

First/Second Semester B.E. Degree Examination, Feb./Mar. 2022
ENGINEERING GRAPHICS

Time: 3 Hours
(COMMON TO ALL BRANCHES)
Max. Marks: 100

## Note:

1. Answer three full questions.
2. Draw to actual scale.
3. Use A4 sheets supplied.
4. Missing data, if any, may be assumed suitably.
5. A line $A B 100 \mathrm{~mm}$ long is inclined to $H P$ at $45^{\circ}$ and inclined to $V P$ at $30^{\circ}$. The end $A$ touches both HP and VP. Draw the front and top views of line and determine their lengths. Also determine the perpendicular distance of end B from both HP and VP. 25 Marks

## OR

1. A square plate of 40 mm sides rests on HP such that one of the diagonals is inclined at $30^{\circ}$ to HP and $45^{\circ}$ to VP. Draw its projections.

25 Marks
2. A hexagonal prism 25 mm sides of base and 50 mm axis length rests on HP on one of its edges of the base. Draw the projections of the prism when the axis is inclined to HP at $45^{\circ}$ and VP at $30^{\circ}$.

45 Marks
3. A rectangular prism of base size $25 \mathrm{~mm} \times 40 \mathrm{~mm}$ and axis length 65 mm is resting on HP on its base with the longer side of base inclined at $30^{\circ}$ to VP. It is cut by a plane inclined at $40^{\circ}$ to HP and perpendicular to VP and passes through the extreme left corner of base. Draw the development of the lateral surface of the remaining portion of the prism.

30 Marks

## OR

3. A hemisphere diameter 70 mm is placed on the ground on its curved surface. A come base diameter 70 mm and height 70 mm is placed centrally on it. Draw the isometric projection of the combination.

30 Marks

