Reg. No. : ..... (Pages : 2) 1755

Name : .....

Combined First and Second Semester B.Tech. Degree Examination, June 2007
ENGINEERING GRAPHICS (CNPHTAB)
(2003 Scheme)

Time : 3 Hours Max. Marks : 100

Instruction: *Answer* ***two*** *questions from* ***each*** *Module.*

Module – 1

1. The actual length of 300 metres is represented by a line of 10 cm. on a drawing . Draw a backward reading vernier scale. Mark on the scale a length of 343 metres. **14**

2. A shot is discharged from the ground level at an angle of 60° to the horizontal. The shot returns to the ground, assumed to be horizontal, at a point 80 metres away from the point of discharge. Draw the path traced by the shot. Also draw the normal at any point on the curve. Name the curve. **14**

3. A point moves away from the pole and reaches a distance of 60 mm while moving around it once, its movement from the pole being uniform with its movement around it. Draw the curve traced out by the point. Draw a tangent and normal at a point M on the curve 30 mm from the pole. **14**

Module – 2

4. A line AB 120 mm long is inclined at 45° to the HP and 30° to the VP. Its midpoint is in VP and 20 mm above HP. The end A is in the third quadrant and B is in the first quadrant. Draw the projections of the line. Mark the traces of the line. **18**

5. A pentagonal pyramid edge of base 40 mm and height 60 mm resting on a corner of its base in such a way that the slant edge containing the corner makes an angle 60° with HP and 30° with VP. Draw its projections. **18**

P.T.O.

6. A cylinder of base 50 mm diameter and axis 75 mm long has a square hole of 25 mm side cut through it, so that the axis of the hole coincides with that of the cylinder. The cylinder is lying on the ground, with the axis perpendicular to VP and the faces of the hole equally inclined to the HP. A vertical section plane inclined 60° to the VP cuts the cylinder into two equal halves. Draw the sectional views of the cylinder and true shape of the section. **18**

Module – 3

7. Draw the development of the lateral surface of a right regular hexagonal pyramid of 40 mm side and height 80 mm it stands on the base on HP with one of its base edges parallel to VP. A circular hole 30 mm diameter is drilled through the pyramid in such a way that the axes of the hole is perpendicular to VP and 30 mm above the base. Assume the axes intersect each other. **18**

8. Draw the isometric view of a pentagonal pyramid side of base 40 mm and height 80 mm which rests with base centrally on a cylinder of diameter 120 mm and height 40 mm. **18**

9. A square prism side of base 30 mm and height 60 mm rests with its base on the ground such that the adjacent rectangular faces are equally inclined to PP and the vertical edge nearer to PP is 10 mm behind it. The station point is 45 mm infront of the PP, 90 mm above the ground plane and lies in a central plane which passes through the axis of the prism. Draw the perspective view. **18**
