Q.P. Code: 16ME302 **R16**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech I Year I Semester Supplementary Examinations December-2021

ENGINEERING GRAPHICS

(Common for ECE, CSE & CSIT)

Time: 3 hours Max. Marks: 60

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

UNIT-I

1 Construct an ellipse, with distance of the focus from the directrix as 50 mm and eccentricity as 2/3. Also draw normal and tangent to the curve ata point 40 mm from the directrix. **12M**

OR

2 **a** Draw the involute of an equilateral triangular of side 20 mm. **4M**

b Draw the involute of a circle of side diameter 50 mm. Draw a tangent and normal to the curve at a distance of 100 mm from the center of the circle **8M**

UNIT-II

3 Draw the projections of the following points, keeping the distance between the projectorsas 25mm on the same reference lines. **12M**

A – 20mm above HP and 30mm in front of VP

B – 20mm above HP and 30mm behind VP

C – 20mm below HP and 30mm behind VP

D – 20mm below HP and 30mm in front of VP

E – On HP and 30mm in front of VP

F – On VP and 20mm above HPG – Lying on both HP and VP

OR

4 A line AB of 100mm length is inclined at an angle of 30° to HP and 45° to VP. The point A is 15mm above HP and 20mm in front of VP. Draw the projections of the line. **12M**

UNIT-III

5 A semi circular plane of diameter 70mm has its straight edge on the VP and inclined at 30° to the HP.Draw the projection of the plane when its surface is inclined at 45° to VP. **12M**

OR

6 Draw the projections of a cone, base 30 mm diameter and axis 50 mm long , resting on HP on a point of its base circle with (a) the axis makingan angle of 45° with HP and its top view making an angle of 30° withVP. **12M**

UNIT-IV

7 A square pyramid of base 40 mm and axis 60 mm long, Its base lies on VP , with its axis parallel to HP. A cut sectional plan., 60° to VP and it pass 10mm away from the axis. Draw the projections sectional front view. **12M**

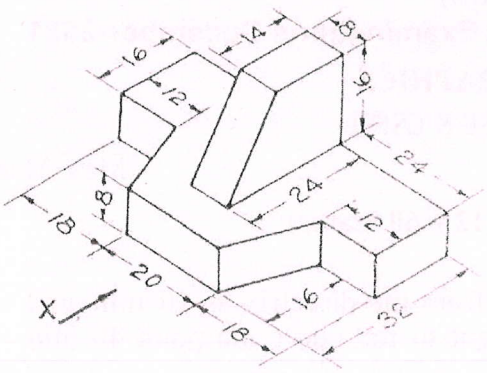
OR

8 A hexagonal prism of side of base 30 mm and length of axis 75 mm, is resting on its base on HP. It is cut by a section plane inclined 35° to HP and passing through top corner. Draw the front and sectional top views of the solid and true shape of the **12M**

section.

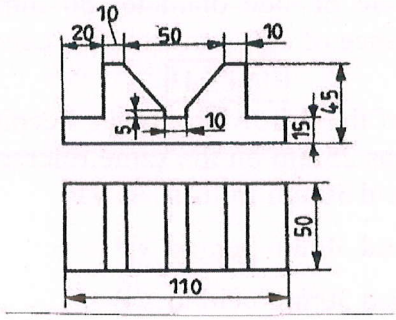
UNIT-V

9 Draw three views of the blocks shown pictorially in figure according to first angle projection. **12M**



OR

10 Draw the isometric view of the following sketch. **12M**



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