

Code: R7100107

**R7**

B.Tech I Year (R07) Supplementary Examinations, June 2013

**ENGINEERING GRAPHICS**  
(Common to CE & ME)

Time: 3 hours

Max Marks: 80

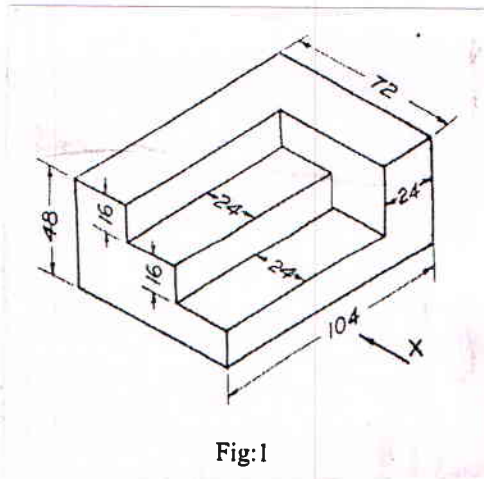
Answer any FIVE questions  
questions carry equal marks

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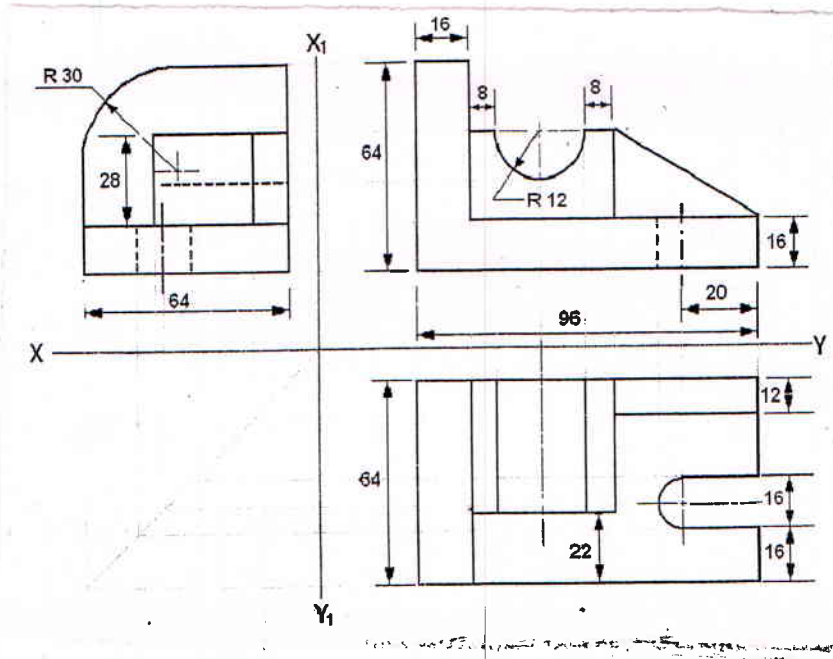
- 1 (a) Fixed point is 75 mm from a fixed straight line. Draw the locus of a point P moving such a way that its distance from the fixed straight line is twice its distance from the fixed point.  
(b) Show by sketches the difference between chain dimensioning and parallel dimensioning.
- 2 The top view of a 75 mm long line CD measures 50 mm. C is 50 mm in front of the VP and 15 mm below the HP D is 15 mm in front of the VP and is above the HP. Draw the front view of CD and find its inclinations with the HP. Show also its traces.
- 3 A regular pentagonal pyramid with the sides of its base 30 mm and height 80 mm rests on an edge of the base. The base is tilted until its apex is 50 mm above the level of the edge of the base on which it rests. Draw the projection of the pyramid when the edge on which it rests is parallel to the VP and the apex of the pyramid points towards V.P.
- 4 A vertical cylinder of 80 mm diameter is completely penetrated by another cylinder of 60 mm diameter, their axes bisecting each other at right angles. Draw their projections showing curves of penetration, assuming the axis of the penetrating cylinder to be parallel to the V.P.
- 5 A hexagonal pyramid of base side 30 mm and height 70 mm rests vertically on HP with one of the base sides parallel to V.P. Draw the development of the lateral surface of the hexagonal pyramid.

Contd. in Page 2

- 6 Draw the front, top and left hand side views of the isometric view as shown in figure 1. All dimensions are in mm.



- 7 Draw the isometric view as shown in figure 2. All dimensions are in mm.



- 8 A cube of edge 5 cm rests with one of the faces on the ground, the nearest vertical edge being 1 cm to the left of the station point and 2.5 cm behind P.P. A face containing the nearest vertical edge is inclined at  $60^\circ$  to the PP. The station point is 7.5 cm above the ground and 10 cm in front of PP. Draw the perspective view of the cube.

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