
I B.Tech (Sem-II) QUESTION BANK

Branch : EEE/ CIVIL

Sub: DRAWING

UNIT-1

- 1.(a) construct a plain scale of RF 1:50000 TO show kilometers and hectometers and long enough to measure upto 7 kilometers. Measure a distance of 54 hectometers on your scale(7 M)
(b) Draw an Octagon given the length of side 25mm (4M)
- 2.(a) the major axis of an ellipse is 100 mm long and the foci are at a distance of 15 mm from its ends. Find the minor axis . draw the ellipse by oblong method
(b) Construct a regular polygon of any number of sides, given the length of its sides equal to 25mm. (4M)
- 3.(a) construct an ellipse when the distance of the focus from the directrix is equal to 80mm and eccentricity is $\frac{3}{5}$ (b) construct a diagonal scale of RF =1/32 showing yards, feet and inches and to measure upto 4yards
4. The major axis of an ellipse is 150mm long and the minor axis is 100mm long. Find the foci and draw the ellipse by arcs of circles method. Draw a tangent to the ellipse at a point on it 25mm above the major axis.(16M)
5. (a) a plot of ground is in the shape of a rectangle 110 x50 M . inscribe an elliptical lawn in it. Take a suitable scale.
(b) The foci of an ellipse are 90 mm apart and the minor axis is 72 mm long. Determine the length of the major axis. Construct the ellipse. (7M)
6. (a) Construct an ellipse when the major axis is 120 mm and the distance between the foci is 108 mm. Determine the length of the minor axis. (7M)
(b) CONSTRUCT A vernier scale to read meters , decimeters and centimeters and long enough to measure upto 4 mt . RF of the scale is 1/20 MARK on your scale a distance of 2.28 mt(7M)

UNIT-II

- 1.(a) Draw the orthographic projections of the following points:
 - (i) A, 20mm above HP and 30mm behind VP
 - (ii) B, 25mm below HP and 25mm in front of VP
 - (iii) C, 25mm below HP and 30mm behind VP
 - (iv) D, 30mm below HP and in VP (7M)
- (b) The top view of a 75mm long line measures 55mm. The line is in the VP; it's one end being 25mm above the HP. Draw its projections. (7M)

2. (a) draw the projections of a 75mm long straight line in the following positions
 - (1) parallel to both HP VP and 25 mm from each
 - (2) perpendicular to the HP and 20 mm in front of the VP and its one end 15 mm above the HP
 - (3) inclined at 45° to the VP, in the HP and its one end in the VP
 (b) A point P is 20mm below HP and lies in the third quadrant. Its shortest distance from xy is 40mm. Draw its projections. (7M)
3. A line AB 50mm long is perpendicular to VP and parallel to HP. Its end A is 20mm in front of VP and the line is 40mm above HP. Draw the projections of the line.(16M)
 - (i) A, 25mm above H.P and 35mm in front of V.P
 - (ii) B, 25mm above H.P and 40 mm behind V.P
4. (a) A point 30 mm above xy line is the top view of two points P and Q. the front view of P is 45 mm above the HP while that of the point Q is 35 mm below the HP. Draw the projections of the points and state their positions with reference to the principal planes and their quadrants in which they lie
 (b) A vertical line AB 75 mm long has its end A in the HP and 25 mm in front of the VP. A line AC 100 mm long, it is in the HP and parallel to the VP. Draw the projections of the line joining B and C. and determine its inclinations with the HP
- 5 (a).Two pegs fixed on a wall are 4.5 metres apart. The distance between the pegs measured parallel to the floor is metres. If one peg is 1.5 m above the floor, find the height of the second peg and the inclination of the line joining the two pegs with the floor.
 (b) A 100 mm long line is parallel to and 40 mm above the HP. ITS two ends are 25 mm and 50 mm in front of the VP respectively. draw its projections and find its inclinations with the VP
6.
 - (a) A line PQ 40 mm long is parallel to VP and inclined at an angle of 30° to HP. The lower end P is 15 mm above HP and 20 mm in front of VP. Draw the projections of the line.(8M)
 - (b) Draw the projections of a line EF 40 mm long parallel to HP and inclined at 35° to VP. E is 20 mm above HP and 15 mm in front of VP.(8M)

UNIT-III

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1. The top view of a 75mm long line AB measures 65 mm, while the length of its front view is 50mm.ITS one end A is in the HP AND 12 mm in front of the vp. draw the projections of AB and determine the inclinations with the HP AND the VP(16M)
2. A line CD measuring 80 mm is inclined at an angle of 30° to HP and 45° TO VP. the point C is 20 mm above HP and 30mm in front of VP. Draw the projections of the straight line(16M)
3. A line AB is 75mm long. A is 50 mm in front of VP and 15 mm above HP. B is 15mm in front of vp and is above HP. TOP VIEW OF AB is 50 mm long. Find the front view length and the true inclinations(16M)
4. Draw the projections of a line AB, 90 mm long, its mid point M being 50 mm above the HP and 40 mm in front of the VP. the end A is 20 mm above the HP AND 10 mm in front of the VP. SHOW THE TRACES and inclinations of the line with the HP and VP
5. The front view of a line makes an angle of 30° with xy. The HT of the line is 45 mm in front of the VP. While its VT is 30 mm below the HP. One end of the line is 10 mm above the HP AND THE OTHER END 100 MM IN FRONT OF THE VP. draw the projections of the line and determine its true length and its inclinations with the HP AND VP
6. A line AB 65 MM LONG HAS ITS END A .15 mm above HP AND 15MM IN FRONT OF VP. IT IS INCLINED AT 55° to HP and 35° to VP draw its projections(16M)

UNIT-IV

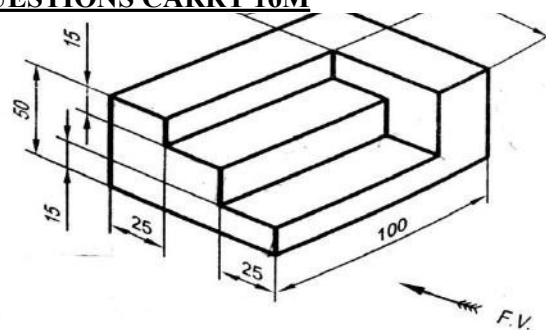
1. A regular pentagonal plate of side 28mm is placed with one side on HP such that the surface is inclined at 45° to HP and perpendicular to VP. draw its projections and traces(16M)
- 2 A thin circular metal plate of 48 mm diameter, having its plane vertical and inclined at 40° to VP
Its center is 33mm above HP and 25mm in front of VP. DRAW ITS projections and locate its traces(16M)

3. Draw the projections of a circle of 75 mm diameter having the end A of the diameter AB in the horizontal plane, the end B in the vertical plane, and the surface inclined at 30° to HP and at 60° to the VP (16M)
 4. Draw the projections of the circle of 50 mm diameter resting in the H.P on a point A on the circumference, its plane inclined at 45° to the H.P and The diameter AB making 30° angle with the V.P (16 M)
 5. A thin circular plate of 70 mm diameter is resting on its circumference such that its plane is inclined 60° to the HP and 30° to the VP. Draw the projections of the plate
 6. A 60° set-square of 125 mm longest side is so kept that the longest side in the H.P making an angle of 30° with the V.P and the set-square itself inclined at 45° to the H.P. Draw the projections of the set- square.
- 2.

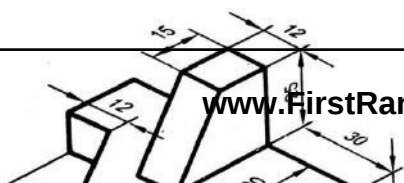
UNIT-V(ALL QUESTIONS CARRY 16M)

1. Draw the projections of a cylinder, base 30mm diameter and axis 40mm long resting with a point of its base circle on HP such that the axis is making an angle of 30° with HP and parallel to VP.
2. Draw the projections of a pentagonal prism, base 25 mm side and axis 50 mm long, resting on one of its rectangular faces on the ground, with the axis inclined at 45° to the VP
3. Draw the projections of a cylinder 75mm diameter and 100 mm long, lying on the ground with its axis inclined at 30° to the V.P and parallel to the ground.
4. Draw the projections of a cone, base 75 mm diameter and axis 100 mm long, lying on the H.P on one of its generators with the axis parallel to the V.P .assuming the cone to be resting on its base on the ground. Draw its projections
5. Draw the projections of a cone of base 30mm diameter and axis 50mm long resting on HP on a point of it's base circle with the axis making an angle of 45° with HP and parallel to VP.
6. A hexagonal pyramid, base 25 mm side and axis 50 mm long, has an edge of its base on the ground. Its axis is inclined at 30° to the ground and parallel to the VP. Draw its projections

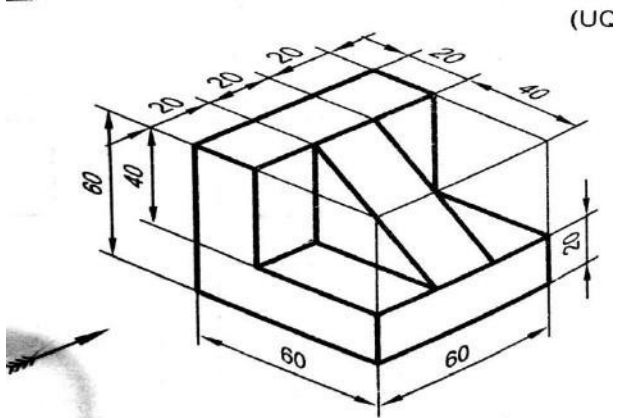
UNIT-VI(ALL QUESTIONS CARRY 16M)



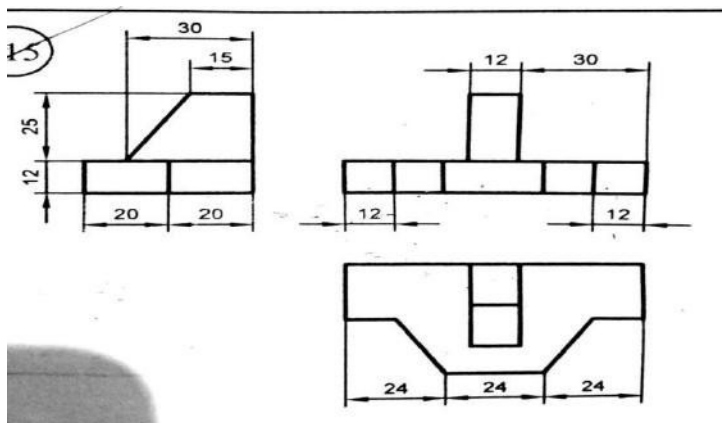
1. convert the following isometric view to ortho graphi
2. Convert the following isometric view to ortho graphic view



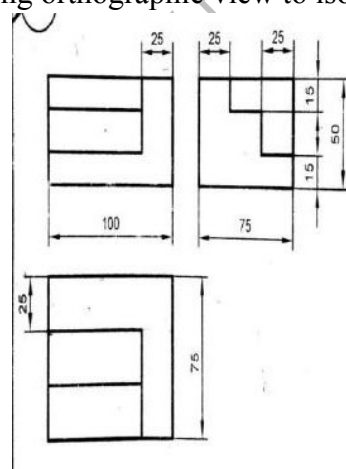
3. Convert the following isometric view to orthographic view



4. Convert the following orthographic view to isometric view



5. Convert the following orthographic view to isometric view



6. convert the following orthographic view to isometric view

