[Total No. of Questions - 9] [Total No. of Printed Pages - 3]
(2068)

18030(M)

B. Tech 2nd Semester Examination

Engineering Drawing and Graphics (CBS)

ME-102

Time : 3 Hours **Max. Marks : 40**

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. Assume any missing data.

SECTION - A

1. Construct a Vernier scale to read meters, decamaters and centimeters and long enough to measure upto 7 meters when 1 meter is represented by 3 centimeters. Find RF and show on it, a distance of 7.33 meters. (8)

2. A line AB, 80 mm long is inclined at 60° to the Horizontal Plane (HP) and its top view makes an angle of 45° with the Vertical Plane (VP). The end A is in the HP and 10 mm on front of VP. Draw its front view and find out its inclination with the VP. Also draw the traces of line. (8)

SECTION - B

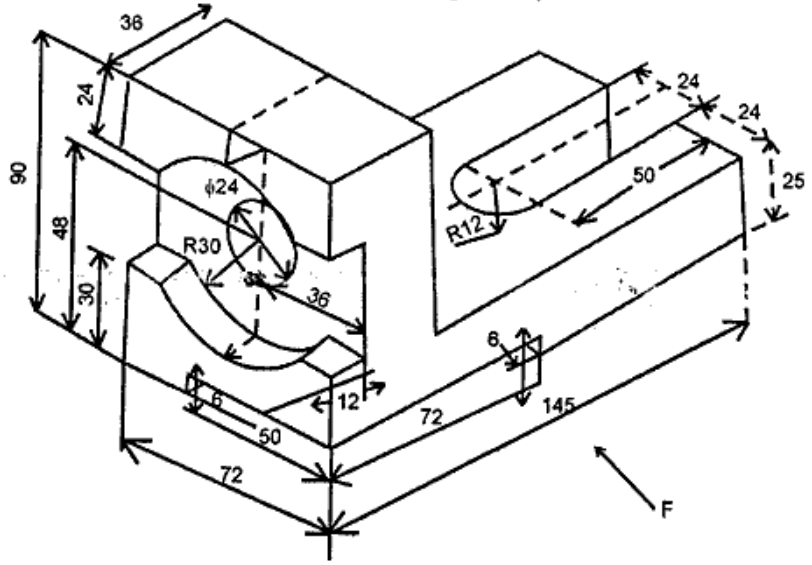
3. Draw the projections of a cube 40 mm when it is resting on one of its corners in such a way that the base makes an angle of 45° with V.P. and the vertical edges of the cube remain parallel to V.P. (8)

4. Draw the top view and front view of the pentagonal prism, edge of base 25 mm and 48 mm long, having one of its base edges perpendicular to V.P. (8)

SECTION - C

5. A right circular cone, diameter of base 40 mm and height 55 mm rests on its flat end on H.P. 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. (8)

6. Draw the orthogonal view from the given isometric diagram (F in diagram means front viewing side): (8)



SECTION - D

7. A right circular cone, diameter of base 40mm and height 65mm rests on its flat end on H.P. The front view is cut by a plane passing through the mid-height point of the cone at an angle of 45° to the H.P. Draw the development of surface of the cone. (8)

8. A cylinder, 80 mm diameter of base and 100 mm height is centrally penetrated by a cone, 60 mm of base and 75 mm height. The axis of cylinder which is vertical, cuts the axis of the cone which is horizontal at 40 mm from the base of the cone. Draw the front view and side view showing the curves of penetration. (8)

SECTION - E

9. Briefly answer the following or fill in the blanks :

   (a) Oblique prisms and pyramids have their axis inclined to their_____.

   (b) When a cone is cut by planes at different angles, the curves of intersection are called_____.

   (c) When a cylinder is cut by a section plane inclined to the axis, the true shape of the section is_____.

   (d) The ratio of the length of the drawing of the object to the actual length of the object is known as_____.

   (e) When the measurements required are in three units_____or _____ scale may be used.

   (f) What is meant by traces of a line?

   (g) A circle in isometric projection appears as_____.

   (h) In the first angle projection we assume the object to be situated in front of the _____ and above the _____ plane. (8×1=8)