

Total No. of Questions—6]

[Total No. of Printed Pages—4

BE-II/6(A)

212374

MACHINE ENGINEERING—COURSE NO. M-206

Time Allowed—3 Hours

Maximum Marks—100

Note : — Attempt any four questions. Question No. 1 is compulsory. Assume suitably any missing data.

1. Details of a Foot Step Bearing (Pivot Bearing) are shown in the Figure 1. Draw the following assembly views :

(a) Front view-right half in section

(b) Top view

(c) Side view.

Also prepare a bill of material.

(30,15,10)

2. Draw :

(i) the view from the front,

(ii) sectional view from above and

[Turn over

(iii) the view from the right of a depth stop shown in Figure 2. 15

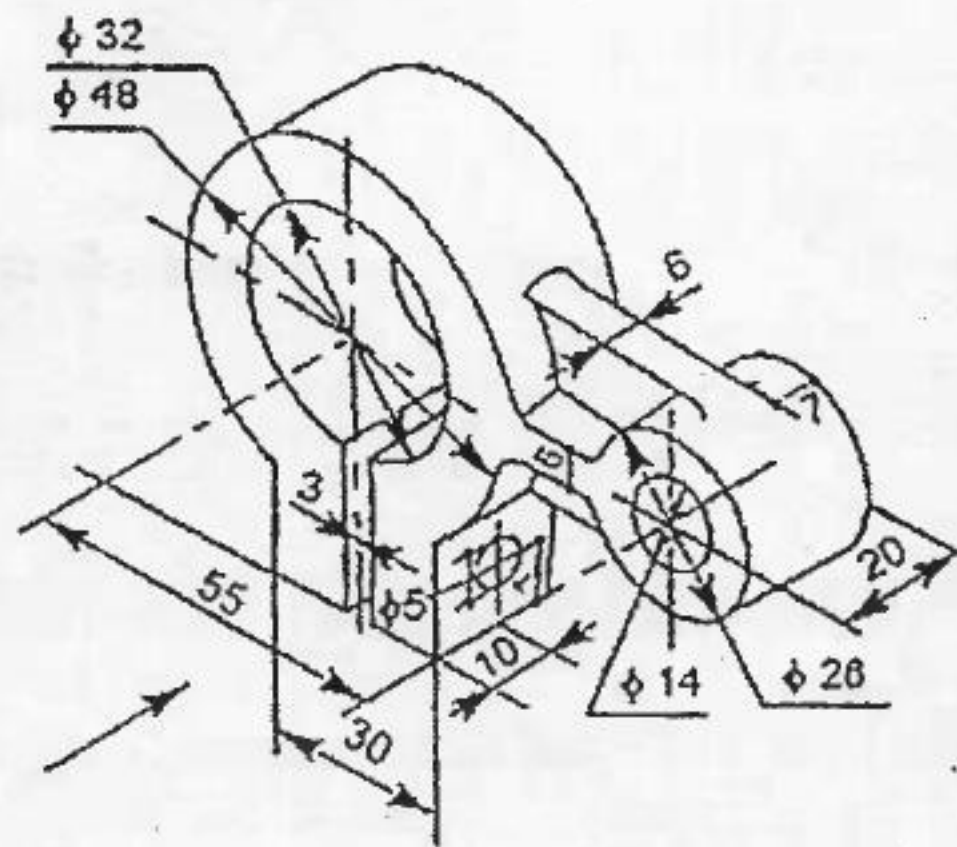


Fig. 2 : Depth Stop

Draw sectional front elevation and side view of a Knuckle joint on proportional scale. 15

4. Draw :

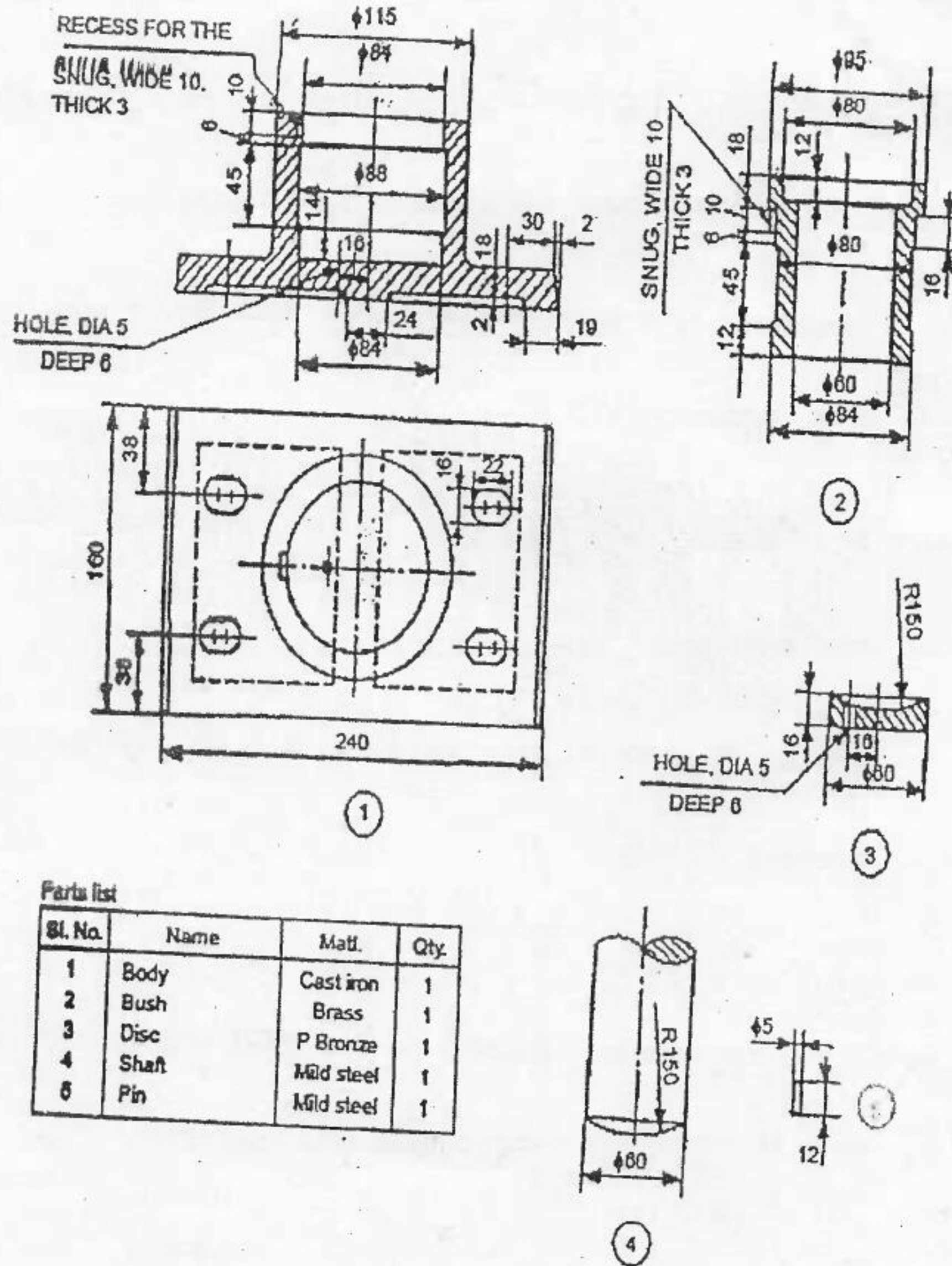
(a) sectional front view, and

(b) Top view, of the single riveted, double strap butt joint

to join plates of thickness 10 mm

5. Sketch any *one* method of strengthening cast iron steam pipe joints so that it will withstand higher pressures. 15
6. Sketch the necessary view of a step cone pulley with four steps, operating with : 15
- (a) flat belts and
 - (b) V-belts.

Assume that the pulleys are to be mounted on shafts of diameter 50 mm.



Parts list

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

Figure 1 : Details of Foot-step Bearing