Total No. of Questions : 10]

SEAT No. :

PD-4039

[Total No. of Pages : 4

[6401]-2406
F.E.
ESC-103-MEC : ENGINEERING GRAPHICS
(2024 Pattern) (Semester - I/II)

Time : 3 Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***Attempt Q.2 or Q.3, Q.4 or Q.5, Q.6 or Q.7, Q.8 or Q.9 or Q.10.***
2) ***Figures to the right indicate full marks.***
3) ***State clearly the assumptions made, if any.***
4) ***Use of non-programmable calculator is allowed.***
5) ***Assume suitable data, if necessary.***

Q1) The end point P of line PQ is 25 mm above HP while its point Q is 15 mm in front of VP. Its plan and elevation makes 40° and 35° with XY respectively. Draw the projection, if the projector distance between the end points is 60 mm. Find inclination made by the line with HP and VP. **[12]**

OR

Q2) A line AB 70 mm long is inclined at an angle 30° to HP. Its end point A is10 mm above HP and 15 mm in front of VP. Elevation length of the line is 45 mm. Draw the projections of line. **[12]**

Q3) An equilateral triangle of 60 mm side is resting on HPon one of its side. Then its surface is inclined with HP at an angle of 40°. Draw the projections of plane, if the resting side is inclined to VP at an angle of 30°. **[12]**

OR

Q4) A pentagonal plane of side 40 mm is resting on HP on its corner and the edge opposite to the corner makes an angle of 25° with VP. Surface of the plane, is inclined at 40° to HP. Draw the projections of the plane. **[12]**

P.T.O.

Q5) a) Draw the ellipse by focus directrix method if the distance from focus to directrix is 60 mm and the eccentricity ratio is 2/3. **[7]**

b) Draw the development of lateral surfaces of pentagonal prism of base side 30 mm and axis height 80 mm. **[7]**

OR

Q6) a) Draw the involute of circle of diameter 50mm. **[7]**

b) Draw the development of lateral surface of cone of base diameter 50 mm and axis height 70 mm. **[7]**

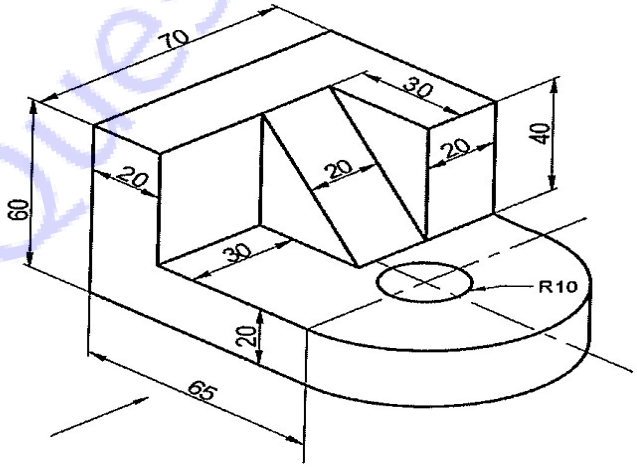
Q7) Fig. shows a pictorial view of an object. Using first angle method of projection draw: **[16]**

a) Front View **[5]**

b) Top View **[5]**

c) Right Hand Side View **[5]**

d) Give Dimensions **[1]**



OR

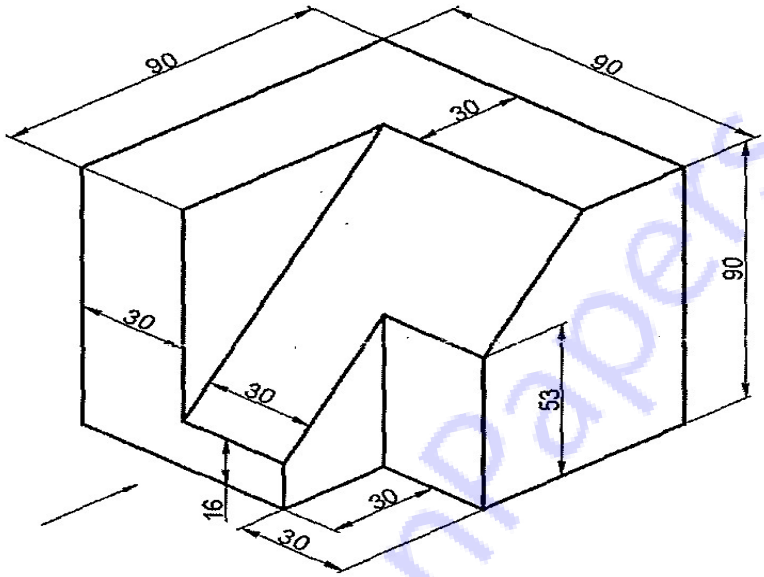
Q8) Fig. shows a pictorial view of an object. Using first angle method of projection draw: **[16]**

a) Front View **[5]**

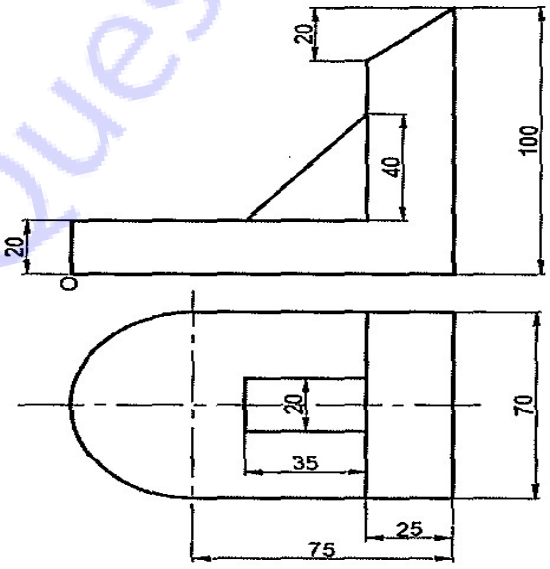
b) Top View **[5]**

c) Right Hand Side View **[5]**

d) Give Dimensions **[1]**

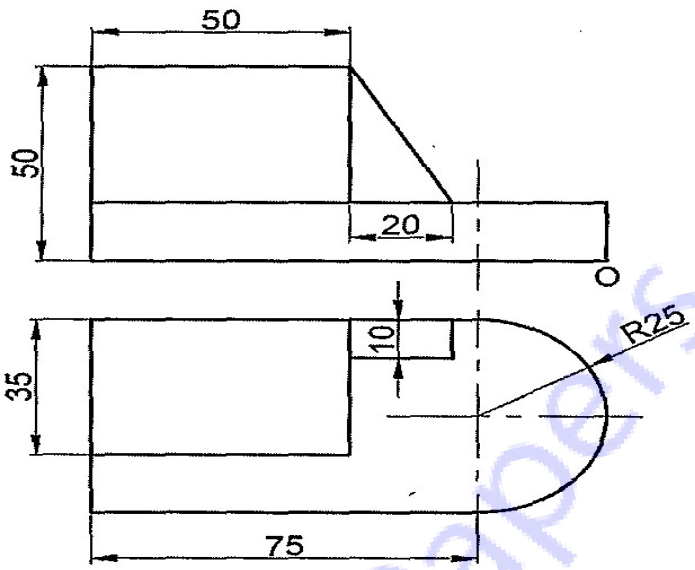


Q9) Figure show orthographic views of an object by first angle method of projection. Draw its isometric view. **[16]**



OR

Q10)Figure show orthographic views of an object by first angle method of projection. Draw its isometric view. **[16]**



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