



ACE
Engineering College
(with a Difference in Excellence)

An AUTONOMOUS Institution

Question Paper Code:

ME104ES

ACE-R20

Semester End Examination
I B. Tech- I Semester Regular/ Supply - JUNE-2022
Engineering Graphics
(Branch : ECE)

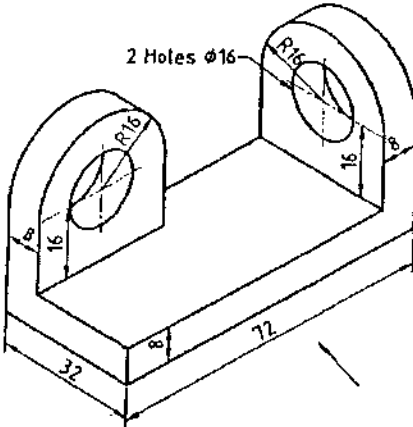
Time: 3 Hours

Max. Marks: 70

H. T. No

Answer any 5 Questions out of 8 Questions from the following

Q.No	Question	Marks
1. a)	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
b)	Construct a Diagonal scale of RF = 3:200. Showing meters, decimeters and centimeters. The scale should measure up to 6 meters. Show a distance of 4.56 meters.	7
2. a)	A point 30 above xy line is the plan view of two points P and Q. The elevation of P is 45 above the H.P. while that of the point Q is 35 below the H.P. Draw the projections of the point and state their positions with reference to the principal planes and the quadrants in which they lie.	7
b)	A line AB of 90 long is inclined at 45° to H.P and its top view makes an angle of 60° with xy. The end A is on H.P and 12 in front of V.P. Draw its projections and find its inclination with V.P.	7
3.	An equilateral triangular plane ABC of side 40mm, has its plane parallel to V.P and 20mm away from it. Draw the projections of the plane when one of its sides is (i) perpendicular to H.P. (ii) parallel to H.P and (iii) inclined to H.P at an angle of 45° .	14
4. a)	A rectangular plot of 100 square kilometers is represented on a certain map by a similar rectangular area of 4 square centimeters. Draw a scale to show kilometers and mark a distance of 43 kilometers on it.	7
b)	A square plane ABCD of side 30, is parallel to H.P and 20 away from it. Draw the projections of the plane, when two of its sides are (i) parallel to V.P and (ii) inclined at 30° to V.P.	7
5.	A square pyramid, 40mm base sides and axis 60mm long, has a triangular face on the ground and the vertical plane containing the axis makes an angle of 45° with the V.P. Draw the projections. Take apex nearer to VP.	14
6.	A hexagonal prism, having a base with a 30 mm side and a 60 mm axis, is resting on its base on the H.P. It is cut by a section plane parallel to the V.P. and 10 mm in front of the axis of the prism. Draw its top view and sectional front view.	14

7.	A Pentagonal Pyramid, sides of base 25mm and height 65mm is placed centrally on a cylindrical slab of diameter 100mm and thickness of 30mm. Draw the Isometric Projection of the combination.	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