

Register No.: Name:

SAINTGITS COLLEGE OF ENGINEERING (AUTONOMOUS)

(AFFILIATED TO APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY, THIRUVANANTHAPURAM)

SECOND SEMESTER B.TECH DEGREE EXAMINATION (S, SEPT 2022)**(2020 SCHEME)**

Course Code : 20EST110

Course Name: Engineering Graphics

Max. Marks : 100

Duration: 3 Hours

Retain Construction lines. Show necessary dimensions.*(Answer any ONE question from each module, each question carries 20 marks)***MODULE I**

1. The top view of a 60mm long line PQ measures 50 mm, while the length of its front view is 40 mm. Its end P is in the VP and is 10 mm above the HP. Draw the projections of the line and its inclinations with HP and VP. (20)

OR

2. The front view of a line AB measures 60 mm and make an angle of 45° with XY. A is 10mm above HP and 20 mm in front of VP. The line is inclined 30° to HP. Draw projection of line AB, find its true length and inclination with VP and also locate its traces (20)

MODULE II

3. A square pyramid has its axis inclined at 45° to HP and the base edge on which it is resting on HP is inclined at 60° to VP. The length of edge of the base is 40 mm and height 60 mm. Draw the projections of the solid. (20)

OR

4. A hexagonal pyramid side of base 25 mm and axis 50 mm long rest with one of the corners of its base on HP. The axis is inclined at 30° to HP and the top view of the axis is inclined at 45° to VP. Draw its projections. (20)

MODULE III

5. A cone of 50 mm base diameter, axis 50 mm is resting on its base on the HP. It is cut by a section plane perpendicular to HP and 45° to VP at a distance 10 mm from the apex towards the observer. Draw top view, sectional front view and true shape of the section (20)

OR

6. A square pyramid of 20 mm side base and 40 mm height rest on its base. A cutting plane is making an angle of 45° with the HP and cutting the axis at a height of 25 mm from the base. Develop the truncated pyramid (20)

MODULE IV

7. A cone of 40mm base diameter and 60mm long is placed centrally on top of a square prism of 50mm side and 40mm high. Draw the isometric view of the combination. (20)

OR

8. A cylindrical slab of 60 mm base diameter and 50 mm thickness is resting on its base on HP. A sphere of diameter 40 mm is placed centrally on the top of the cylindrical slab. Draw the isometric view of the combination of solids. (20)

MODULE V

9. A square prism, side of base 40 mm and height 60 mm rests with its base on the ground such that one of its rectangular face is parallel to and 10 mm behind the picture plane. The station point is 30 mm in front of PP, 80 mm above the ground plane and lies in a central plane 45 mm to the right of the center of the prism. Draw the perspective view. (20)

OR

10. Draw three orthographic views with dimension of the object as shown in figure below. (20)


