R18

Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech I Year II Semester Supplementary Examinations March-2021
ENGINEERING GRAPHICS& DESIGN
(Common to CE, AGE, ME & EEE)

Time: 3 hours   Max. Marks: 60

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

UNIT-I

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

OR

2 Draw a hypo cycloid of a circle of 50 mm diameter, which rolls inside another circle   **12M**
of 180 mm diameter for one revolution counter clockwise.

UNIT-II

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

OR

4 A line AB, 50mm long, has its end A away from the HP and VP than end B. The line   **12M**
is inclined to the HP at 30 degree and to the VP at 45degree. Draw the projections if
end A is 35mm above the HP and 50mm in front of the VP.

UNIT-III

5 An equilateral triangular plane ABC of side 40mm, has its plane parallel to VP and   **12M**
20mm away from it. Draw the projections of the plane when one of its sides is
(i) Perpendicular to HP (ii) Parallel to HP (iii) Inclined to HP at an angle of 45^0.

OR

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

UNIT-IV

7 A hexagonal prism of side of base 30 mm and length of axis 75 mm, is resting on its   **12M**
base on HP. It is cut by a section plane inclined35 degree to HP and passing through
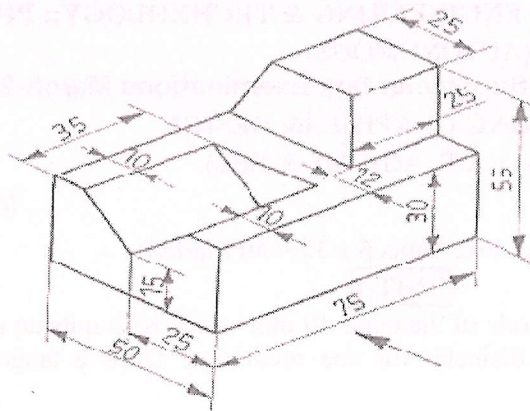top corner. Draw the front and sectional top views of the solid and true shape of the
section.

OR

8 A square pyramid of base 40 mm and axis 60mm long, Its base lies on VP, with its   **12M**
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.

UNIT-V

9 Draw the isometric view of a cone of base diameter 50mm and axis 60 mm. The cone   **12M**
has its base on (a) HP   (b) VP.

OR

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

*** END ***