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**Question Paper Code : U1710**

B.E./B.Tech. DEGREE EXAMINATION, NOV 2024

First Semester

Computer Science and Design

21UME110 – ENGINEERING DRAWING AND DESIGN

(Regulations 2021)

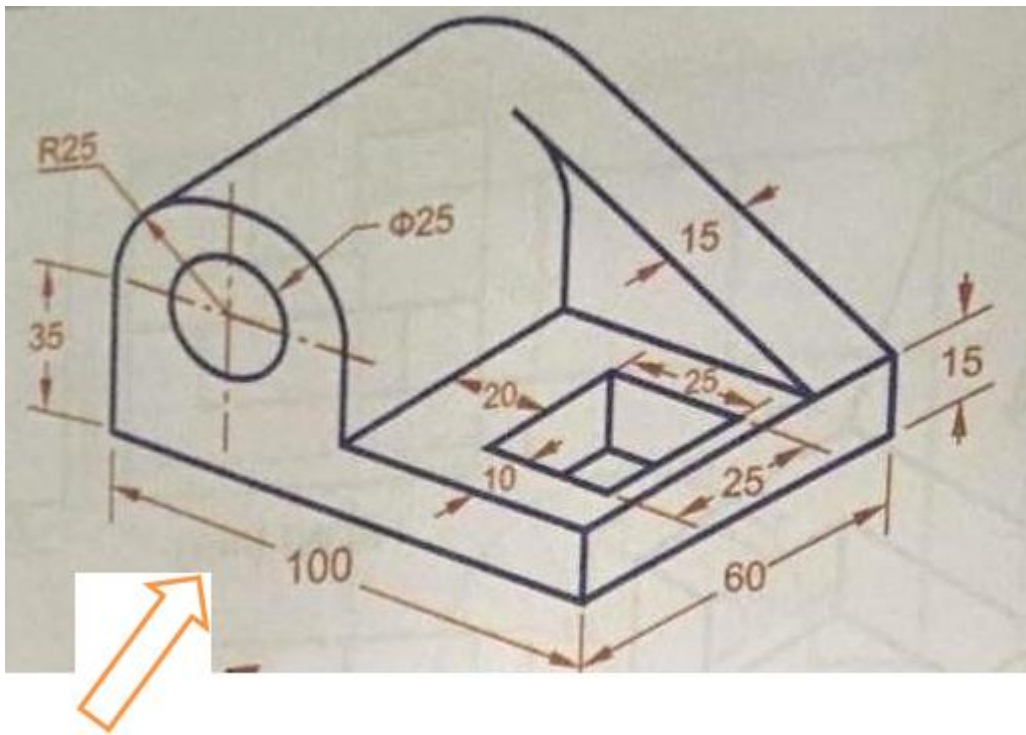
Duration: Three hours

Maximum: 100 Marks

PART A - (5 x 20 = 100 Marks)

- 1 (a) A fixed point is at 60 mm from a fixed straight line. Draw the curve when eccentricity is  $\frac{2}{3}$ . Name the curve. Draw tangent and normal to the curve through a point which is at 65 mm from the straight line. CO1-App (20)  
Or  
(b) A circle of 50 mm diameter rolls along a line. A point on the circumference of the circle is in contact with the line in the beginning and after one complete revolution. Draw the cycloidal path of point. Draw a tangent and normal at any point on the curve. CO1-App (20)
- 2 (a) A Cylinder of diameter 40mm and height 65mm is resting on ground on a base. It is then tilted such that its axis makes an angle of  $30^\circ$  with HP and parallel to VP. Draw the Projections CO2-App (20)  
Or  
(b) A cone of diameter 50mm, axis height 70mm is lying on HP on one of its base points with its axis inclined at  $40^\circ$  to HP and parallel to VP. Draw its projections. CO2-App (20)
- 3 (a) Draw the Isometric view of a cylinder of base 50 mm diameter and 70 mm height when it rests with its base on HP. CO3-App (20)  
Or  
(b) A square pyramid of side of base 30 mm and altitude 50 mm stands on the ground vertically with an edge of base parallel to and 15 mm behind PP. The station point is 35 mm in front of PP and 60 mm above the ground. The central plane is located at 35 mm to the left of the solid. Draw the perspective projection of the pyramid. CO3-App (20)

- 4 (a) A cylinder of diameter 50 mm and axis length 60 mm lies on ground with its axis perpendicular to the picture plane and one of its circular bases touching the picture plane. The station point is 45 mm to the right of the axis of the cylinder, 40 mm in front of Picture Plane and 70 mm above the Ground Plane. Draw the Perspective View of the cylinder. CO3-App (20)
- (b) A square pyramid of base side 35 mm and axis height 50 mm resting on HP with its base parallel to VP. Draw the isometric view. CO3-App (20)
- 5 (a) Draw three views of the blocks shown pictorially in figure according to first angle projection CO4-App (20)



Or

- (b) Draw three views of the blocks shown pictorially in figure according to first angle projection. CO4-App (20)

