

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

B.Tech I Year II Semester Supplementary Examinations Decemebr-2025
ENGINEERING GRAPHICS

(Common to CE, ME, CAD, CSM, CCC, CIC, CAI & CIA)

Time: 3 Hours

Max. Marks: 70

(Answer all the Questions 5 x 14 = 70 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 at a point 40 mm from the directrix. CO1 L6 14M

OR

- 2 The vertex of a hyperbola is 60 mm from its focus. Draw the curve, if the eccentricity is $3/2$. Draw a normal and a tangent at a point on the curve, 75 mm from the directrix. CO1 L6 14M

UNIT-II

- 3 Draw the projections of the following points, keeping the distance between the projectors as 25mm on the same reference lines. CO2 L1 14M

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
G – Lying on both HP and VP

OR

- 4 A line NS 80mm long has its end N 10mm above HP and 15mm in front of VP. The other end S is 65mm above HP and 50mm in front of VP. Draw the projections of the line and Find its true inclinations with HP & VP. CO2 L3 14M

UNIT-III

- 5 A cube of 40mm side is resting with a face on H.P such that
i) vertical faces are equally inclined to V.P.
ii) one of its vertical faces is inclined at 30° to V.P.
Draw its projections. CO3 L6 14M

OR

- 6 Draw the projections of a hexagonal prism of base side 25mm and axis 60mm long, when it is resting on one of its corners of the base on H.P. The axis of the solid is inclined at 45° to H.P. CO3 L6 14M

UNIT-IV

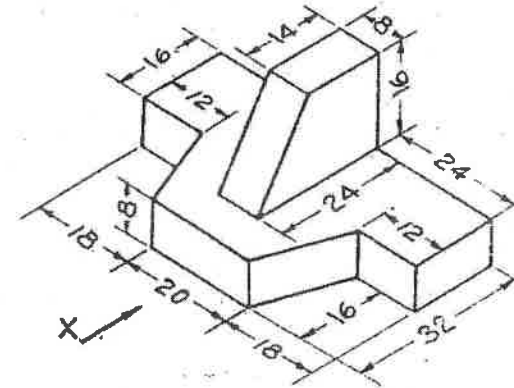
- 7 A pentagonal pyramid with edge of base 25 mm and axis 65 mm long, its base is resting on HP. It is cut by a section plane, inclined at 60° to HP and perpendicular to VP it bisects the axis. Draw the projections and obtain the true shape of the section. CO4 L6 14M

OR

- 8 A cone of base 50 mm diameter and height 65 mm rests with its base on HP. A section plane perpendicular to VP and inclined at 30° to HP bisects the axis of the cone. Draw the development of the lateral surface of the truncated cone. CO4 L1 14M

UNIT-V

- 9 Draw three views of the blocks shown pictorially in figure according to first angle projection CO6 L6 14M



OR

- 10 Draw the isometric view of a hexagonal prism of base side 30 mm and axis 70mm. The prism rests on its base on the HP with an edge of the base parallel to the VP. CO5 L1 14M

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