



MARRI LAXMAN REDDY

INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION)

(Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad)

Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section 2(f) & 12(B) of the UGC act, 1956

I B.Tech I Sem Supply End Examination, November 2020

ENGINEERING GRAPHICS

(CIVIL, MECH, ECE)

Time: 2 Hours.

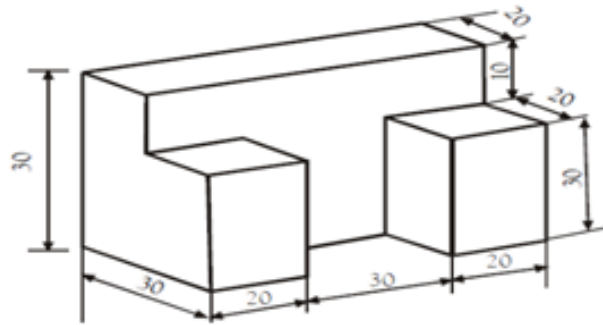
Max. Marks: 70

Note: 1. Answer any FIVE questions.

2. Each question carries 14 marks and may have a, b as sub questions.

- 1 a) Write the names of conic sections and briefly explain each of them. 7M
b) Draw a cycloid, given the radius 25 mm of the generating circle. 7M
- 2 Construct a cycloid, given the diameter of the generating circle as 40 mm. Draw tangent to the curve at a point on it, 35 mm from the line. 14M
- 3 Draw the projections of the following points, keeping the distance between the projectors as 25 on the same reference line: 14M
A- 25 above H.P. and 45 in front of V.P.
B- 45 below H.P. and on V.P.
C- on H.P. and 35 in front of V.P.
D- on H.P. and 25 behind V.P.
E- on both H.P. and V.P.
- 4 A pentagonal prism of side of base 25 mm and axis 40 mm long, is resting on H.P. on a corner of its base. Draw the projections of the prism, when the base is inclined at 60° to H.P. and the axis appears to be inclined at 30° to V.P. Follow the change of position method. 14M
- 5 a) A line AB of 70 mm long, has its end A at 10 mm above H.P. and 15 mm in front of V.P. Its front view and top view measure 50 mm and 60 mm respectively. Draw the projections of the line and determine its inclinations with H.P. and V.P. 7M
b) Differentiate the Prism and Pyramid with neat sketch. 7M
- 6 A cylinder of base 120 mm and axis 160 mm long is resting on its base on H.P. It has a circular hole of 90 mm diameter, drilled centrally through such that the axis of the hole is perpendicular to V.P and bisects the axis of the cylinder at right angles. Develop the lateral surface of the cylinder. 14M

- 7 a) A horizontal cylinder of diameter 40 mm penetrates into a vertical cylinder of diameter 60 mm. The axes of the cylinders intersect at right angles. Draw the curves of inter section when the axis of the horizontal cylinder is parallel to the VP. 7M
- b) Draw the isometric projection of a cone of base diameter 30 mm axis 45 mm long. Use the off-set method 7M
- 8 Draw the front, top, left side views of the given object. All dimensions are in mm. 14M



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