

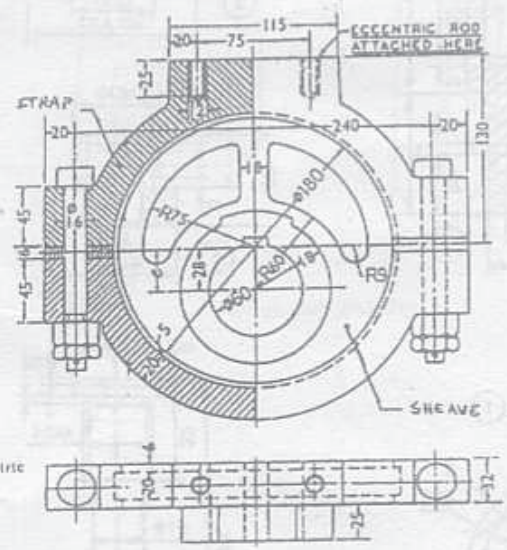
- N.B. (1) Question No. 1 is compulsory.
 (2) Solve any four questions from remaining six questions.
 (3) Use your judgement for any unspecified dimension.
 (4) Use only drawing sheets for answering.

S.E (M) III Old m/c Drawing - 2915709 MASTER

1. (a) A vertical cone, diameter of base 70 mm and axis 90 mm long, is completely penetrated by a cylinder of 40 mm diameter. The axis of the cylinder is parallel to the H.P. and V.P. and intersects the axis of cone at a point 26 mm above the base. Draw the projections of the solids showing curves of intersection. 10
- (b) A vertical square prism, base 50 mm side and 90 mm height has one of its face inclined at 30° to the V.P. It is completely penetrated by another square prism, base 40 mm side and faces of which are equally inclined to the V.P. The axes of two prisms are parallel to V.P. and bisect each other at right angles. Take a suitable length for the prism. Draw the projection showing lines of intersection. 10

2. Figure shows, Simple Eccentric. Draw the following :—

- (a) Strap : 6
 (i) Sectional front view/ Upper half in section 4
 (ii) Right side view 2
 (iii) Top view. 2
- (b) Sheave : 4
 (i) Front view 4
 (ii) Side view. 4

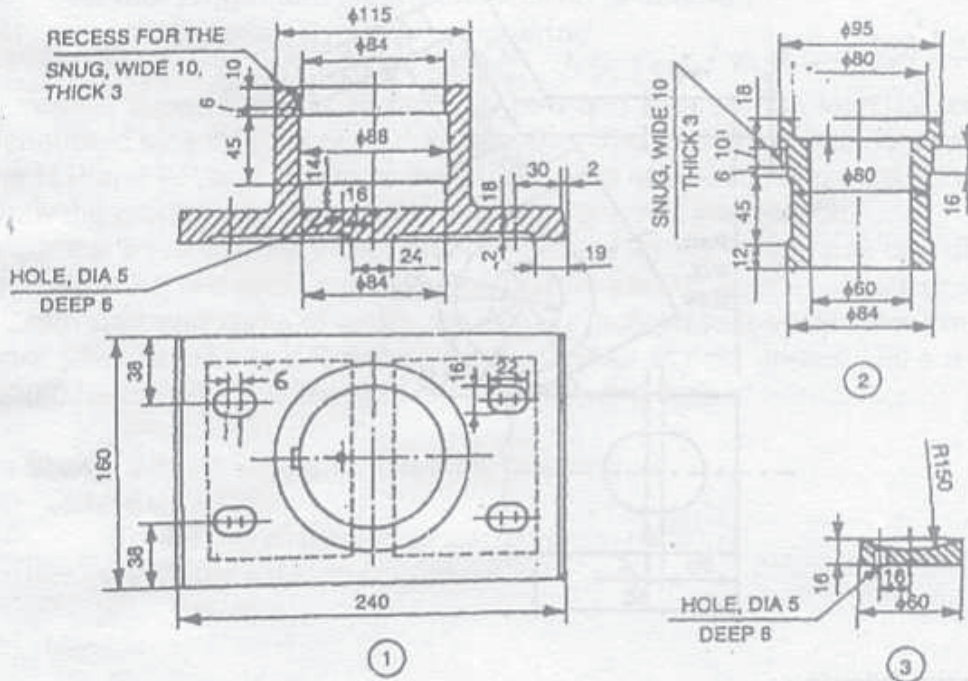


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5. Figure shows the details of "Foot step bearing". Assemble all the parts and draw the following view :—

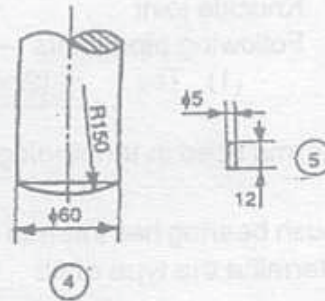
- (a) Sectional Front View
- (b) Top View.

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8



Parts list

Sl. No.	Name	Matl.	Qty.
1	Body	Cast iron	1
2	Bush	Brass	1
3	Disc	P Bronzo	1
4	Shaft	Mild steel	1
5	Pin	Mild steel	1

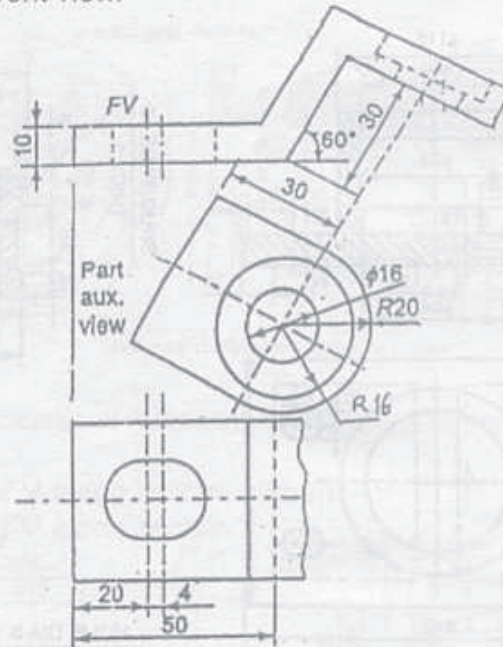


Foot-step bearing

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6. (a) Figure shows front view, Auxillary view and Partial top view of a block. Draw the following :—

- (i) Complete Top view 4
- (ii) View from right 4
- (iii) Given front view. 2



- (b) Draw the following :—
- (i) Knuckle joint 4
 - (ii) Following pipe joints :— 6
 - (1) Tee
 - (2) Elbow
 - (3) Coupler.

7. (a) Define terms used in terminology for dimensional tolerances with neat sketch. 10

(b) (i) A bush bearing has internal diameter $25^{+0.025}_{+0.000}$ and the shaft diameter $25^{-0.02}_{-0.04}$. Determine the type of fit. 5

(ii) A pulley is to be fixed on a shaft internal diameter of the hole is $30^{+0.023}_{+0.000}$. Shaft diameter is $30^{+0.042}_{+0.028}$. Determine the type of fit. Explain with neat sketch. 5
