

## ***B.Tech Degree III Semester Examination in Marine Engineering, March 2008***

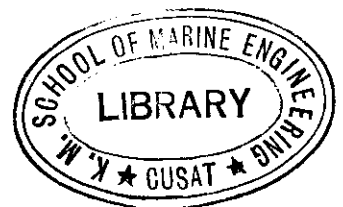
### **MRE 306 MACHINE DRAWING**

Time : 4 Hours

Maximum Marks : 100

- I. A square headed bolt with a square nut and a washer, is used to connect two vertical blocks, each 25 mm thick. Draw the full sectional elevation and end view from the nut side keeping the head of the bolt as seen across the corners while the nut as seen across the flats in the elevation.
- |                    |   |       |
|--------------------|---|-------|
| Size of the bolt   | = | M16   |
| Length of the bolt | = | 75 mm |
| Thread length      | = | 36 mm |
- Assume that the bolt has a chamfered end. (20)
- OR**
- II. Sketch two types of detachable foundation bolts. (20)
- III. An isometric view of a Flanged Coupling is shown in the Figure 1. Draw the top half sectional elevation of the coupling. Also add an end view looking from the bolt head size. (30)
- OR**
- IV. An isometric view of a bushed bearing is shown in the Figure 2. Draw the following views:
- |      |  |
|------|--|
| (i)  | Right half sectional elevation in the direction F, |
| (ii) | Top half sectional plan.                           |
- (30)
- V. Figure 3 shows details of a I.C. engine connecting rod assembly. Draw a bottom half sectional elevation and an end view from the small end side. (50)
- OR**
- VI. Figure 4 gives the details of a Rams bottom safety valve. Draw the following assembled views:
- |      |                                |
|------|--------------------------------|
| (i)  | Right half sectional elevation |
| (ii) | End view.                      |
- (50)

(Turn Over)



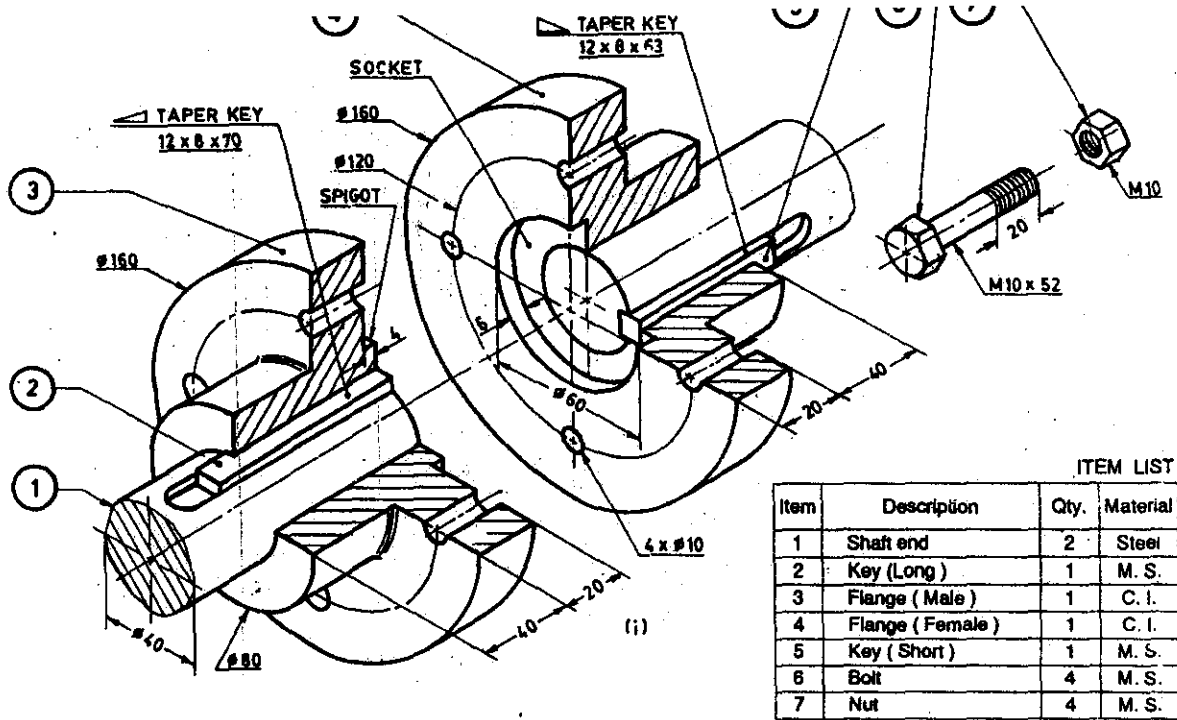


Figure 1

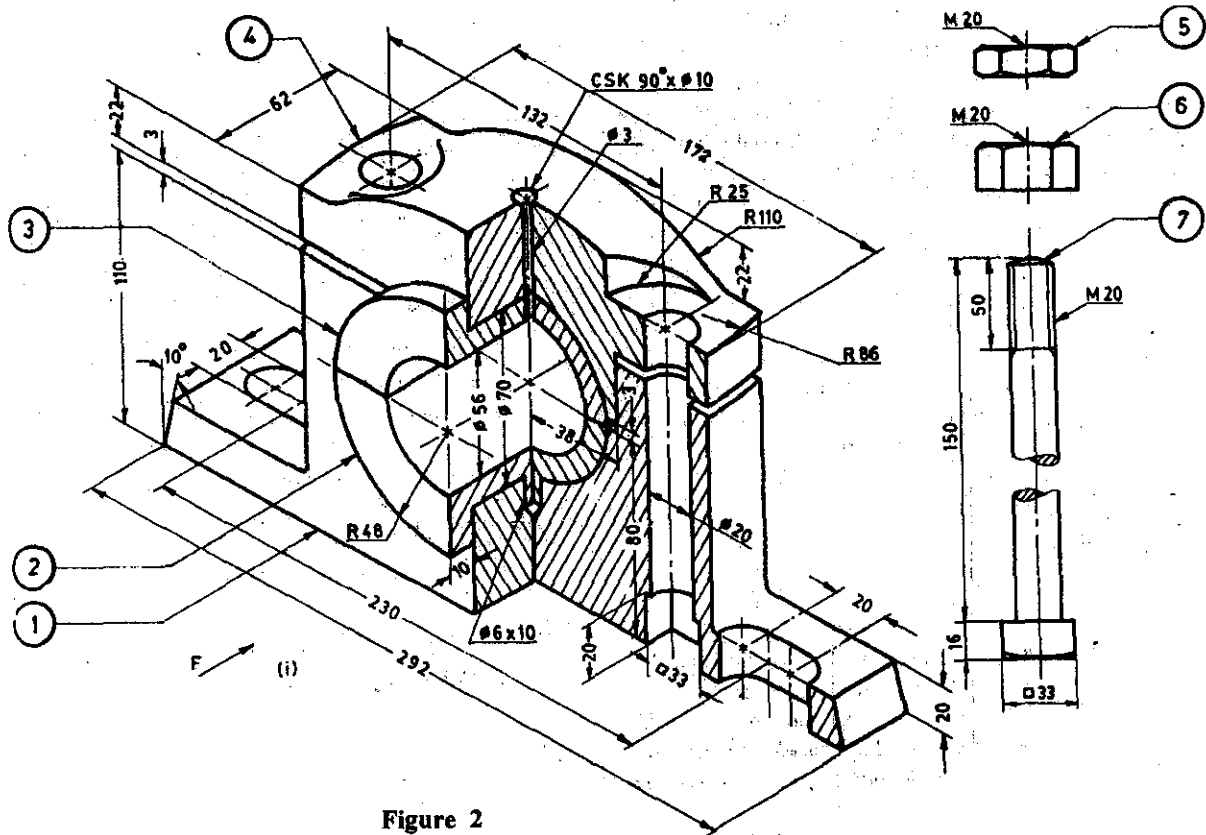


Figure 2

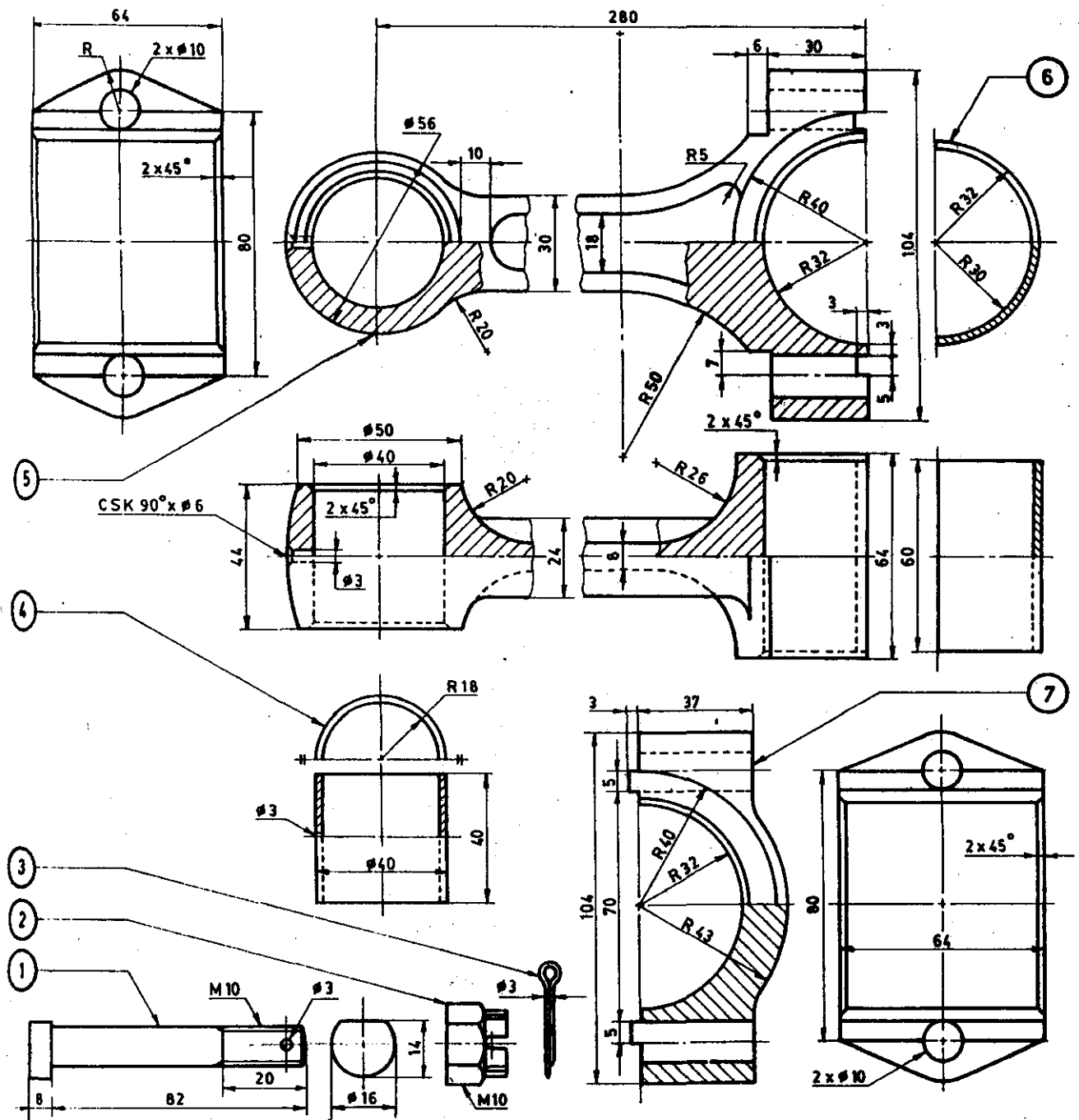
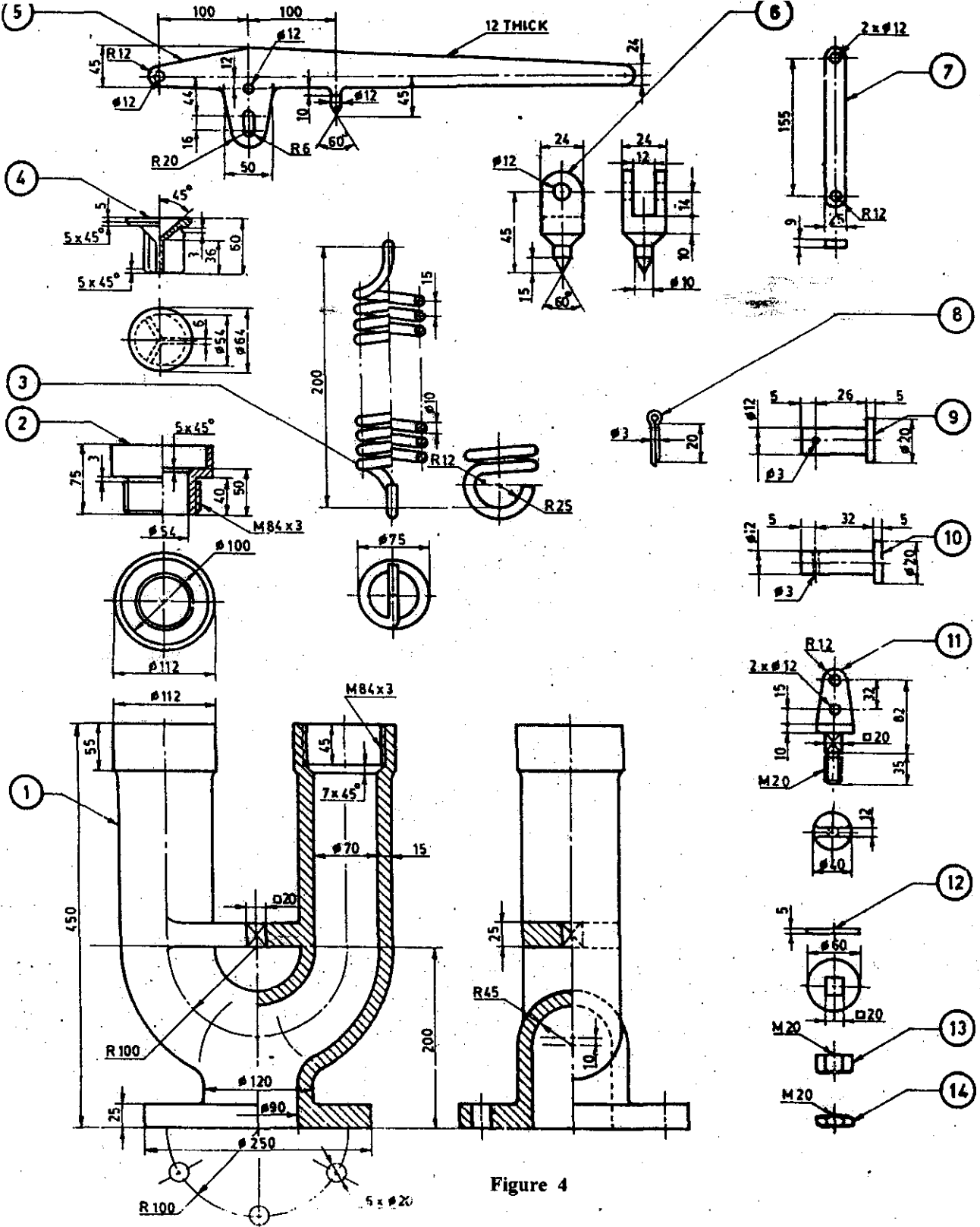


Figure 3

(Contd....4)



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