Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐

Total No. of Pages : 02

Total No. of Questions : 18

B.Tech. (Aeronautical Engg./Aerospace Engg./
Automobile Engg./BT/CE/CSE/Electrical & Electronics
Engg./EE/ECE/Electronics & Electrical Engg./IT/ME/Textile Engg.)
(Sem.–1,2)
ENGINEERING DRAWING
Subject Code : BTME-102
M.Code : 54102

Time : 3 Hrs.   **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION - B & C have FOUR questions each.**
3. **Attempt any FIVE questions from SECTION B & C carrying EIGHT marks each.**
4. **Select atleast TWO questions EACH from SECTION - B & C.**

SECTION–A

Answer briefly/Fill in the blanks :

1) Define representative factor in scales.

2) What are uses of diagonal scale?

3) Differentiate between long break lines and short break lines used in engineering drawing.

4) What information does title block of the drawing sheet contain?

5) What are the standard sizes of drawing sheets according to BIS and which is suitable for drawing work?

6) Give the practical applications of the intersection of surfaces or interpenetration of solids.

7) A straight line will represent its true length in that plane to which it is ………… (perpendicular/parallel).

8) The intersection of the plane with V.P. is called its …………

9) An oblique solid is one which has its ………… to its base.

10) The development of the sphere is carried out ………… and ………… methods.

SECTION-B

11) Draw the projections of the line LM, 40 mm long parallel to V.P. and inclined to HP. 40°, when one of its ends is 25 mm away from H.P. and 15 mm away from V.P.

12) The projectors of the line AB are 60 mm apart. End A is 25 mm above HP and 30 mm in front of VP. End B is 35 mm above HP and 45 mm in front of VP. Find the true length of the line using auxiliary plane method. Also find the inclinations of the line with HP and VP.

13) A regular pentagonal lamina of 25 mm side has one side on the ground. Its plane is inclined at 45° to the HP and perpendicular to the VP. Draw its projections of the lamina.

14) A cone of 45 mm base and axis height 60 mm rests on a point on HP with its base inclined at 30° to HP and the plan of the axis is inclined at 45° to VP. Draw the projections of the solid.

SECTION-C

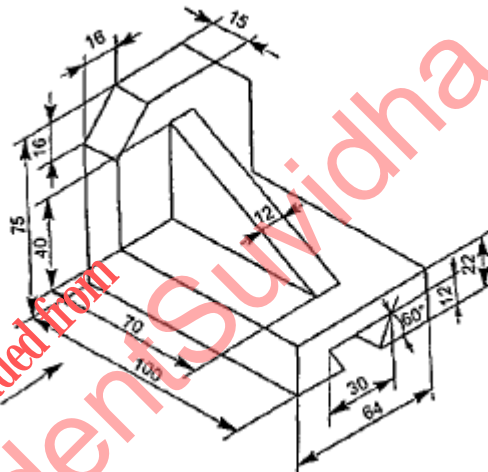15) Draw the orthographic Projections (front, top and right side view) of the engineering object shown below :

FIG.1

16) Draw the isometric projections of the sphere of 30 mm diameter resting centrally on top of a cube of edge 40 mm.

17) A cone of base diameter 50 mm and axis length 75 mm, resting on HP on its base is cut by a plane inclined at 45° to HP and perpendicular to VP and is bisecting the axis. Draw the front view and sectional top view and true shape of this section.

18) A hexagonal prism is placed on the HP such that one of the edges of its base is parallel to the VP. The height of the prism is 50 mm and its base edge is 30 mm. A cutting plane inclined at 45° to the HP, passes through one of the corners at the top face of the prism. Draw the lateral development of the prism below the cutting plane.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.