

Total No. of Questions : 5

Total No. of Printed Pages : 6

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B.E. (IInd Sem.) (CGPA) Mech. Engg. Exam.-2015

ENGINEERING GRAPHICS

Paper : M-205

Time Allowed : Three Hours

Maximum Marks : 60

Note : Assume suitable data.

Attempt all question.

All question carry equal marks.

- Q.I A pentagonal pyramid, base 30 mm side and axis 60 mm long has one of its triangular faces in the V.P. and the edge of the base contained by that face makes an angle of 30° with the HP. Draw its projections. 1

or

A hexagonal pyramid, base 30 mm side and axis 60 mm long, has one of its slant edges on the

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(2)

ground. A plane containing that edge and the axis is perpendicular to the HP and inclined at 45° to the V.P. Draw its projections. Assume the pyramid to be resting on the ground on its base with a side of the base parallel to the V.P. 10

- Q.II A square prism, base 40 mm side, axis 80 mm long, has its base on the HP and its faces equally inclined to the V.P. It is cut by a plane, perpendicular to V.P. inclined at 60° to the HP and passing through a point on the axis, 60 mm above the HP. Draw its front view, sectional top view, and true shape of the section. 10

or

A cone, base 70 mm diameter and axis 85 mm long is resting on its base on the HP. It is cut by a section plane perpendicular to the VP inclined at 45° to the HP and cutting the axis at a point 35 mm from the apex. Draw its front view, sectional top view and true shape of the section. 10

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(3)

Q.III Draw the development of the lateral surface of the part P of the square pyramid shown in figure 1.

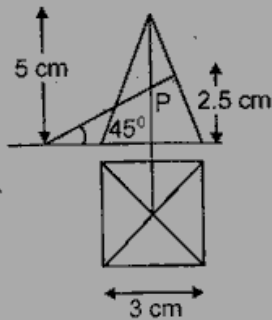


Figure -1

or

Draw the development of the lateral surfaces of the truncated cone shown in figure 2. 10

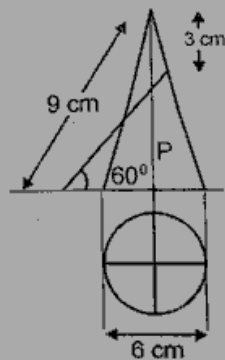


Figure -2

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Q.IV Draw the isometric projection of a sphere resting centrally on the top of a cube, the front view of which is shown in figure 3.

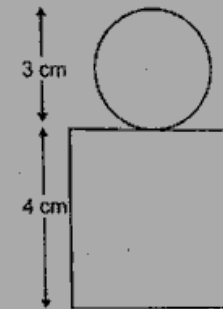


Figure -3

or

Draw the isometric view of the casting. Two views of which are shown in figure 4. (all dimensions in mm).

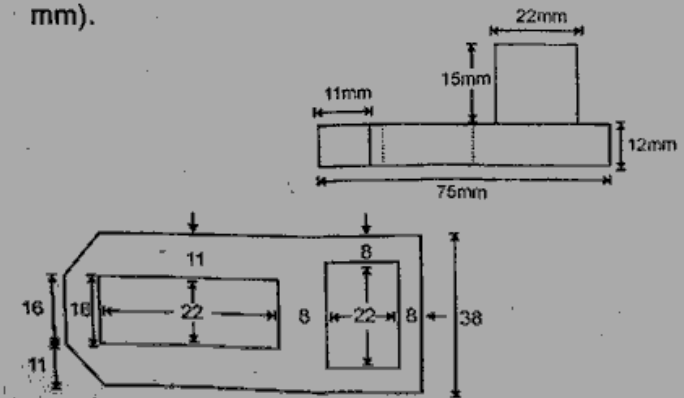


Figure-4

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Q.V Details drawing of foot step bearings are given in figure 5. Assemble them and draw— 20

- (i) Left half sectional front view
- (ii) Top view

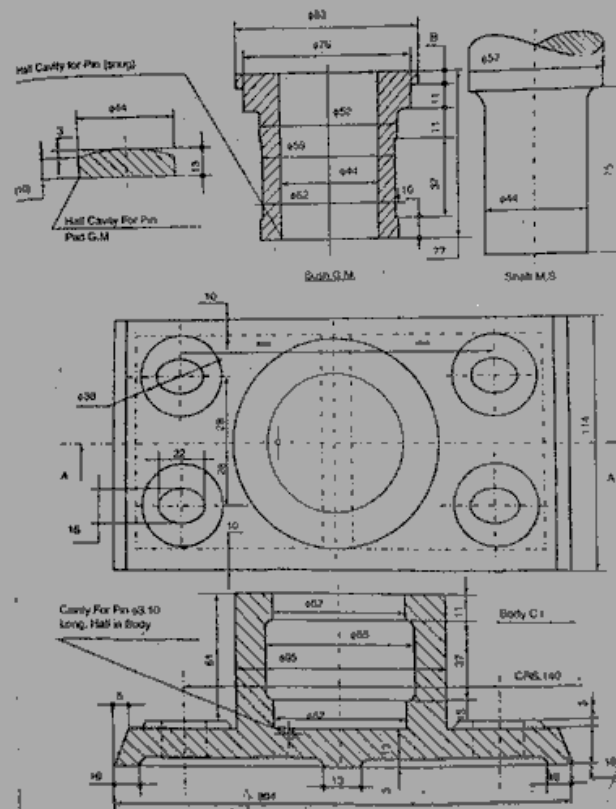


Figure-5

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(6)

or

Detail drawing of main parts of a stuffing box are given in figure 6. Assemble them and draw— 20

- (i) Right half sectional front view
- (ii) Top view

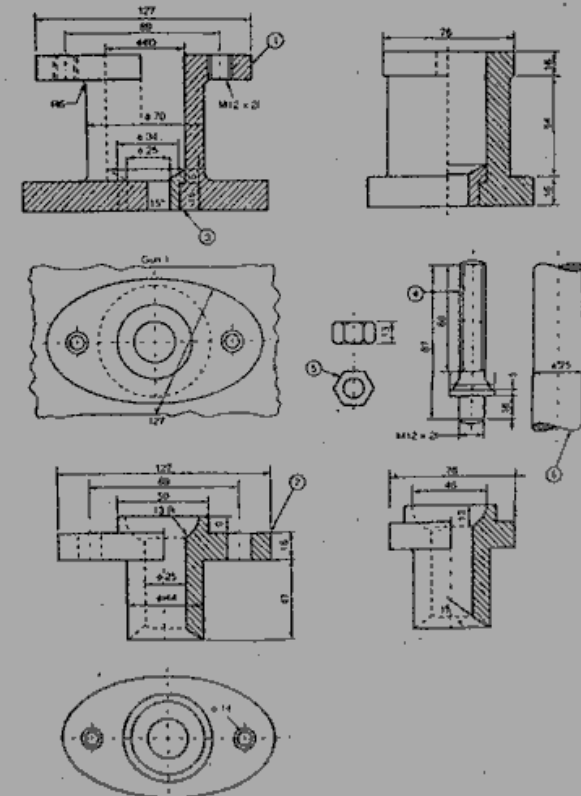


Figure-6