

**B.Tech. Degree III Semester Examination in Marine Engineering
December 2012**

MRE 306 MACHINE DRAWING

4
Time: 3 Hours

Maximum Marks: 100

I. The isometric view of a component is shown in figure 1 and 2. Draw its orthographic projections. (20)

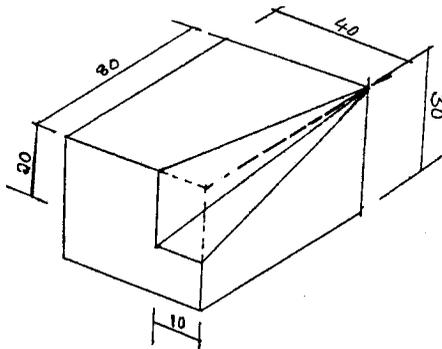


Figure 1

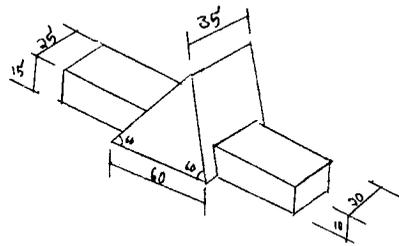
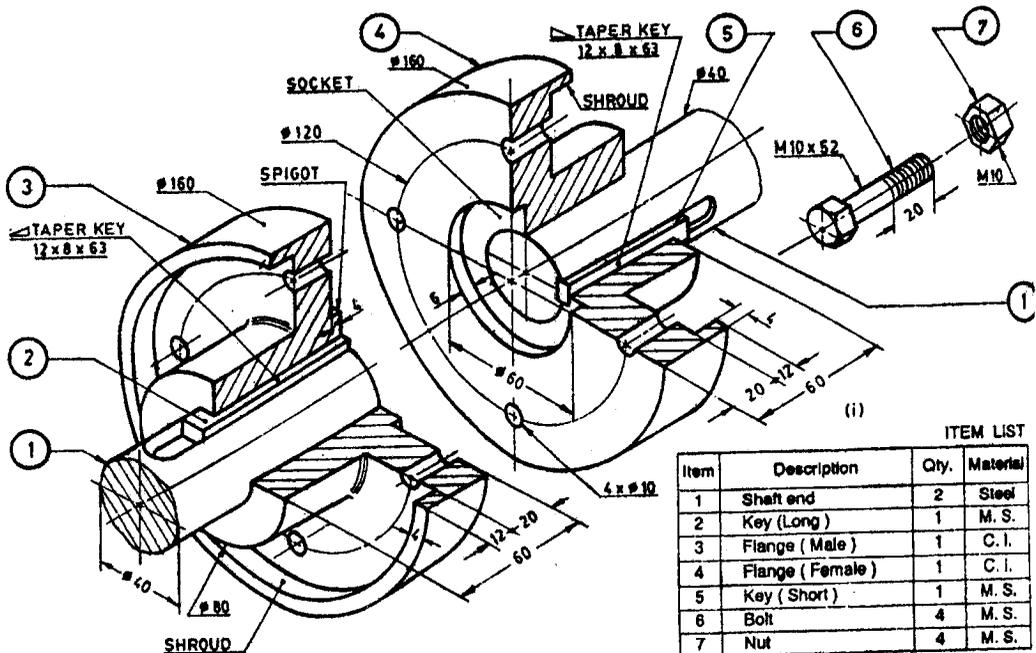


Figure 2

OR

II. Sketch any three types of locking arrangements of nuts. (20)

III. Details of coupling is given in figure. Draw top half sectional elevating of the assembly. (30)



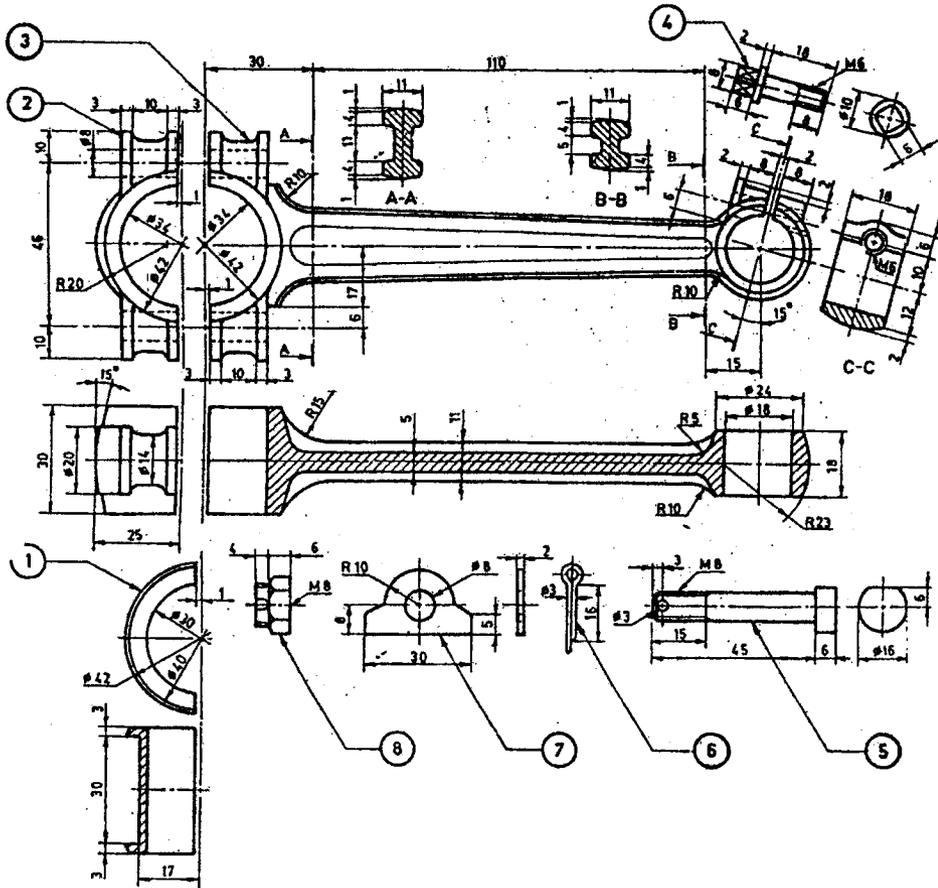
ITEM LIST

Item	Description	Qty.	Material
1	Shaft end	2	Steel
2	Key (Long)	1	M. S.
3	Flange (Male)	1	C. I.
4	Flange (Female)	1	C. I.
5	Key (Short)	1	M. S.
6	Bolt	4	M. S.
7	Nut	4	M. S.

OR

(P.T.O)

VI. Draw assembled drawing of IC engine connecting rod. Details shown in figure giving elevation with bottom half in section. (50)



I.C. ENGINE CONNECTING ROD
(TYPE-2)

ITEM LIST

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

