



**ACE**  
Engineering College  
(with a Difference in Excellence)

An AUTONOMOUS Institution

Question Paper Code:

ME204ES

ACE-R20

**Semester End Examination**  
**I B. Tech- II Semester Supply - JUNE-2022**  
**Engineering Graphics**  
**(Common to EEE,CSE,IT,CSD )**

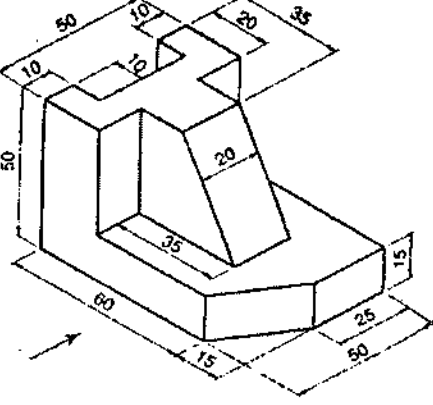
Time: 3 Hours

Max. Marks: 70

H. T. No									

Answer any 5 Questions out of 8 Questions from the following

Q.No	Question	Marks
1. a)	The major and minor axes of an ellipse are 120 and 80. Draw an ellipse.	7
b)	Construct a hyperbola, with the distance of the focus from the directrix as 50 and eccentricity as $3/2$ . Also, draw a tangent and normal to the curve at a point 30 from the directrix.	7
2. a)	Construct a diagonal scale of R.F.=1:20 and capable of measuring 4m. Mark on it a distance of 3.24m and 3.89m.	7
b)	Two points A and B are on H.P; the point A is being 30 in front of V.P, while B is 45 behind V.P. The line joining their top views make an Angle of $45^\circ$ with xy. Find the horizontal distance between two points.	7
3.	A 120 mm long line PQ has its ends P and Q 10 mm and 60 mm below the H.P., respectively. The end projectors are 50 mm apart. The mid-point of PQ is 60 mm in front of the V.P. Draw the projections and find the angles with both the reference planes.	14
4. a)	Draw the projections of a regular pentagon of 25 side with its surface making an angle of $45^\circ$ with H.P. One of the sides of the pentagon is parallel to H.P and 15 away from it.	7
b)	Construct a cycloid, given the diameter of the generating circle as 40. Draw tangent to the curve at a point 30 from the line.	7
5.	A cylinder of 40mm diameter and 50 mm axis is resting on one point of the base circle on VP while its axis makes $45^\circ$ with VP and front view of the axis $35^\circ$ to HP. Draw the projections.	14
6.	A pentagonal prism, 30mm base side and 50 mm axis is standing on HP on it's base with one side of the base perpendicular to VP. It is cut by a section plane inclined at $45^\circ$ to the HP, through midpoint of axis. Draw Front View and sectional side View. Also draw true shape of section and development of surface of remaining solid	14

7.	A square prism of 30 mm base sides and 70mm axis is completely penetrated by another square prism of 25 mm sides and 70 mm axis, horizontally. Both axes Intersects & bisect each other. All faces of prisms are equally inclined to V.P. Draw projections showing curves of intersections	14
8.	<p>Draw the following views for the object shown in figure. All dimensions are in mm.</p> <p>a) Front view b) Top view c) Left Side view.</p> 	14