

Reg. No:

--	--	--	--	--	--	--	--	--	--

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

B.Tech I Year I Semester Regular & Supplementary Examinations March-2023
ENGINEERING GRAPHICS

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 60

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

UNIT-I

- 1 a Construct an ellipse in a parallelogram having sides 120 mm and 80 mm long by using Rectangle method. CO1 L6 6M
- b Inscribe an ellipse in a parallelogram having sides 150 mm and 100 mm long and an included angle of 120°. CO1 L6 6M

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 and construct a tangent and normal at any point on the curve. CO1 L6 12M

UNIT-II

- 3 A line AB 50mm long, has its end A away from the HP and VP than end B. The line is inclined to the HP at 30° and to the VP at 45°. Draw the projections if end A is 35mm above the HP and 50mm in front of the VP. CO2 L1 12M

OR

- 4 End P of a line PQ 70mm long is 15mm above HP and 20mm in front of VP. Q is 40mm above HP. The top view of the line is inclined at 45° to VP. Draw the projections of the line and traces & find its true inclinations with VP and HP. CO2 L3 12M

UNIT-III

- 5 A semi circular plane of diameter 70mm has its straight edge on the VP and inclined at 30 degree to the HP. Draw the projection of the plane when its surface is inclined at 45° to VP. CO3 L6 12M

OR

- 6 A pentagonal pyramid of base edge 30mm and axis 60mm rests on an edge of its base in the HP. Its axis is parallel to VP and inclined at 45° to the HP. Draw its projections. CO3 L6 12M

UNIT-IV

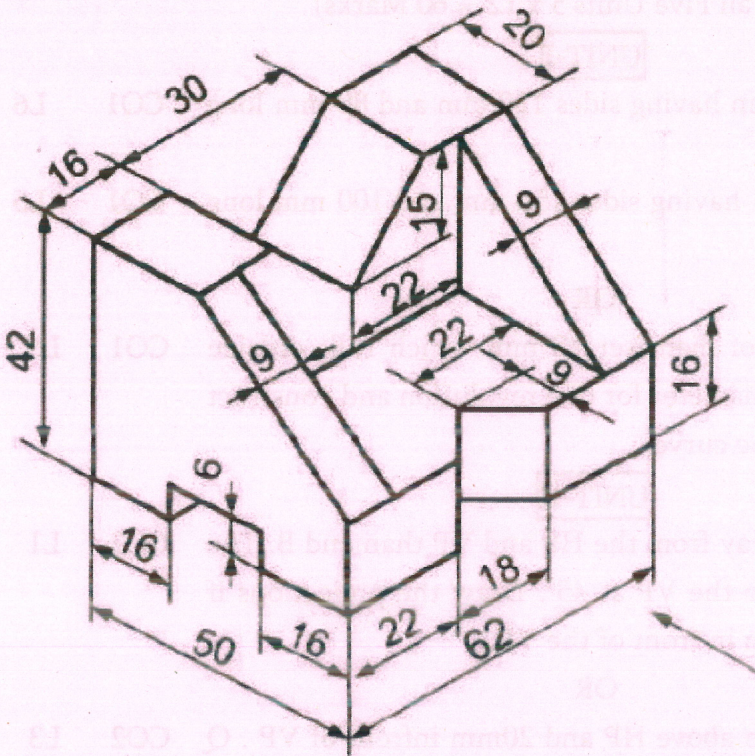
- 7 A cylinder of diameter of base 40 mm and axis 55 mm long, is resting on its base on HP. It is cut by a section plane, perpendicular to VP and inclined at 45° to HP. The section plane is passing through the top end of an extreme generator of the cylinder. Draw the development of the lateral surface of the cut cylinder. CO4 L1 12M

OR

- 8 A square pyramid, with side of base 30 mm and axis 50 mm long, is resting on its base on HP with an edge of the base parallel to VP. It is cut by a section plane, perpendicular to VP and inclined at 45° to HP. The section plane is passing through the mid-point of the axis. Draw the development of the surface of the cut pyramid. CO4 L1 12M

UNIT-V

- 9 Draw three views of the blocks shown pictorially in figure according to first angle projection. CO6 L6 12M



OR

- 10 Draw the isometric projection of the frustum of a hexagonal pyramid of base side 40 mm, top side 25mm, and height 70mm. The frustum rests on the HP. CO5 L1 12M

*** END ***