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Question Paper Code: AME001



INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)

B.Tech I/II Semester Supplementary Examinations - July, 2017

Regulation: IA-R16

ENGINEERING DRAWING

[Common for : I Semester (AE, ME and CE)]

Time: 3 Hours

Max Marks: 70

Answer ONE Question from each Unit

All Questions Carry Equal Marks

All parts of the question must be answered in one place only

UNIT – I

- (a) Construct a diagonal scale to read metres, decimetres and centimetres for a R.F. of $1/50$ and long enough to measure up to 5 meters. Show on it a length of 2.89 metres, 3.67 metres and 4.44 metres. [7M]
(b) Draw the hyperbola when the distance of the focus from the directrix is equal to 50 mm and the eccentricity is $4/3$. Draw a tangent and normal at any point on the hyperbola. [7M]
- An elastic string of 150 mm long has its one end attached to the circumference of a circular disc of 50 mm diameter. Draw the curve traced out by the other end of the string, when it is completely wound around the disc, keeping the string always tight. [14M]

UNIT – II

- A line AB 60 mm long makes 45° and 30° angles with the V.P. and the H.P. respectively. Draw the projections and determine its traces when the end point A is 10 mm in front of V.P. and 20 mm above the H.P. [14M]
- Draw the projections of a rhombus having diagonals 125 mm and 50mm long, the smaller diagonal of which is parallel to both the principal planes, while the other is inclined at 30° to the HP. [14M]

UNIT – III

- A square pyramid, base 40 mm side and axis 90 mm long, has a triangular face on the ground and vertical plane containing the axis makes an angle of 45° with the VP. Draw its projections. [14M]
- Draw the top view and front view of a right circular cylinder, base diameter 40 mm and axis 65 mm long, when it is resting on its circular rim in such a way that its axis makes an angle of 30° with H.P. and the top view of its axis is inclined at an angle of 45° to V.P. [14M]

UNIT – IV

- A square prism of 50 mm edge and 65 mm height stands on one of its faces on the H.P. with a vertical face making 45° angle with V.P. A horizontal hole of 25 mm diameter is drilled centrally through the prism such that the hole passes through the opposite vertical edges of the cube. draw the development of the surface of the prism and the hole. [14M]

8. Draw the isometric view of a cone, base 40 mm diameter and axis 55 mm long [14M]
- i. when its axis is vertical and
 - ii. when its axis is horizontal.

UNIT – V

9. Draw the following views of the object shown in Figure 1. [14M]
- i. Front view
 - ii. Top view
 - iii. Side view

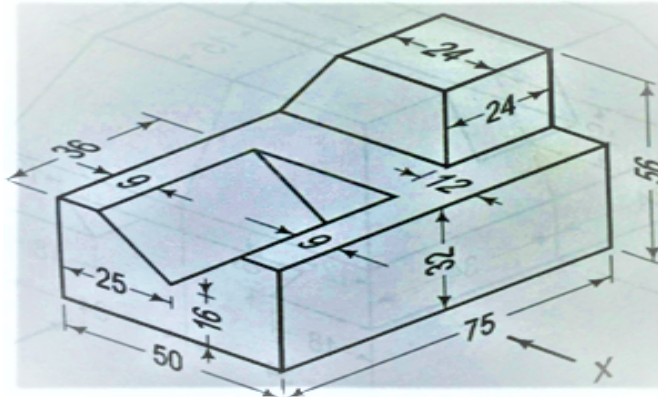


Figure 1

10. Draw the following views of the object shown in Figure 2. [14M]
- i. Front view
 - ii. Top view
 - iii. Side view

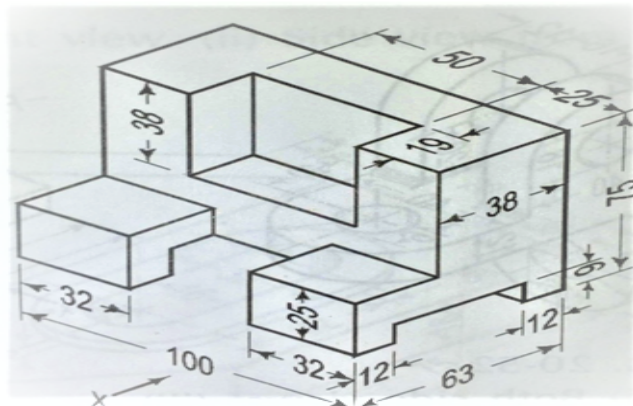


Figure 2

