Roll No. | | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Tech. (Sem.–1, 2)

ENGINEERING GRAPHICS AND DESIGN

Subject Code : BTME-101-121

M.Code : 91335

Date of Examination : 27-01-2023

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 from SECTION - B & C.**

SECTION-A

l. Write short notes on :

a) Differentiate between Frustum and Truncated Solid.

b) Differentiate between Isometric Projections and Isometric View.

c) Explain with the help of an example the Unidirectional system of placement of dimensions.

d) What is difference between plane scale and diagonal scale?

e) Explain the types of Dimensions with a suitable drawing.

f) Define primary and secondary planes.

g) Give examples (with suitable drawing) of solids of revolution.

h) Show by means of traces, a plane perpendicular to HP and inclined to VP.

i) Write the following statement using single stroke capital vertical letters of 12 mm size:

''LABORATORY IS A TEMPLE WHERE SEARCH FOR TRUTH IS MADE''

j) Draw a regular Hexagonal Lamina of side 45mm.

SECTION-B

2. Construct a Plain Scale of R.F.=l/50 to read meters and decimeters and long enough to measure up to 8m. Show 7.4m and 4m 5dm on the scale.

3. A point "M" is 31mm behind of VP and 54 mm below HP. Draw its projections and find out its shortest distance from the reference line.

4. A line CD, 60 mm long, has its end 'C' in HP and 15 mm in front of VP. The line is inclined at 45° to the HP and 30° to the VP. Draw its projection when the end 'D' is in first quadrant. Also find its HT and VT.

5. Line "AB" is lying on profile plane. Its end "A" is 44mm in front of VP & 12 mm above HP and end "B" is 8mm in front of VP & 52mm above HP. Draw its projection and find, True Length, inclinations with the principle planes, HT and VT.

SECTION-C

6. A regular hexagonal thin plate of 45mm side has a central circular hole of 45mm diameter at its center. It is resting on one of its corners in HP. Draw its projections when the plate surface is vertical and inclined to VP at 30°.

7. A cone of base rim diameter 45mm and axis 65 mm lying on HP on a point of its circumference such that the generator is perpendicular to HP. Draw its projections assuming the cone lying in first quadrant.

8. A right regular square pyramid of base edge 42mm and axis 65 mm long; rests on its base on HP with its base edges equally inclined to VP. Draw its projections assuming the pyramid in 1st quadrant.

9. A cube of 25 mm edge is placed centrally on the top of another square block, of 40mm edge and 15mm thick. Draw the isometric drawing of the two solids.

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