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

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

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech I Year II Semester Supplementary Examinations Dec 2019

ENGINEERING GRAPHICS

(CE, EEE, ME & AGE)

Time: 3 hours Max. Marks: 60

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

UNIT-I

1 Draw an ellipse(half ellipse by concentric circle method and half by rectangle method) having major axis is equal to 100 mm and the minor axis is equal to 70 mm. **12M**

OR

2 Draw an epi-cycloid of rolling circle of diameter 40 mm which rolls outside another circle (base circle) of 150 mm diameter for one revolution. Draw a tangent and normal at any point on the curve. **12M**

UNIT-II

3 Draw the projections of the following points, keeping the distance between the projectors as 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 HP.

OR

4 A line AB measures 80 mm long is inclined at an angle of 30^0 to HP and 45^0 to VP. The point A is 20 mm above HP and 30 mm infront of VP. Draw the projections of the line. **12M**

UNIT-III

5 A square plane ABCD of side 30mm is parallel to HP and 20mm away from it. Draw the projections of the plane, when two of its sides are (i) parallel to VP and (ii) inclined at 30^0 to VP (iii) inclined at 45^0 to VP. **12M**

OR

6 A pentagonal prism of base side 30mm and axis 60mm has one of its rectangular faces on the HP and the axis inclined at $60^0$to the VP. Draw its projections. **12M**

UNIT-IV

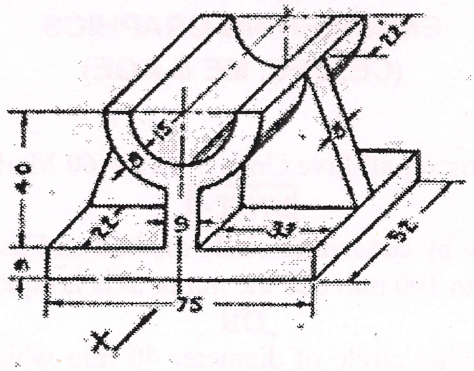
7 A square pyramid of base 40 mm and axis 60 mm long, Its base lies on VP, with its axis parallel to HP. A cut sectional plane, 60 degree to VP and it pass 10mm away from the axis. Draw the projections sectional front view. **12M**

OR

8 A cylinder of diameter of base 40 mm and axis 55 mm long is resting on its base on HP. It is cut by a section plane, perpendicular to VP and inclined at 45 degree to HP. The section plane is passing through the top end of an extreme generator of the cylinder. Draw the development of the lateral surface of the cut cylinder. **12M**

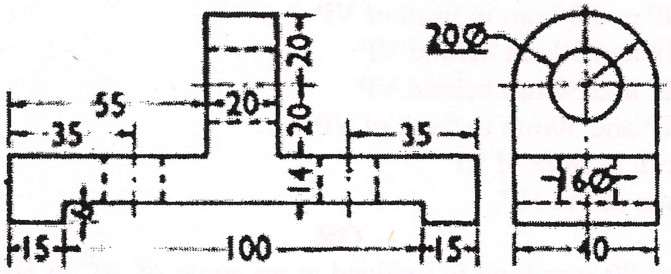
UNIT-V

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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