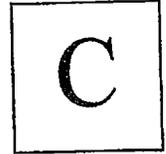


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**B.Tech. Degree III Semester Regular/Supplementary Examination
in Marine Engineering November 2024**

**19-208-0306 MACHINE DRAWING
(2019 Scheme)**

Time: 4 Hours

Maximum Marks: 60

Course Outcome

On successful completion of the course, the students will be able to:

- CO1: Convert a pictorial view into orthographic view.
- CO2: Draw the different views of threaded nuts and bolts.
- CO3: Draw the orthographic views of cotter joints, pipe joints, couplings and bearings.
- CO4: Draw the assembly drawing of machine parts.

Bloom's Taxonomy Levels (BL): L1 – Remember, L2 – Understand, L3 – Apply, L4 – Analyze, L5 – Evaluate, L6 – Create
PI – Programme Indicators

(Answer ALL questions)

I. (a) Draw the front view of the wall bracket shown in the Figure 1.

Marks	BL	CO	PI
10	L3	1	1

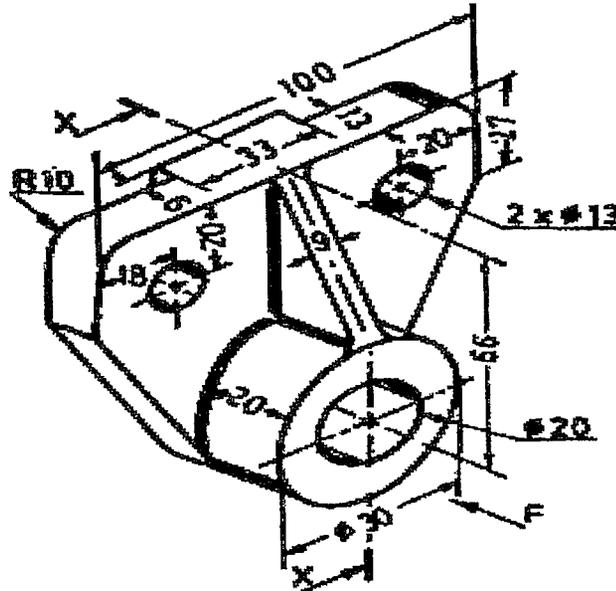


Figure 1

(b) Draw the section of an ACME thread taking a pitch of 30 mm. Indicate all the proportions in the drawing and show minimum three threads.

10	L3	2	1
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OR

(P.T.O.)

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Marks BL CO PI

- II. An isometric view of a sleeve and cotter joint is shown in Figure 2. 20 L3 3 1
 Draw the following views to 1:1 scale:
 (i) Elevation, top half in section.
 (ii) Plan, bottom half in section.

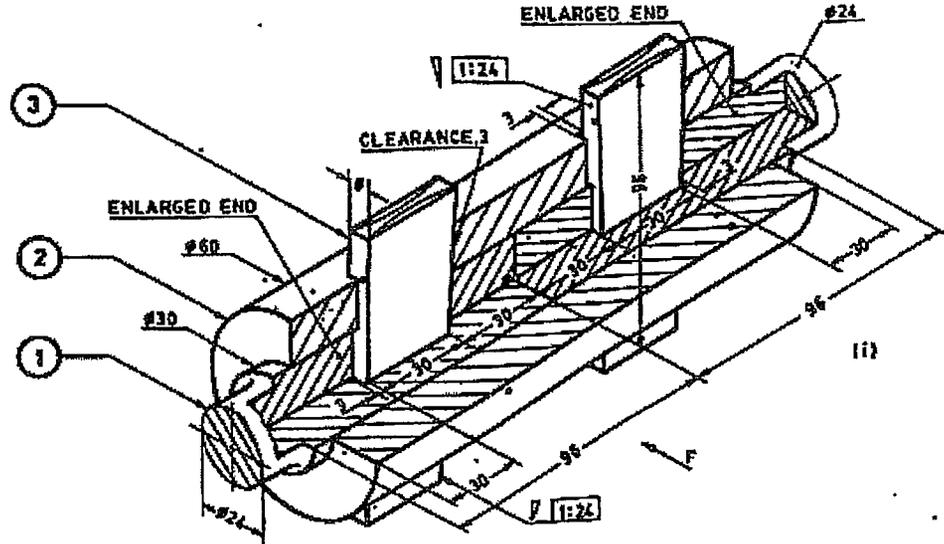


Figure 2

ITEM LIST

Item	Description	Qty.	Material
1	Rod end	2	M.S.
2	Sleeve	1	M.S.
3	Cotter	2	M.S.

- III. (a) Sketch the top half sectional elevation of a close nipple joint for joining a collar and a valve for a pipe line of diameter 25 mm. 12 L3 3 1
 The following dimensions may be taken:
 Outside diameter of the collar = 40 mm.
 Length of the nipple = 40 mm.
 Inside diameter of the nipple = 25 mm.
 Also indicate important dimensions in the drawing.
- (b) An isometric view of a bushed bearing is shown in Figure 3. Draw 13 L3 3 1
 the left half sectional elevation looking in the direction of F.

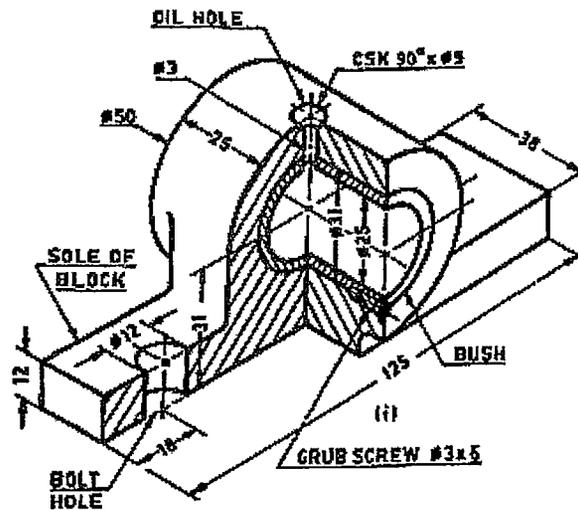


Figure 3
 OR

- IV. An isometric view of a flanged coupling (protected type) is shown in Figure 4. Draw the following views:
- (i) Elevation, top half in section.
 - (ii) End view, looking from left side.

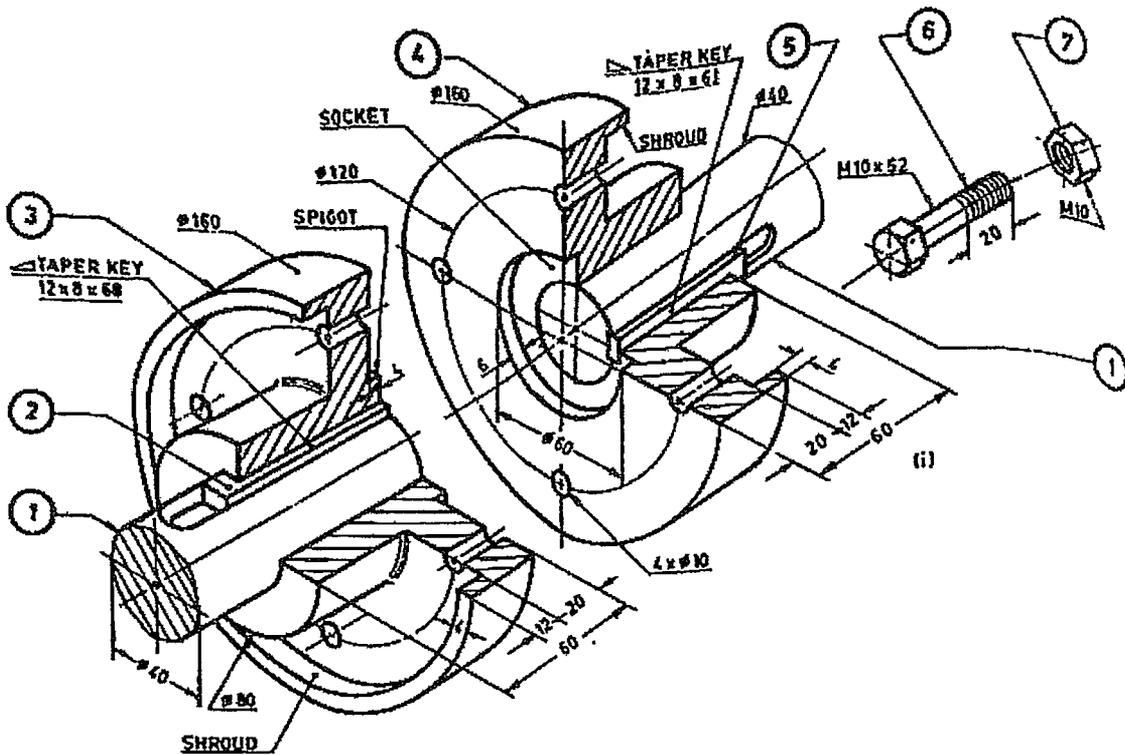


Figure 4

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.

(P.T.O.)

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Marks BL CO PI

VI. Disassembled view of a machine vice is shown in the Figure 6. Assemble the parts and draw the front view. Prepare the BOM.

30 L4 4 2

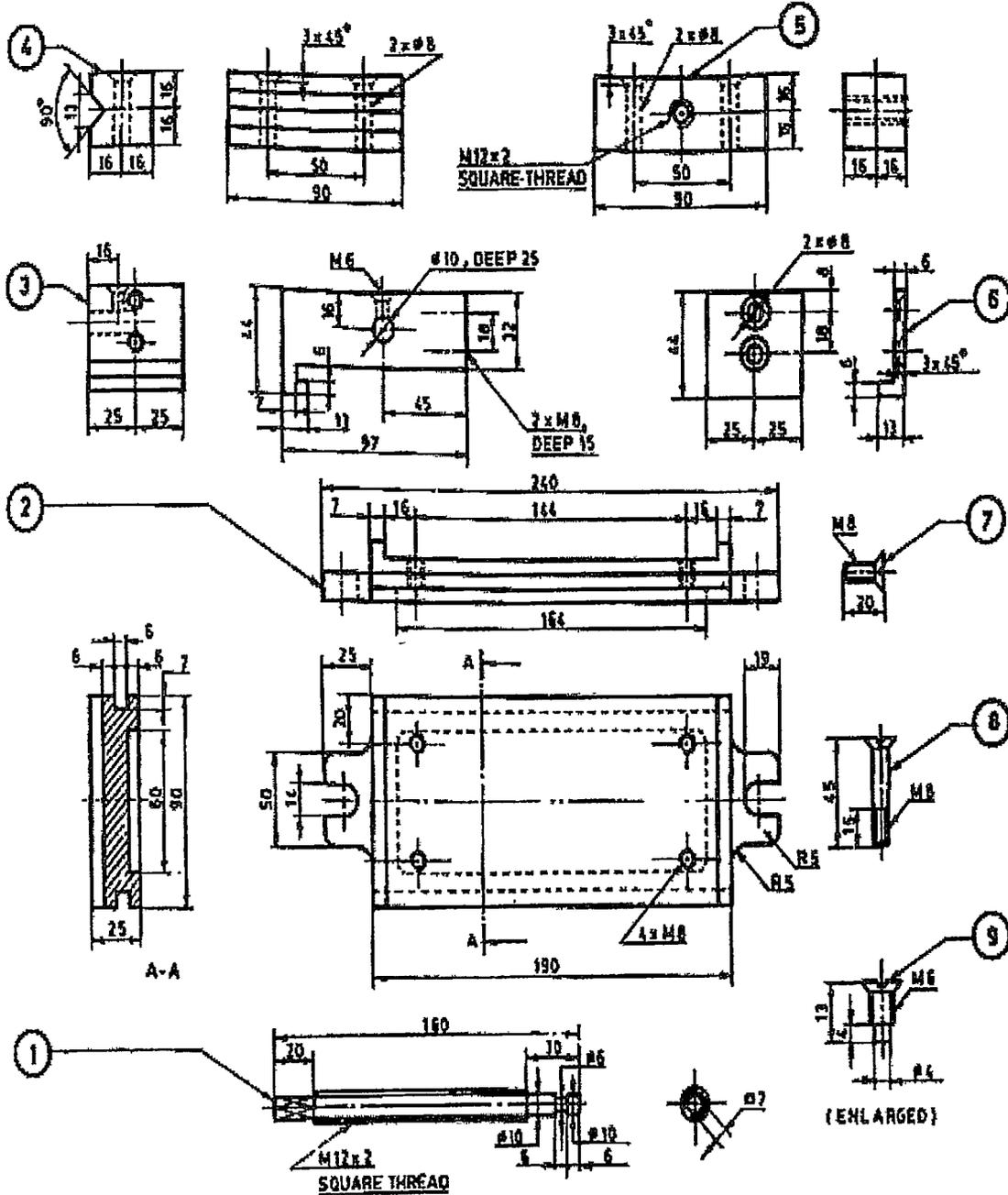


Figure 6

Blooms's Taxonomy Level
L3 – 60%, L4 – 40%.
