

Roll No.

Total No. of Questions : 09]

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B. Tech. (Sem. - 2nd)**ENGINEERING DRAWING & COMPUTER GRAPHICS****SUBJECT CODE : ME - 102****Paper ID : [A0121]****[Note : Please fill subject code and paper ID on OMR]****Time : 03 Hours****Maximum Marks : 60****Instruction to Candidates:**

- 1) Section - A is **Compulsory**.
- 2) Attempt any **Five** questions from Section - B & C.
- 3) Selecting atleast **Two** question from Section - B & C.

Section - A**Q1)****[2 Marks Each]**

- a) Draw the symbol of first angle and third angle projections.
- b) Show the unidirectional system of dimensioning with the help of a sketch.
- c) Draw the centre line and a cutting plane line.
- d) Show the true angle of a line inclined to HP and parallel to VP.
- e) Define an Auxillary plane and name them.
- f) Show the frustum of a CONE.
- g) What do you mean by solids of revolution?
- h) Differentiate between a prism and pyramid with the help of a sketch.
- i) What do you mean by parallel line development.
- j) Draw free hand sketch of an isometric scale.

Section - B

[8 Marks Each]

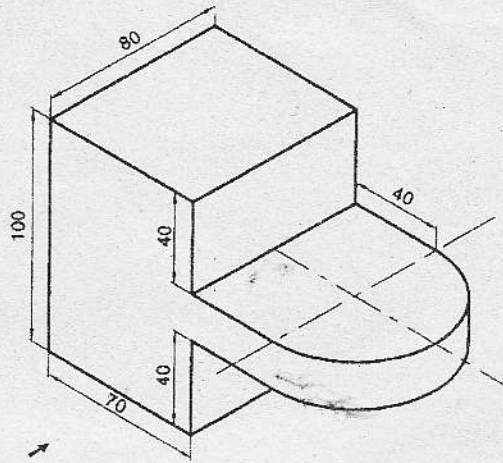
- Q2) Construct a diagonal scale to measure 0.01 and 0.1 of a metre and long enough to measure upto 6 metres when one metre is represented by 2.5 cms. Find RF and indicate on the scale a distance of 5.55 metres.
- Q3) A straight line AB is 60 mm long. It makes an angle of 25° to Hp and 55° to VP. The end A is in the VP and 20 mm above HP. Draw its projections in first angle.
- Q4) A cone of diameter 60 mm and height 60 mm is resting in the HP on one of its generators. Draw its projections if its axis is kept parallel to VP.
- Q5) A square prism with a base side of 45 mm and an axis length of 90 mm is resting in HP in such a way that its vertical faces are equally inclined to the VP. A vertical sectional plane passing through the mid points of two adjacent sides of the base (away from XY) cuts the prism. Draw its projections.

Section - C

[8 Marks Each]

- Q6) A hexagonal prism of side of base 25 mm and length of axis 60 mm is kept on the ground on its base such that the two opposite side of the base are parallel to the VP. It is cut by an AIP inclined at 45° to HP and passing through one of the top corners of the prism. Draw the development of the surface of the cut prism.
- Q7) A vertical square prism with a 60 mm base side and an 80 mm axis length is completely penetrated by a horizontal square prism with a 40 mm base side and 100 mm axis length such that their axes bisect each other. The faces of the prism are equally inclined to VP. Draw its projections.
- Q8) Draw the isometric view of the three squares of sides each 60 mm, 20 mm and 40 mm placed one over the other centrally and in the order as mentioned i.e. 60 mm, 20 mm & 40 mm.

Q9) Draw elevation in the direction of arrow, plan and right hand side view of the given figure in First angle projection show all dimensions in unidirectional system of dimensioning.



(a)

