Name : .....
Roll No: .....

MAR ATHANASIUS COLLEGE OF ENGINEERING,
KOTHAMANGALAM – 686 666

DEPARTMENT OF MECHANICAL ENGINEERING

SECOND SESSIONAL EXAMINATION DEC 2024
S1 Mechanical A-Batch

B24ME1TO1 ENGINEERING GRAPHICS

Time – $1\frac{1}{2}$ Hours **Max: 40 Marks**

Answer All Questions

1. A triangular pyramid base 40 mm side, axis 50 mm long is freely suspended from one of the corners of its base. Draw its projections when the axis as a vertical plane is parallel with the VP. [CO2] 10 Marks

2. A cone of base diameter 55 mm and axis 70 mm rests on its base on the ground. A section plane perpendicular to VP and inclined at 45^0 to HP cuts the cone meeting the axis at a height of 35 mm from the ground. Draw its front view, sectional top view and true shape of the section. [CO3] 10 Marks

3. A cone, base 50 mm diameter and axis 60 mm long is resting on its base on the HP. It is cut by a section plane perpendicular to the V.P, inclined to the H.P. and cutting the axis at a point 30 mm from the apex so that the true shape is an ellipse having largest major axis. Draw its front view, sectional top view and true shape of the section. [CO3] 10 Marks

4. A hexagonal prism, side of base 30 mm and axis 60 mm long is resting on its base on the ground with an edge of the base inclined at 20 degree to the VP. It is cut by a section plane perpendicular to the VP and inclined at 45 degree to the HP and intersecting the axis at a point 35 mm above the base. Draw the development of the lateral surface of the prism. [CO3] 10 Marks

VISION

Mentoring to Ensure Excellence

MISSION

- To facilitate comprehensive and integrated development of students by providing quality education that encourages sustainable practices
- To mould disciplined and socially committed engineers capable of assuming professional leadership upholding national integrity