Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐

B. Tech (Sem.-1ˢᵗ & 2ⁿᵈ)
Engineering Drawing
Subject Code: BTME-102
Paper ID: [A1110]

Time: 3 Hrs.   Max. Marks: 60

INSTRUCTIONS TO CANDIDATE:

1. Section-A is compulsory consisting of TEN questions carrying TWO marks each.

2. Attempt any five questions from Section B & C together selecting at least two from each Section.

SECTION-A

Q1. a) What is Gothic Lettering? Write free hand the following words in gothic lettering. "SYSTEM OF DIMENSIONING" with the help of a sketch?

b) Show the aligned system of Dimensioning with the help of sketch.

c) Draw the symbols of 1ˢᵗ Angle and IIIʳᵈ Angle of projections?

d) What is a diagonal scale and what is its principle?

e) Draw the continuous thick and continuous thin lines and their use?

f) What do you mean by a reducing and enlarged scale?

g) Show with the help of sketch the isometric scale.

h) Draw the frestom of a cone?

i) Differentiate between a prism and a pyramid show it with the help of suitable sketches.

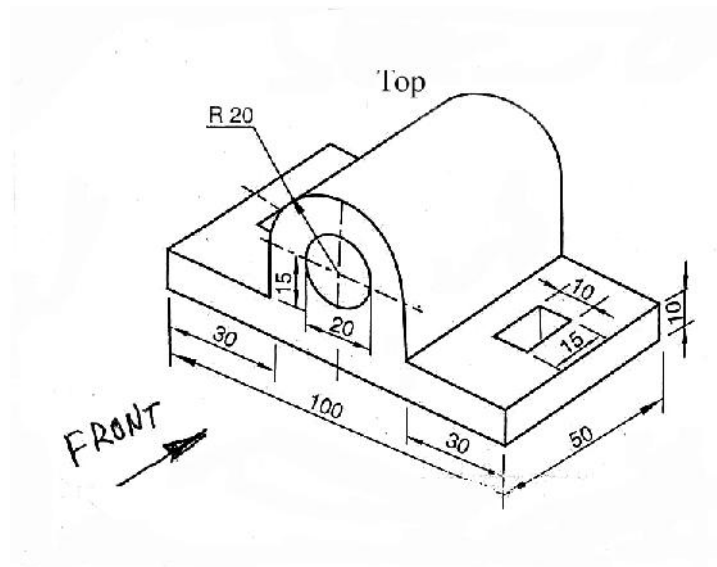j) Name the two auxiliary planes and their difference with the principal planes.

SECTION-B

Q2. Construct a diagonal scale to read up to 1/100 of kilometers having given the value of RF=1/50,000 and to measure up to 8 kilometers. Indicate on scale a distance of 6.76 kilometers.   (8)

Q3. Draw the projections of the following points.

(i) Point 'A' 30 mm in front of VP and 40mm above HP

(ii)Point 'B' 35mm behind VP and in HP   (8)

Q4. A line 50mm long is inclined at angle of 45° with HP and parallel to VP. Draw the projections of the line and determine its trace when the end A is 20mm in front of V.P. and 10mm above HP   (8)

Q5. Draw the projections of a square lamina of 25mm side, the plane of which is inclined at 30° to HP and one diagonal is horizontal.   (8)

SECTION-C

Q6. A cylinder of 40mm diameter and 60mm long is lying in such a way that its axis makes an angle of 30° with VP. It is cut by horizontal sectional plane perpendicular to VP at a distance of 10mm from the axis. Draw the sectional plan of the cylinder.   (8)

Q7. A square pyramid of 25mm side of base and 60mm height, is resting on its base. A sectional plane making an angle of 60° with HP and cutting its axis at a height of 40mm from the base. Develop the truncated cone.   (8)

Q8. A cube of 40mm side rests centrally on a square block of 60mm edges and 20mm thick. Draw the isometric projection of the two objects with the eadges of the two block kept mutually parallel to each other.   (8)

Q9. Draw the front view in the direction of arrow and its top view of the object shown below. All dimensions are in mm.   (8)

---:END:---