SET-1

## I B. Tech II Semester Supplementary Examinations, March- 2022 ENGINEERING DRAWING <br> (Com. to All Branches)

Time: 3 hours
Max. Marks: 75

Answer any FIVE Questions<br>All Questions carry Equal Marks

1. a) A plot of ground is in the shape of a rectangle 110 m X 50 m . Inscribe an elliptical lawn in it. Take a scale of $1: 1000$.
b) A distance of $1,000 \mathrm{~km}$ is to be represented by a length of 200 mm . Draw a diagonal scale that can be read up to a single kilometer and that is long enough to measure 700 km . Mark off 657 and 343 km .
2. a) Two points A and B are in the HP. The point A is 30 mm in front of the VP, while $B$ is behind the VP. The distance between their projectors is 70 mm and the line joining their top views makes an angle of $40^{\circ}$ with $x y$. Find the distance of the point B form the VP.
b) A line EF 40 mm long is in VP and inclined to HP. The top view measures 30 mm . The end E is 10 mm above HP. Draw the projections of the line. Determine its inclination with HP.
3. A line $A B$ has the end A 10 mm in front of VP \& 20 mm above HP and end B 55 mm in front of VP and 50 mm above HP. Distance between end projectors is 50 mm . Draw the projection of line \& determine its true length (TL), true inclinations $\phi, \theta$. Also locate the midpoint of the line on projections and TL.
4. A thin circular plate of 50 mm diameter is resting on point A on its rim, with the surface of the plate inclined at $45^{\circ}$ to the HP , and the diameter through A is inclined at $30^{\circ}$ to the VP. Draw the projections of the plate.
5. a) A cylinder of diameter 35 mm and axis height 55 mm is resting on the ground on its base. It is then tilted such that a solid diagonal is vertical. Draw its projections.
b) A pentagonal prism of 30 mm side of base and 70 mm height, resting on the H.P. Draw its projections.
6. a) A hexagonal pyramid of side of base 30 mm and axis length 65 mm rests on one of its slant edge on the H.P. such that the plane containing that slant edge on which it rests on H.P. Draw the projection of it.
b) Draw the projections of a tetrahedron with 65 mm long edges lying on a face in the HP. and an edge of the face is perpendicular to the VP.

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7. Figure shows the pictorial view of a machine component. To a suitable scale draw front view looking arrow X and a top view.


Figure
8. The front and top views of an object are shown in figure. Draw its isometric view.


Figure
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