



SEM 1-5 (RC-07-08)

F.E. (Semester – I) (RC 2007 – 08) Examination, May/June 2018 ENGINEERING GRAPHICS

Duration : 4 Hours

Max. Marks : 100

- Instructions :**
- 1) Attempt in **all five** questions.
 - 2) At least **one** question must be attempted from **each** Module.
 - 3) Assume missing dimensions/data **if any**.
 - 4) **All** dimensions in mm unless otherwise specified.

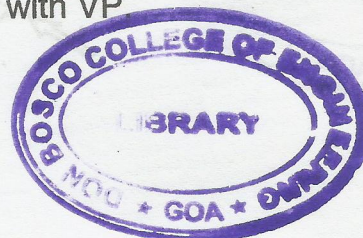
MODULE – I

1. a) A tank shoots a projectile at an angle of 70° (to the ground) from top of a 30 m high hill. The projectile reaches a max height of 75 m (from ground) and then falls. Draw the path traced by the projectile till it falls on the ground. Name the curve and find the range of the projectile. **10**
b) The top view of 75 mm long line AB measures 65 mm while its front view is 50 mm. Its one end A lies in HP and 12 mm in front of VP. Draw the projections of the line. **10**
2. a) Draw the involute of a regular pentagon of side 20 mm. **10**
b) A room 5.5 m \times 6.5 m \times 3.5 m high has a bulb hanging from the centre of its ceiling. The rod for suspension of bulb is 1 m long. The switch for the bulb is located on the longer wall at 1.5 m from the floor and 2 m from the shorter wall. Find the shortest distance between the bulb and the switch. **10**

MODULE – II

3. a) A circular lamina of 60 mm diameter rests on HP such that the surface of the lamina is inclined at 40° to HP. The diameter through the point on which the lamina rests on HP is inclined at 30° to VP. Draw its projections. **10**
b) Draw the projections of pentagonal prism, side of base 40 mm and axis 70 mm standing on one of the corners of the base on the ground, with its axis making an angle of 30° with HP and 45° with VP. **10**
4. a) Draw the projections of a regular pentagon of side 30 mm, resting on one of its corner in the VP. Its side opposite to this corner makes an angle of 50° to HP and the surface makes an angle of 40° with VP. **10**

P.T.O.



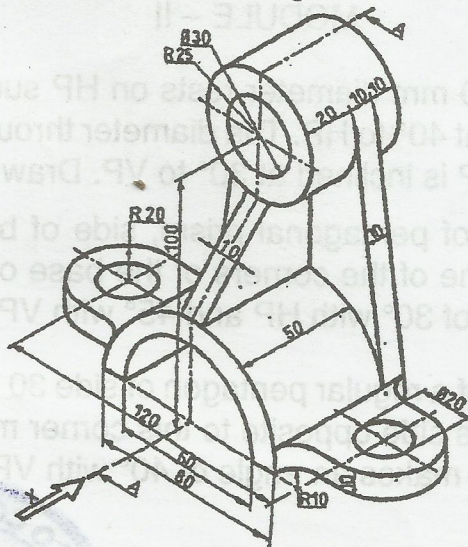


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MODULE – IV

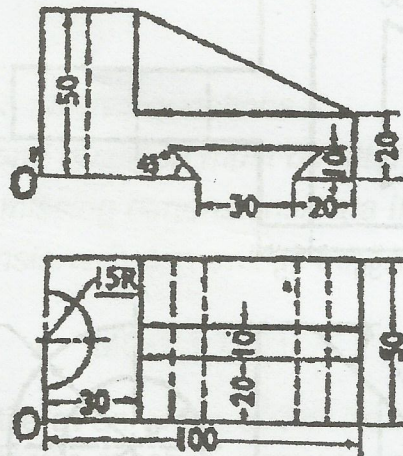
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- b) Two orthographic views are given in the figure below. Draw an isometric view, taking O as origin.

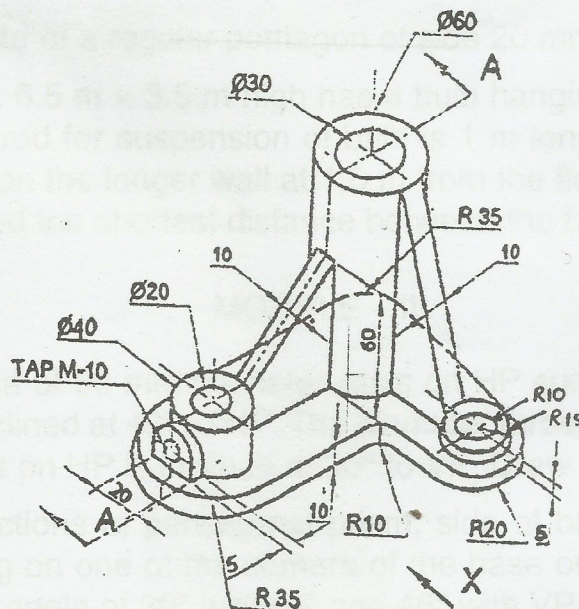
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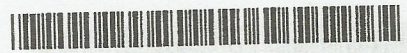


8. a) From the pictorial view shown below, draw the following views :

- i) Front view in the direction of X
- ii) Left hand side view

10





- b) Two orthographic views are given in the figure below. Draw an isometric view, taking O as origin. 10

