

**BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY &  
SCIENCE**

**(AUTONOMOUS)**

**I - B. Tech II-Semester Regular/Supplementary Examinations (BR23), June - 2025  
ENGINEERING GRAPHICS (ECE)**

Time: 3 hours

Max. Marks: 70M

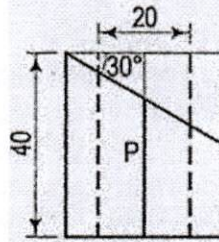
*Answer ALL the questions*

**PART-A (5X14 = 70M)**

- |      |   |      |        |     |
|------|---|------|--------|-----|
| 1.a) | Construct plain scales with any suitable example.   | 04 M | C114.1 | BL3 |
| b)   | Construct a hyperbola, when the distance of the focus from the directrix is 65 mm and eccentricity is $3/2$ .   | 10 M | C114.1 | BL3 |
| (OR) |   |      |        |     |
| 2.a) | Draw the regular polygons by general method with side Length 40 m.m   | 04 M | C114.1 | BL3 |
| b)   | Construct a cycloid, given the diameter 50 mm of the generating circle.   | 10 M | C114.1 | BL3 |
| 3 a) | A point P is in the first quadrant. Its shortest distance from the intersection points of H.P., V.P. and Auxiliary vertical plane, perpendicular to the H.P. and V.P. is 70 mm and it is equidistant from principal planes (H.P. and V.P.). Draw the projections of the point and determine its distance from the H.P. and V.P. | 10 M | C114.2 | BL3 |
| b)   | Draw the projection of points in all the Quadrants with 20m.m Common distance from V.P and H.P  | 4 M  |        |     |
| (OR) |   |      |        |     |
| 4 a) | The length of the top view of a line parallel to the V.P. and inclined at $45^\circ$ to the H.P. is 80 mm. One end of the line is 12 mm above the H.P. and 25 mm in front of the V.P. Draw the projections of the line and determines its true length.  | 10 M | C114.2 | BL3 |
| b)   | Draw the Projections of Straight Line 80 m.m Length which is parallel to both H.P and V.P   | 4M   |        |     |
| 5 a) | Draw the projections of a pentagonal pyramid, base 30 mm edge and axis 50 mm long, having its base on the H.P. and an edge of the base parallel to the V.P. Also draw its side view   | 14 M | C114.3 | BL3 |
| (OR) |   |      |        |     |
| 6 a) | Draw the projections of a A hexagonal prism has one of its rectangular faces parallel to the H.P. Its axis is perpendicular to the V.P. and 3.5 cm above the ground.  | 14 M | C114.3 | BL3 |

- 7 a) Draw the development of the lateral surface of the part P of each of the A pentagonal prism, a side of the base parallel to the V.P, the front views of which are shown in figure below.

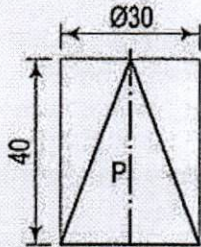
14 M C114.4 BL3



(OR)

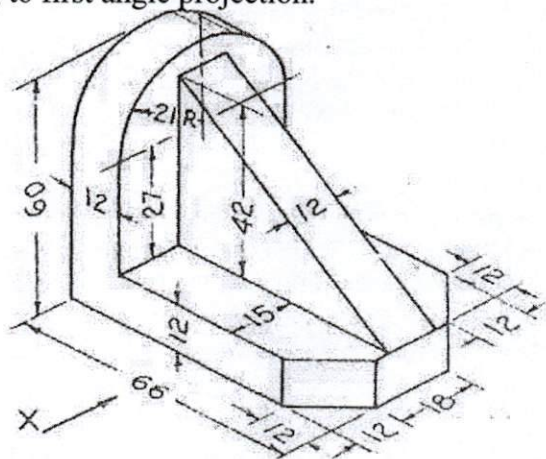
- 8 a) Draw the development of the lateral surface of the part P of each of the cylinders, the front views of which are shown in figure below:

14 M C114.4 BL3



- 9 a) Draw three views of the blocks shown pictorially in figure according to first angle projection.

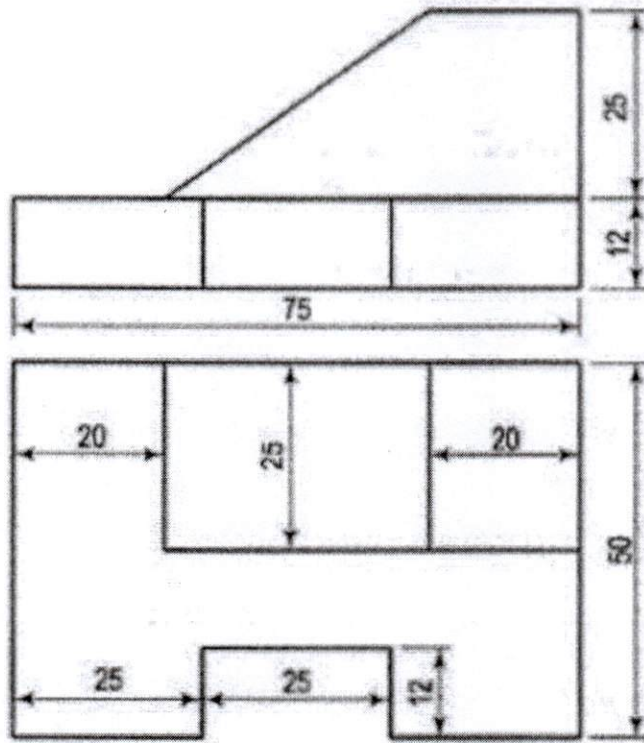
14 M C114.5 BL3



(OR)

- 10 a) Convert Orthographic Projections into isometric projections.

14 M C114.5 BL3



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