[Total No. of Questions - 9] [Total No. of Printed Pages - 3]
(2063)

925

B.Tech 2nd Semester Examination

Engineering Graphics Drawing (OS)

ME-1001

Time : 3 Hours **Max. Marks : 100**

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/ continuation sheet will be issued.

Note : (i) A drawing Sheet is needed to attempt this question paper.

(ii) Attempt five questions in all, select one question from each sections A, B, C and D. Section E is compulsory.

SECTION - A

1. Construct a vernier scale of R.F. = 1/25 to read centimeters up to 4 meters and on it, show lengths representing 2.39 m and 0.91 m. **(20)**

2. A line AB. 90 mm long, is inclined at 45º to the MP and its top view makes an angle of 60° with the VP. The end A is in the HP and 12 mm in front of VP. Draw its front view and find its true inclination with the VP. **(20)**

SECTION - B

3. A pentagonal pyramid, base 25 mm side and axis 50 mm long has one of its triangular faces in the VP and the edge of the base contained by that face makes an angle of 60° with the HP. Draw its projections. **(20)**

4. A pentagonal prism (base 30 mm side; height 60 mm) is resting on a corner of its base on the ground with a longer edge containing that corner inclined at 30° to the HP and the vertical plane containing that edge and the axis inclined at 45° to the VP. Draw its projections. **(20)**

SECTION - C

5. A triangular pyramid, having base 50 mm side and axis 75 mm long, is lying on the ground on one of its faces, with the axis parallel to the VP. A section plane, parallel to the VP. cuts the pyramid at a distance of 10 mm from the axis. Draw the sectional front view and the top view. **(20)**

6. A right regular hexagonal prism, edge of base 30 mm and 60 mm long; lies on its rectangular face on the ground plane. A right circular cylinder of diameter 30 mm and 45 mm long, rests centrally on top rectangular surface of the prism. Draw the isometric view of the solids. **(20)**

SECTION - D

7. A right circular cone, diameter of base 45 mm and height 60 mm rests on its flat end on HP. The front view is cut by a plane passing through the mid-height point of the cone at an angle of 30° to the HP. Draw the development of surface of the cone. **(20)**

8. A vertical square prism, base 50 mm side, has a face inclined at 30° to the VP. It has a hole of 65 mm diameter drilled through it. The centre line of the hole is parallel to both the HP and the VP and is 5 mm away from the axis of the prism. Draw the projections of the prism. **(20)**

SECTION - E

9. Reply the following (Fill in the blanks/tick the right one/define/draw):

(a) Octahedron has equal_____ equilateral triangles as faces.

(b) Lower case letters are generally used in _____ drawings.

(c) Draw hatching or section lines.

(d) When the drawing is drawn of the same size as that of the object, the scale used is _____

(e) What is Representative Fraction (R.F.) of a scale.

(f) Oblique prisms and pyramids have their axis inclined to their _____

(g) When a cone is cut by planes at different angles, the curves of intersection are called _____

(h) Prisms and pyramids are named according to the shape of their _____

(i) The trace of a line is always a whereas _____ trace of a plane is always a _____

(j) A right circular cone is a solid generated by the revolution of a _____

(10×2=20)