

ANURAG Engineering College
(An Autonomous Institution)

I B.Tech I Semester Supplementary Examinations, Jan/Feb-2024

ENGINEERING GRAPHICS
(COMMON TO ECE & CSE)

Time: 3 Hours

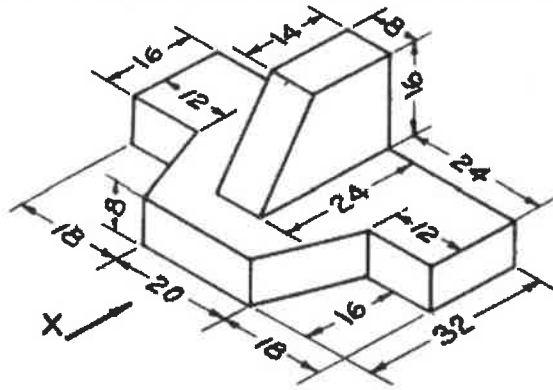
Max. Marks: 75

Answer all questions, each question carries equal marks.

5 X 15M = 75 M

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|---|-----|----|-----|
| <p>1. A) A circle of 50 mm diameter rolls on the circumference of another circle of 150 mm diameter & outside it. Trace the locus of a point on the circumference of the rolling circle for one complete revolution. Draw a tangent & normal to the curve at a point 85 mm from the centre of the directing circle</p> | CO1 | L3 | 15M |
| OR | | | |
| <p>B) Construct an ellipse when the distance of the focus from the directrix is equal to 80 mm and eccentricity is 3/5</p> | CO1 | L3 | 15M |
| <p>2. A) A line AB 25mm long is parallel to VP and perpendicular to HP. Point A is 35mm above HP and 20mm in front of VP. Point B is 10mm above HP. Draw the projections of the line AB.</p> | CO2 | L3 | 15M |
| OR | | | |
| <p>B) A regular pentagon of 30 mm sides is resting on HP on one of its sides while its opposite vertex (corner) is 30 mm above HP. Draw projections when side in HP is 30° inclined to VP.</p> | CO2 | L3 | 15M |
| <p>3. A) A pentagonal pyramid with side of base 25mm and axis 60mm long is resting on one of its faces on HP such that its axis is parallel to VP. Draw the projections</p> | CO3 | L3 | 15M |
| OR | | | |
| <p>B) Draw the projection of a tetrahedron of base side 30mm is kept such that a face is perpendicular to both HP and VP and one of its edges in HP and perpendicular to VP.</p> | CO3 | L3 | 15M |
| <p>4. A) A cylinder of diameter 40 mm and height 50 mm is resting vertically on one of its ends on the HP. It is cut by a plane perpendicular to the VP and inclined at 30° to the HP. The plane meets the axis at a point 30 mm from the base. Draw the development of the lateral surface of the lower portion of the truncated cylinder.</p> | CO4 | L3 | 15M |
| OR | | | |
| <p>B) Draw the development of the lateral surfaces of a square pyramid, side of base 25 mm and height 50mm, resting with its base on HP and an edge of the base parallel to VP.</p> | CO4 | L3 | 15M |

5. A) Draw the Front View, Top view & Both side views of the figure shown below. CO5 L3 15M



OR

- B) Draw the isometric view of the below solid block, shown in figure. All dimensions are in mm. CO5 L3 15M

