



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 II Sem Regular Examination, October/November 2020

ENGINEERING GRAPHICS

(EEE, IT)

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.

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| 1 | a) Construct a rectangular hyperbola when a point p on it is at a distance of 18 mm and 34 mm from two asymptotes. Also, draw a tangent and normal to the curve at a point 20 mm from asymptote. | 7M |
| | b) The distance between two stations is 200 km and its equivalent distance in map measures 10 cm. Draw a diagonal scale to indicate 223 km and 135 km. | 7M |
| 2 | A circle of 50 mm diameter rolls along a straight line without slipping. Draw the curve traced by the point P on the circumference, for one complete revolution of the circle. Name the curve draw the tangent to the curve at a point on it 40 mm from the line. | 14M |
| 3 | a) One end of a straight line AB is 20 mm above HP and 30 mm in front VP. The other end is 80 mm above HP and 70 mm in front VP. The distance between the end projectors are 60 mm apart. Draw the projections of the line & find its true length, true inclination with HP & VP | 7M |
| | b) A regular pentagon of 25 mm side has one side on the ground. its plane is inclined at 45° to the H.P. and perpendicular to the V.P. Draw its projections | 7M |
| 4 | A triangular prism, side of base 40 mm and length of axis 70 mm, is lying on one of its rectangular faces in HP. Its axis is parallel to both HP and VP. It is cut by section plane parallel to and at a distance of 20 mm from the HP. Draw its front view and sectional top view | 14M |
| 5 | a) A line AB 45 mm long is in H.P. and inclined to V.P the end A is 15 mm in front of V.P the length of the front view is 35 mm draw projections of the line, determine the inclination with V,P | 7M |
| | b) Draw the projections of a regular pentagonal prism of base 30 mm and axis 55 mm resting with its base on H.P such that one of the rectangular faces are perpendicular to V.P | 7M |

6 A cylinder 50 mm diameter and 70 mm axis is completely penetrated by another of 40 mm diameter and 70 mm axis horizontally, both axes intersect and bisect each other. Draw the projections showing curves of intersections 14M

7 a) Draw the development of the lateral surface of the cone of base 50 mm diameter and axis of 70 mm resting its base on H.P. Is cut by a sectional plane inclined at an angle of 45° with H.P and passing through 20 mm below the apex 7M
 b) Draw the Front view and top view of the given figure 1. 7M
 All dimensions are in mm

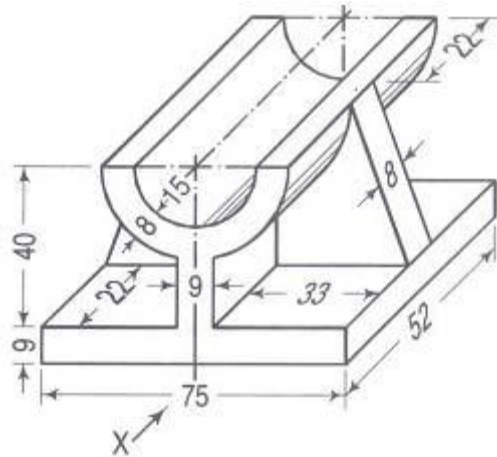


Figure 1

8 Draw isometric view of the figure 2. all dimensions are in mm 14M

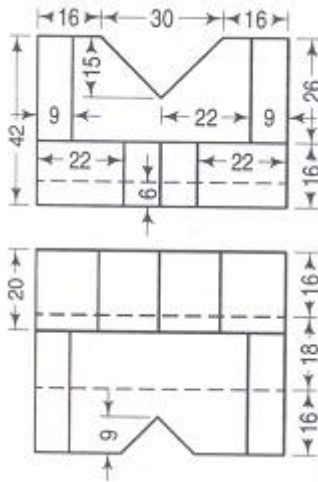


Figure 2

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