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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)

B.Tech I Year I Semester Regular Examinations January 2020

ENGINEERING GRAPHICS

(Common to CSE & CSIT)

Time: 3 hours

Max. Marks: 60

(Answer all Five Units 5 x 12 = 60 Marks)

UNIT-I

- 1 Construct an ellipse when the distance between the focus and the directrix is 50 mm and the eccentricity is $2/3$. Draw tangent and normal at a point 40 mm from the directrix. **12M**

OR

- 2 Draw a hypo cycloid of circle of 40 mm diameter which rolls inside another circle of 160 mm diameters for one revolution counter clock wise. Draw a tangent and a normal to each at point 65 from the centre of the directing circle. **12M**

UNIT-II

- 3 A line AB of 80 mm long as its end A 15 mm from both H.P and V.P. The other end B is 40 mm above H.P and 50 mm in front of V.P. Draw the projections of the line and determine the inclination of the line with H.P and V.P. **12M**

OR

- 4 A regular pentagon of 30 mm side is resting on one of its edges on H.P, which is inclined at 45^0 to V.P. Its surface is inclined at 30^0 to H.P. Draw its projections. **12M**

UNIT-III

- 5 A hexagonal prism side of base 25 mm and axis 50 mm long resting with one of its base corner on H.P such that its base makes an angle of 60^0 to H.P and its axis parallel to V.P. Draw its projections. **12M**

OR

- 6 A cone with base 60 mm diameter and axis 75 mm long, is resting on its base on H.P. It is cut by a section plane parallel to H.P and passing through the mid-point of the axis. Draw the projections of the cut solid. **12M**

UNIT-IV

- 7 A hexagonal prism side of base 30 mm and axis 75 mm long ,is resting on its base on H.P such that, a rectangular face is parallel to V.P. It is cut by a section plane, perpendicular to V.P and inclined at 30^0 to H.P. The section plane is passing through the top end of an extreme lateral edge of the prism. Draw the development of the lateral surface of the cut prism. **12M**

OR

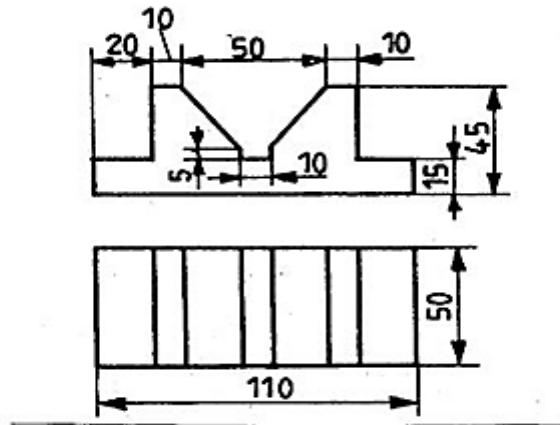
- 8 A vertical cylinder of 50 mm diameter and 70 mm axis is completely penetrated by another horizontal cylinder of 40 mm diameter and 70mm axis. Both axis intersect and bisect each other. Draw the projections showing curves of intersection. **12M**

P.T.O

UNIT-V

9 Draw the isometric view of the following sketch.

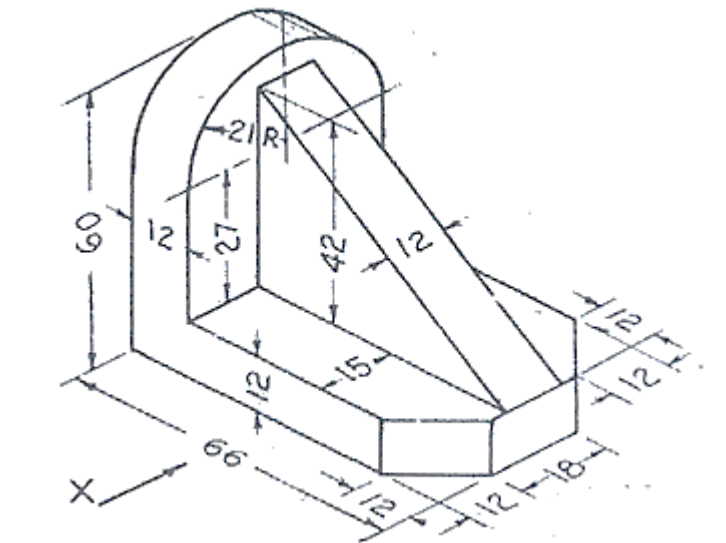
12M



OR

10 Draw three views of the blocks shown pictorially in figure according to first angle projection.

12M



*** END ***