Roll No.....

Total No. of Questions : 09] [Total No. of Pages : 02

Paper ID [ME102]

(Please fill this Paper ID in OMR Sheet)

B. Tech. (Sem. - 1st/2nd)

ENGINEERING DRAWING (ME - 102) (New)

Time : 03 Hours **Maximum Marks : 60**

Instruction to Candidates:

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

Section - A

Q1) ***(Marks : 2 Each)***

a) What do you mean by conventions?

b) What is the meaning of 7:4 ratios in lettering?

c) What are uses of diagonal scale?

d) What are different methods of development of surfaces?

e) What is cutting plane?

f) What are oblique solids?

g) What is difference between a plane and a lamina?

h) Define a straight line?

i) How a point is determined in space?

j) Draw a symbol of third angle projections?

Section - B

(Marks : 8 Each)

Q2) A straight line AB 50mm long makes an angle of 45° to the VP. The end A is 15 mm from the VP and 12 mm from the HP. Draw the top view and front view of the line AB.

Q3) Draw free hand sketches of foot step bearing (Front and top views). Show the mean dimensions also.

Q4) Write in double stroke vertical and inclined style, the following statements using ratio 7:4.

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Q5) A vertical cylinder of 45 mm diameter and height 70 mm resting on its base on H. P, is completely penetrated by another cylinder of same diameter and length. Their axes bisect each other at right angles and are parallel to V.P. Draw their projections showing lines of interpenetration on two cylinders?

Section - C

(Marks : 8 Each)

Q6) Draw the projections of a square pyramid of base edges 30 mm and axis 54 mm, resting on its base on HP with one base edges parallel to VP and axis perpendicular to the HP.

Q7) (a) A square prism of side 30 mm 40 mm height is resting on HP. A vertical square bore of 10 mm side is cut through its face reaching other square face of the prism. Draw the isometric projection of the prism.

(b) A cube of 40 mm edges is resting on its one of its faces on HP with a vertical face inclined to 30° to VP. It is cut by a section plane parallel to the VP and passes 15 mm away from the axis. Draw its top view and sectional front view.

Q8) An equilateral triangle of 30 mm sides has a corner in VP and 20 mm away for HP. Draw its projections and traces when the plane is parallel to the HP and one of its sides inclined at 45° to the VP.

Q9) A pentagon prism of 25 mm base edges and 50 mm long, resting on its base with an edge of base at 45° to the VP. The prism is cut by a section plane V.T. inclined at 30° to the HP and passes through a point 25 mm from the base along its axis. Develop its lateral surface of the truncated prism.