Code No: **R201135** **R20** **SET - 1**

I B. Tech I Semester Supplementary Examinations, July/August-2023
DESIGN DRAWING AND VISUALIZATION

(Only for CSD)

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) The distance between Bombay and Pune is 180 km. A passenger train covers this distance in 6 hours. Construct a plain scale to measure time upto a single minute. The representation factor of the scale is 1/200000. Find the distance covered by the train in 36 minutes. [10M]

   b) Construct a pentagon of 30 mm side using general method. [4M]

(OR)

2. A coin of 40mm diameter rolls over horizontal table without slipping. A point on the circumference of the coin is in contact with the table surface in the beginning and after one complete revolution. Draw and name the curve. Draw a tangent and normal at any point on the curve. [14M]

UNIT-II

3. A circular disc of diameter 60 mm and thickness 10 mm is kept on the ground on its flat face. The perspective picture plane is tangent to its curved surface. An observer views it from a point 70 mm above the ground and 118 mm in front of the picture plane. The central plane passes through the center of the disc. Draw the perspective projection of the disc. [14M]

(OR)

4. A square prism, side of base 40 mm and height 60 mm rests with its base on the ground such that one of its rectangular faces is parallel to and 10 mm behind the picture plane. The station point is 30 mm in front of PP, 80 mm above the ground plane and lies in a central plane 45 mm to the right of the center of the prism. Draw the perspective projection of the square prism. [14M]

UNIT-III

5. The end A of the line AB is 10 mm above the HP and 30 mm in front of the VP. The end B is 50 mm below the HP and 15 mm behind the VP. The length of the line is 80 mm. Draw the projection and locate the traces. What are the inclinations of the line with the reference planes? [14M]

(OR)

6. A hexagonal prism of side of base 25 mm and length of axis 70 mm is resting on the HP on one of its rectangular faces. Draw its projections when its axis is inclined to the VP at 45^0. [14M]

UNIT-IV

7. Draw the analytical drawing for the following scene visualization: You can use the one point perspective method to draw a kitchen in a house. [14M]

(OR)

8. Draw the analytical drawing for the following object visualization: Show the analytical drawing of a horse riding race. [14M]
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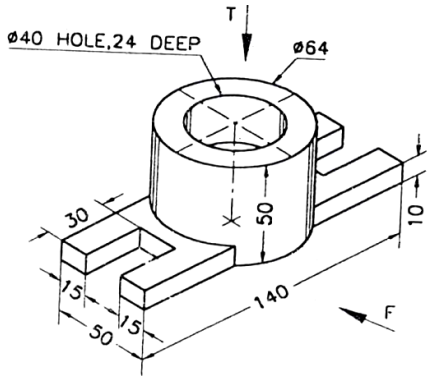
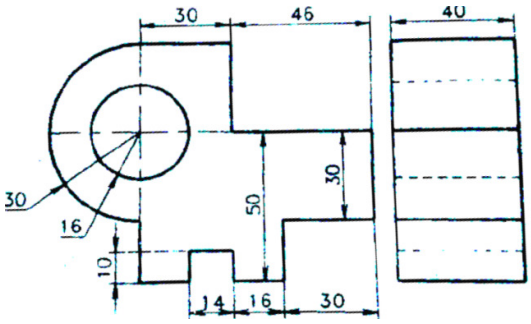
UNIT-V

9. Draw the following three orthographic views of an object shown in the pictorial projection. [14M]



(OR)

10 Draw an isometric view of orthotropic projections shown below. [14M]



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