

TED (15/19) -3024  
(Revision- 2015/19)

**N21-08459**

Reg.No.....  
Signature.....

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/  
COMMERCIAL PRACTICE – NOVEMBER -2021.

**MACHINE DRAWING**

(Maximum Marks : 75)

[Time : 2.15 hours]

- [Note:1. All dimensions are in mm.  
2. First angle projections is to be followed.  
3. Missing data if any may be suitably assumed.  
4. Both sides of the drawing sheet may be used.  
5. Sketches accompanied]

Marks

**PART-A**

(Answer **any one** out of two questions. Each question carries 20 marks)

**UNIT-I**

- I.** Draw the profile of the following thread forms, take pitch  $p=25$  mm and mark the dimensions in terms of  $p$ .

(a) ISO Metric thread (b) British Association(BA) thread (20)

**OR**

- II.** Draw the sectional elevation and plan of a double riveted (zig zag type) lap joint for joining plates of thickness 12 mm insert all dimensions in terms of the diameter. (20)

**PART-B**

(Answer **any one** out of four questions. Each question carries 40 marks)

**UNIT-II**

- III.** An isometric view of a Gib and cotter joint shown in figure I. Draw top half sectional elevation and end view from left side. (40)

**OR**

- IV.** An isometric view of a flanged coupling (un protected type) shown in figure II.

Draw top half sectional elevation and end view from left side. (40)

**UNIT-III**

- V. Detailed view of a Stuffing box shown in figure III. Assemble the parts and draw left half sectional front view and prepare bill of material. (40)

**OR**

- VI. An isometric view of Foot step bearing is shown in figure IV. Draw the following views of the bearing.

- (1) Right sectional elevation (2) Top view (40)

**PART-C**

(Answer **one** out of two questions. Each question carries 15 marks)

**UNIT-IV**

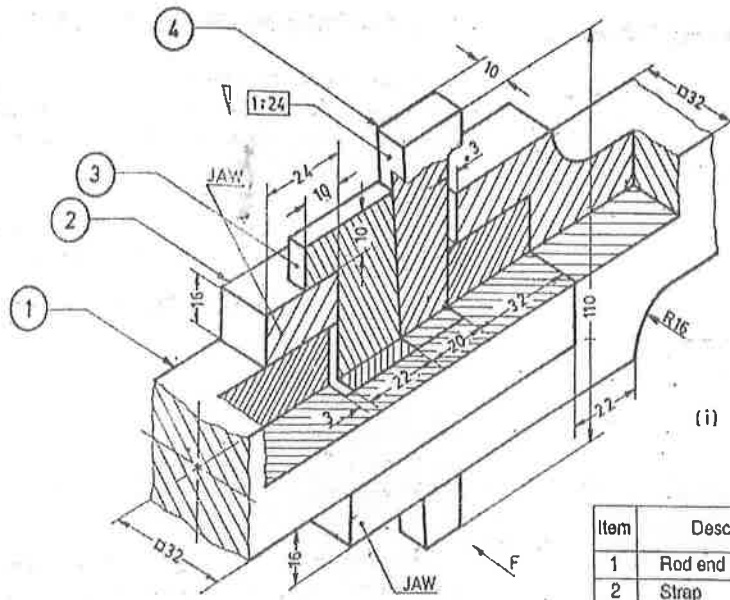
- VII. Draw symbols of the following welded joints.

1. Square butt joint
2. V-butt joint
3. J- butt joint
4. Fillet weld joint
5. Single U-butt joint (15)

**OR**

- VIII. Draw the single line orthographic symbol of the following valves(screwed)

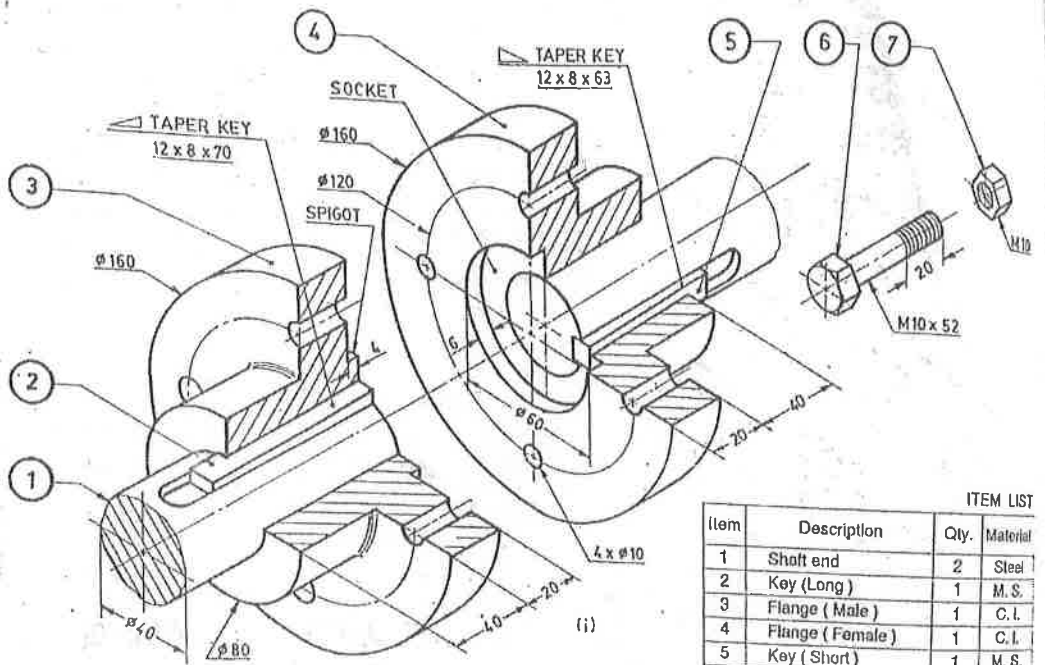
1. Gate valve
2. Globe valve
3. Check valve
4. Angle valve
5. Cross or 3-way valve (15)



ITEM LIST

Item	Description	Qty.	Material
1	Rod end (Square)	1	M. S.
2	Strap	1	M. S.
3	Gib	1	M. S.
4	Cotter	1	M. S.

figure I



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.

figure II

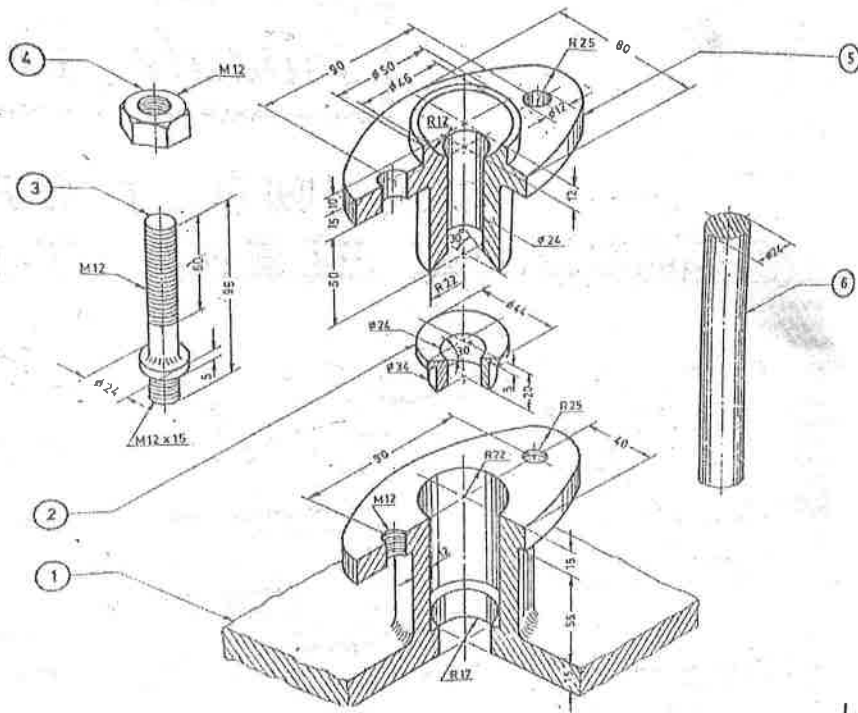


figure III

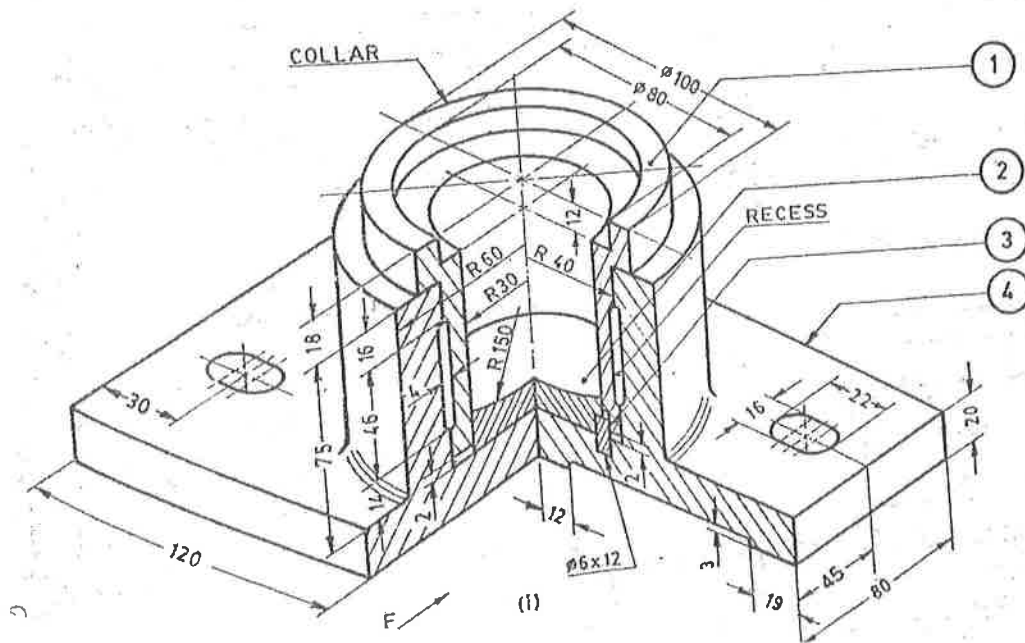


figure IV