

Code No: ME104ES

**CMR ENGINEERING COLLEGE**  
(UGC-Autonomous)  
Kandlakoya (V), Medchal Road, Telangana-501401  
I-B.Tech I-Semester Examinations, July - 2021  
**ENGINEERING GRAPHICS**  
(ECE)

Time: 3 Hours

Max. Marks: 70

Answer any Five Questions  
All Questions Carry Equal Marks

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1. The beach is 2.5 km long. On inspection of the road map, its equivalent distance measures 5 cm. draw a diagonal scale to read 50 m minimum. Mark on the scale a distance of 6350 m.
2. Draw a hypocycloid of rolling circle 40 mm, which rolls inside another circle (base circle) of 200 mm diameter for one revolution.
3. A line PQ 80 mm long has its end P in the H.P and 15 mm in front of the V.P. The line is inclined at  $30^{\circ}$  to the H.P and its top view is inclined at  $60^{\circ}$  with the reference line. Draw projections of the line find true angle of inclination with V.P.
4. A hexagonal pyramid of side of base 40 mm and altitude 60 mm is lying on HP on one of its triangular faces with the plane containing the axis inclined at an angle of  $45^{\circ}$  to the VP, such that the apex is far away from VP. Draw the projections.
5. A pentagonal pyramid, side of base 30 mm and axis 60 mm long is lying with one its triangular faces on the HP and axis parallel to the VP. Draw its projections.
6. A cylinder of 40mm dia 7cms height is resting on its base in H.P. It is cut by a section plane perpendicular to V.P and inclined at  $50^{\circ}$  H.P and passes through a point 10mm below the top centre. Draw the development of the lateral surface of cut portion.
7. Projections of the object are given in Figure 1. Draw the isometric view. All dimensions are in mm.

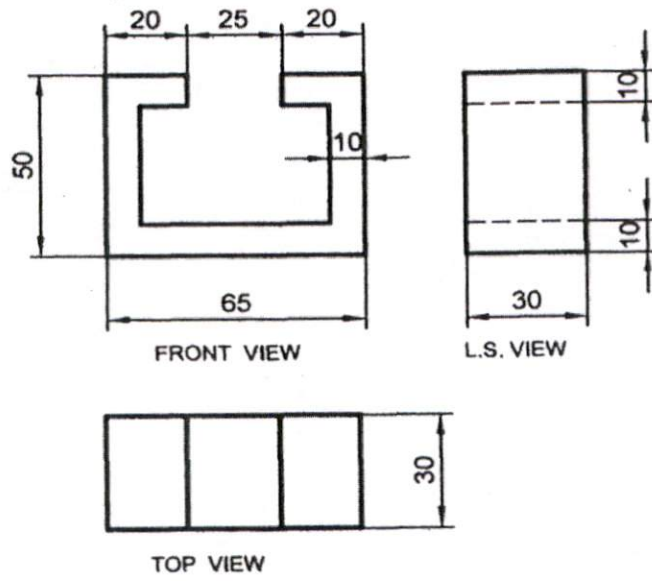


Figure 1

8. Draw the following views of the object given in Figure.2. All dimensions are in mm.

- a) Front View
- b) Top View
- c) Side View from the right.

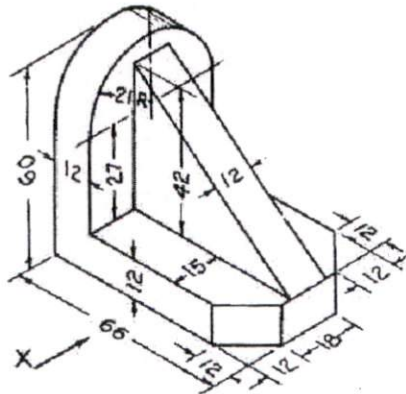


Figure 2