

***B.Tech. Degree III Semester Examination in  
Marine Engineering December 2018***

**MRE 1306 MACHINE DRAWING  
(2013 Scheme)**

Time : 4 Hours

Maximum Marks : 100

- I. Two vertical plates each 30 mm thick are bolted by means of a M20 hexagonal bolt, a nut and a washer. Take the length of the bolt as 90 mm and the length of the thread of the bolt as 40 mm. Show: (20)
- (i) Sectional view of the assembly showing the plates in section.
  - (ii) An end view looking from the nut side.
- OR
- II. Draw the following views of the cast iron block given in the figure 1: (20)
- (i) Front view looking in the direction of F
  - (ii) Left side view.

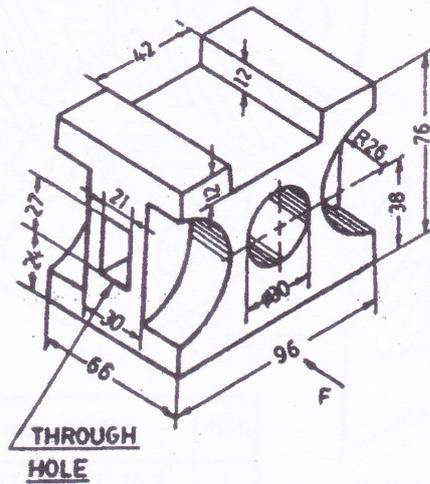


Figure 1: Cast iron block

- III. Draw the following views of footstep bearing shown in the figure 2. (30)
- (i) Left half sectional elevation
  - (ii) Full plan

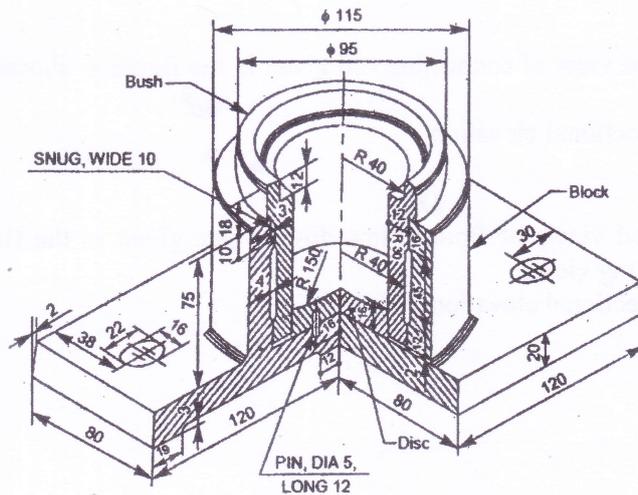


Figure 2: Footstep bearing

OR

IV. Assemble the Flanged coupling given in the figure 3 and draw the following views. (30)

- (i) Top half sectional elevation.
- (ii) End view looking from the right.

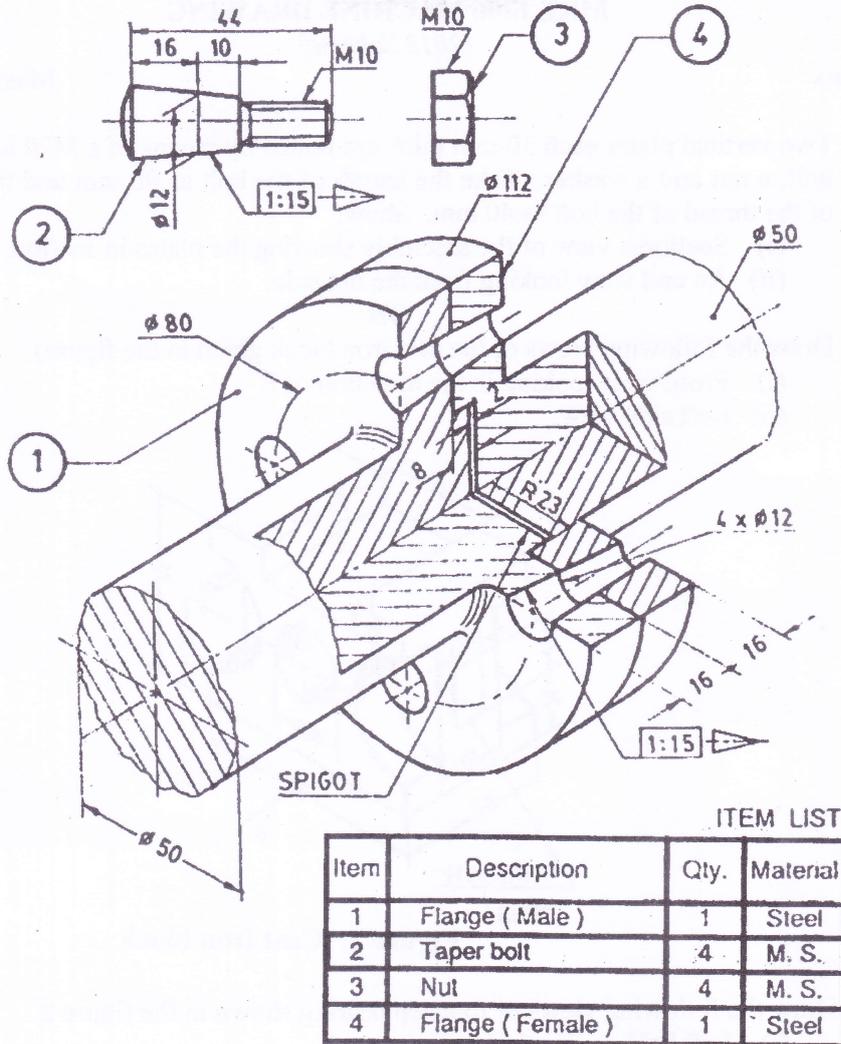


Figure 3: Flanged Coupling (Solid type)

V. Draw the assembled view of connecting rod given in the figure 4 showing the following views: (50)

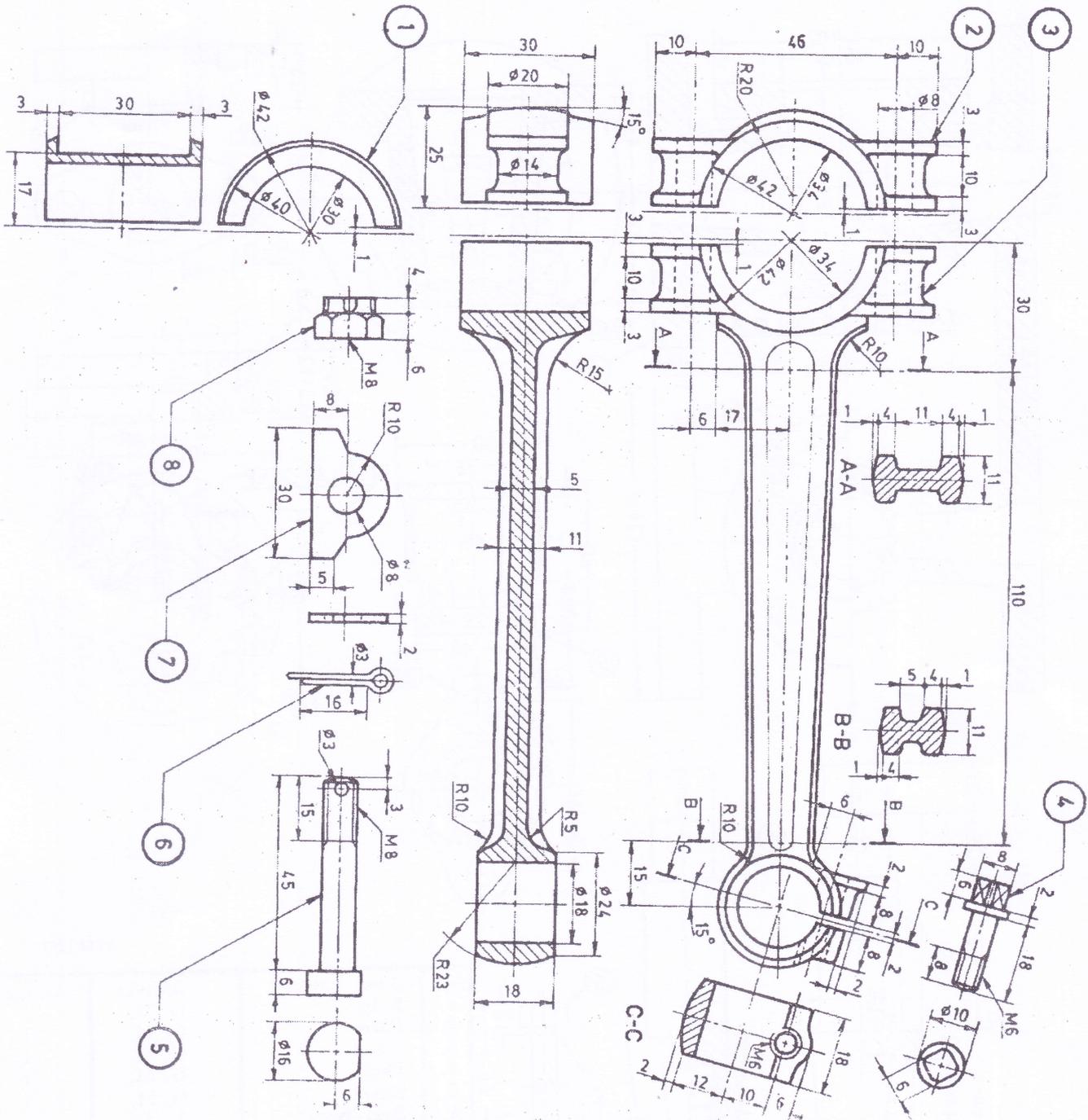
- (i) Top half sectional elevation
- (ii) Full Plan

OR

VI. Draw the assembled views of Boiler blow down valve given in the figure 5 showing the following views: (50)

- (i) Left half sectional elevation
- (ii) Full Plan.

(Contd...3)



Item	Description	Qty.	Material
1	Big end bush (Half)	2	Bronze
2	Cap	1	Duralumin
3	Body	1	Duralumin
4	Set screw	1	Steel
5	Bolt	2	Steel
6	Split pin	2	M.S.
7	Shim	2	Bronze
8	Castle nut	2	Steel

Figure 4: Connecting rod

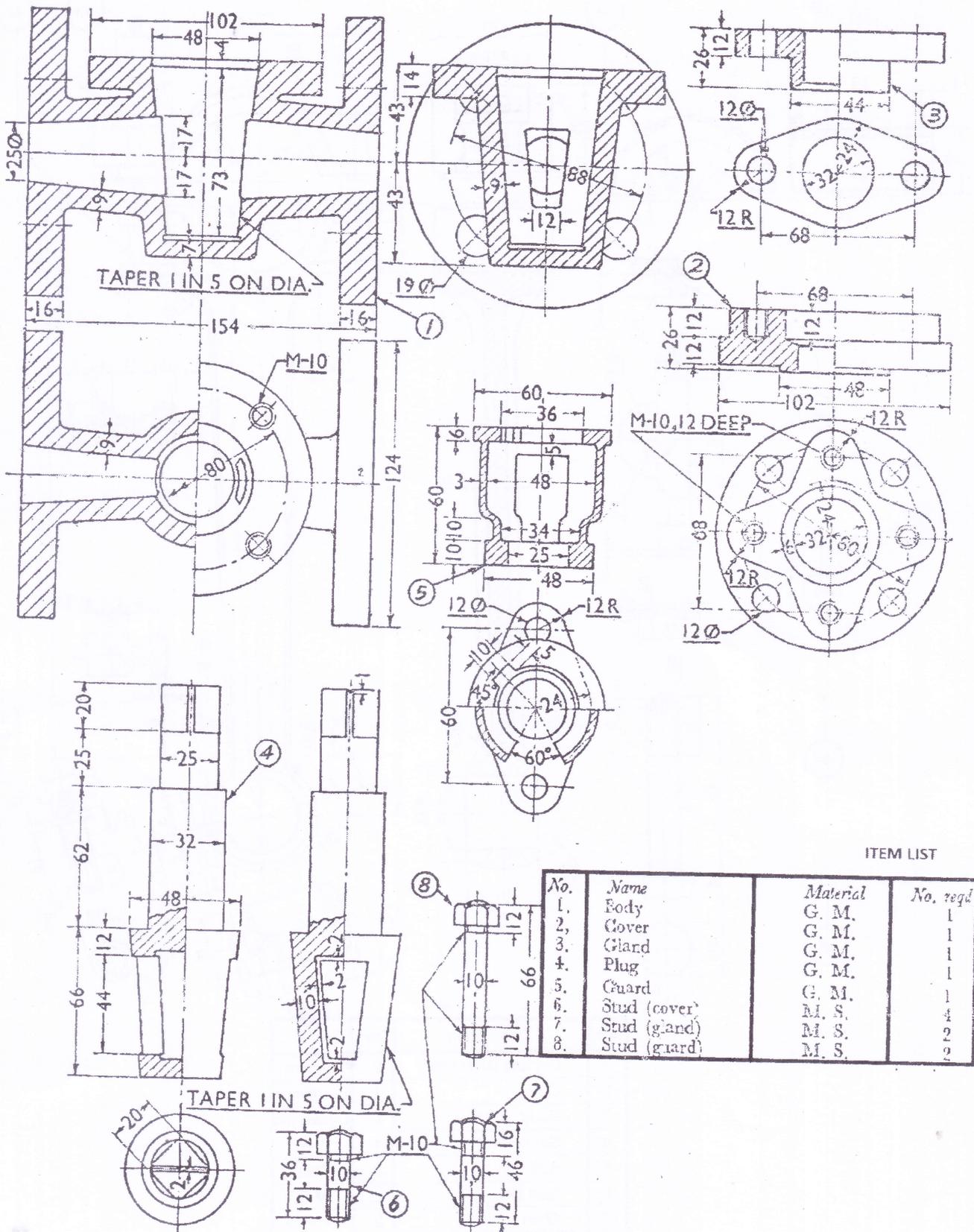


Figure 5: Boiler blow down valve