Code No: **R201224** **R20** **SET - 1**

I B. Tech II Semester Regular/Supplementary Examinations, July/August-2023
ENGINEERING DRAWING
(Common to Mining, Agri. E, Phar.E)

Time: 3 hours Max. Marks: 70

Answer any five Questions one Question from Each Unit
All Questions Carry Equal Marks

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UNIT-I

1. A fixed point F is 7.5 cm from a fixed straight line. Draw the locus of a point P moving in such a way that its distance from the fixed straight line is 2/3 times its distance from F. Name the curve. Draw normal and tangent at a point 6 cm from F. [14M]

(OR)

2. Two fixed points A and B are 100 mm apart. Trace the complete path of a point P moving (in the same plane as that of A and B) in such a way that the sum of its distances from A and B is always equal to 125 mm. Name the curve. Draw another curve parallel to and 25 mm away from this curve. [14M]

UNIT-II

3. a) A 100mm long line is parallel to and 40mm above the H.P. Its two ends are 25mm and 50mm in front of the V.P. respectively. Draw it projections and find its inclination with the V.P. [7M]
   b) Draw the projections of a line AB, 90 mm long, its midpoint 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. [7M]

(OR)

4. A line AB of 70mm long has its end A at 10mm above H.P. and 15mm in front of V.P. Its front view and top view measure 50mm and 60mm respectively. Draw the Projections of the line and determine its inclinations with H.P. and V.P. [14M]

UNIT-III

5. A rectangle ABCD 60 mm × 40 mm is parallel to HP with one of its sides inclined at 30^0 to VP and the end of the side near to VP is 15 mm in front of the VP and 30 mm above the HP. Draw its projections. [14M]

(OR)

6. A regular pentagon of 30mm sides is resting on HP on one of its side while its opposite vertex is 30mm above HP. Draw the projections when the side in HP is 30^O inclined to VP [14M]

UNIT-IV

7. a) Draw the projections of a hexagonal prism of base 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 45^0 to H.P. [7M]
   b) A cube of 50mm long edges is resting on the H.P. with its Vertical faces equally inclined to the V.P. Draw its projections. [7M]

(OR)

8. A square pyramid, base 40mm side and axis 90mm long, has a triangular face on the ground and the vertical plane containing the axis makes an angle of 45^0 with the V.P. Draw its projections. [14M]
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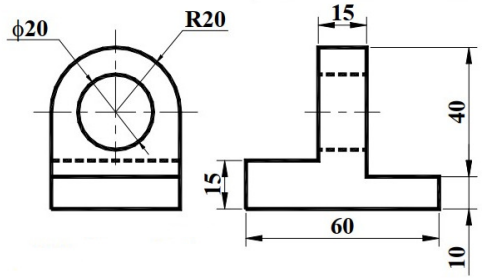
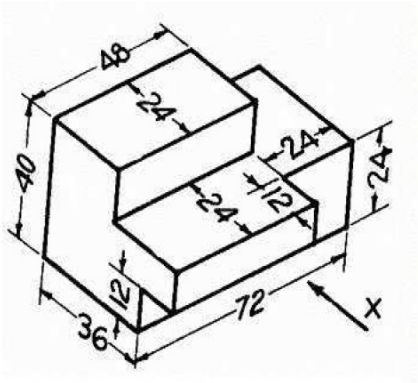
UNIT-V

9. Sketch the pictorial view for the below figure from the given orthographic views. [14M]



(OR)

10. Draw the elevation, plan, left and right views of the part shown in the figure below. [14M]
(All dimensions are in mm).



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