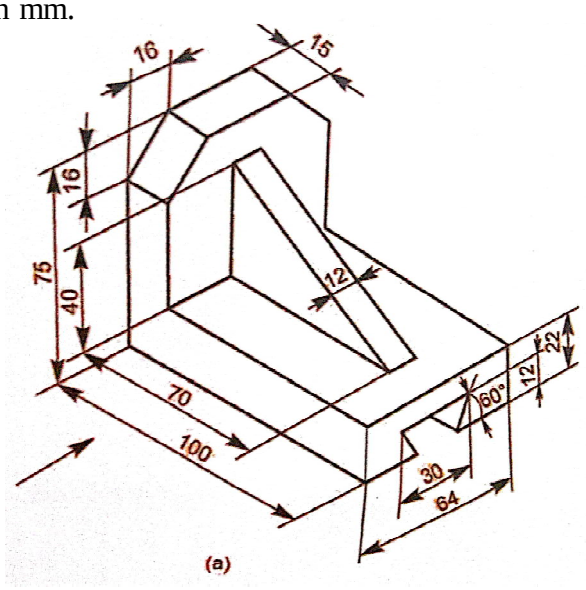
P.T.O.

UNIT - IV

7. The inside of a hopper of a floor mill is to be lined with tin sheet. The top and bottom of the hopper are regular pentagons with each side equal to 450 mm and 300 mm respectively (internally). The height of the hopper is 450 mm. Draw the shape to which the tin sheet is to be cut so as to fit in the hopper. Scale, 1:10.

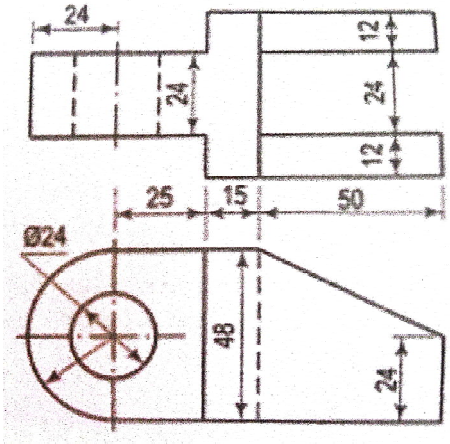
(OR)

8. Draw the front view, both side views and top view of the object as shown in figure below. All the dimensions are in mm.



UNIT - V

9. A hollow cylinder of 60 mm and 30 mm outside and inside diameter and 70 mm height stands vertically on a square prism of 100 mm side and 40 mm height. Draw the isometric projections of the two blocks.

(OR)

10. Draw the isometric view of the block, two views of which are shown in fig.