Code No: **R161112** **R16** **SET - 1**

I B. Tech I Semester Supplementary Examinations, Jan/Feb - 2024

ENGINEERING DRAWING

(Common to CSE, IT, Agri E)

Time: 3 hours Max. Marks: 70

*Note: 1. Question paper consists of two parts (**Part-A** and **Part-B**)*
*2. All the questions in **Part-A** is Compulsory*
*3. Answer any **FOUR** Questions from **Part-B***

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PART –A (14 Marks)

1. a) Construct a regular Pentagon of 30 mm side, by any two different methods. [2M]
   b) Geometrically show how to divide a 90 mm long straight into 12 equal parts. [2M]
   c) A point A is 40mm below the HP and 20mm behind the VP. Draw its Projections. [2M]
   d) Draw the front view of a Triangle ABC, standing on one of its side on HP and Perpendicular to both the reference planes. [2M]
   e) Draw the orthographic front view of a square pyramid 30mm base and 50mm height standing on its base on the HP with two sides of its base equally inclined to the VP. [2M]
   f) Draw an isometric view of an orthographic front view of an object appears to be a circle of 50mm diameter. [2M]
   g) Draw an Isometric scale. [2M]

PART –B (56 Marks)

2. a) A Stone is thrown from a 4 m high building and at its highest flight; the stone just crosses the top of a 10 m high tree from the ground. Trace the path of the projectile, if the horizontal distance between the building and the tree is 5m. Find the distance of the point from the building where the stone falls on the ground. [7M]
   b) Construct a scale of 1:54 to show yards and feet and long enough to measure 9 yards. Mark a distance of 5 yards 2 feet on it. [7M]
3. a) Draw the projectors of the following points in different quadrants. [7M]
   i) Point A, 30 mm in front of VP and 35 mm above HP
   ii) Point B, 20 mm behind VP and 40 mm above HP
   iii) Point C, 30 mm behind VP and 25 mm below HP
   iv) Point D, 50 mm in front of VP and 30 mm below HP
   b) Draw the projections of a 100mm long straight line, in the following positions : [7M]
   i) Parallel to the VP and perpendicular to the HP.
   ii) Inclined at 45^0 to the VP in the HP and its one end in the VP.
4. Draw the projections of a line AB, 90mm long, its midpoint M being 50mm above the HP and 40mm in front of the VP. The end A is 20mm above the HP and 10mm in front of the VP. Show the inclinations of the line with the HP and the VP. [14M]
5. Draw the projections of a regular hexagon of 30 mm side, having one of its sides in the HP and inclined at 60^0 to the VP and its surface making an angle of 45^0 with the HP. [14M]
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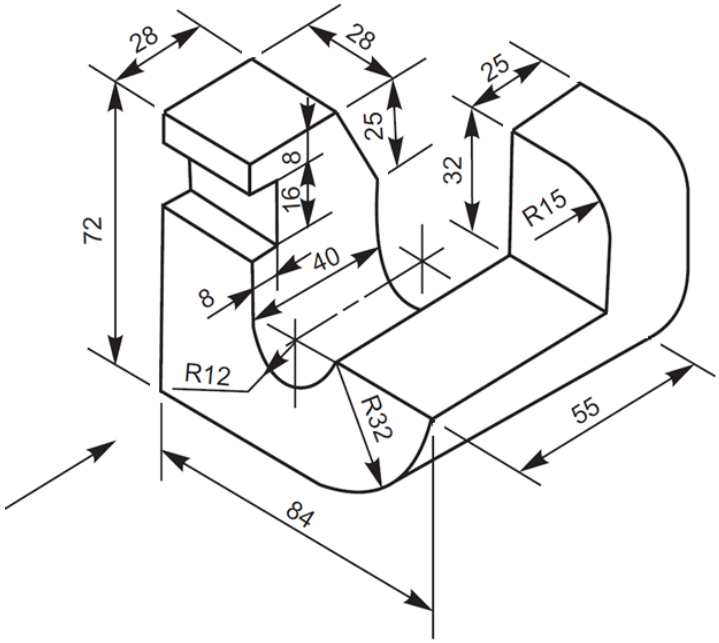
6. a) A cube of 30 mm long edges lies with one of its square faces on HP. Such that one of its vertical faces is inclined at 30^0 to V.P. Draw its projections. [7M]

   b) Draw the projections of a pentagonal pyramid axis 60 mm long, base 30 mm side having base on the ground and one of edges of base inclined at 45^0 to VP. [7M]

7. Draw the 3-orthographic projections of the following pictorial projection? Assume all dimensions are in mm? [14M]



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