

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

A21-07970

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

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – APRIL -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 two views of a hexagonal headed bolt of size M30. The length of the bolt is 80mm and thread length is 54. Indicate all dimensions in terms of diameter of the bolt. (20)

OR

- II.** Draw two views of a single riveted single strap butt joint. Take thickness of the plates as 12mm. Mark the proportions in the drawing. (20)

PART-B

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

UNIT-II

- III.** An isometric view of a Sleeve and cotter joint is shown in figure 1. Draw top half sectional elevation and bottom half sectional plan. (40)

OR

- IV.** Pictorial view of a flanged coupling (unprotected type) is shown in Figure 2. Draw top half sectional elevation and end view. (40)

UNIT-III

V. Detailed view of a foot step bearing is shown in figure 3. Assemble the parts and draw full sectional front view and top view. (40)

OR

VI. Detailed views of a stuffing box is shown in figure 4. Assemble the parts and draw full sectional front and top view. (40)

PART-C

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

UNIT-IV

VII. Draw symbols for the following welded joints.

- 1. Square butt weld 2. Fillet weld 3. Single V butt weld
- 4. Single bevel butt weld 5. Single J butt weld 6. Spot weld (15)

OR

VIII. Draw single line symbols for the following pipe fittings.

- 1. Gate valve 2. Globe valve 3. Check valve
- 4. TEE joint 5. 90° Elbow 6. 45° Elbow (15)

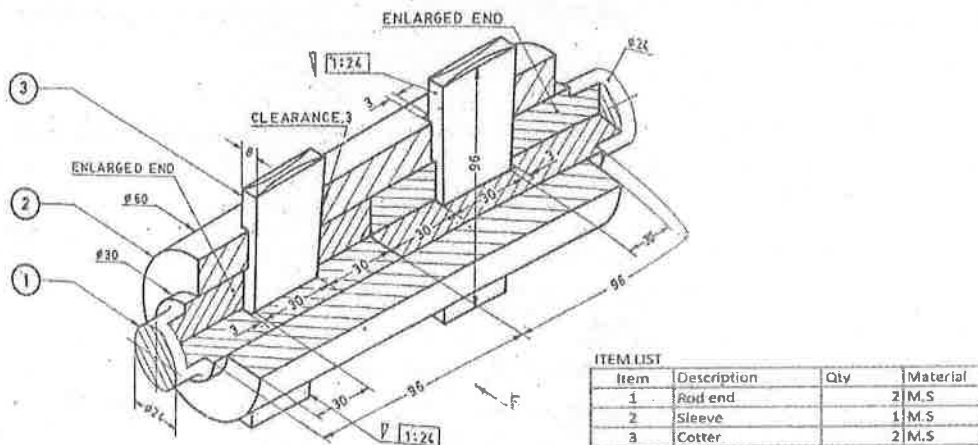
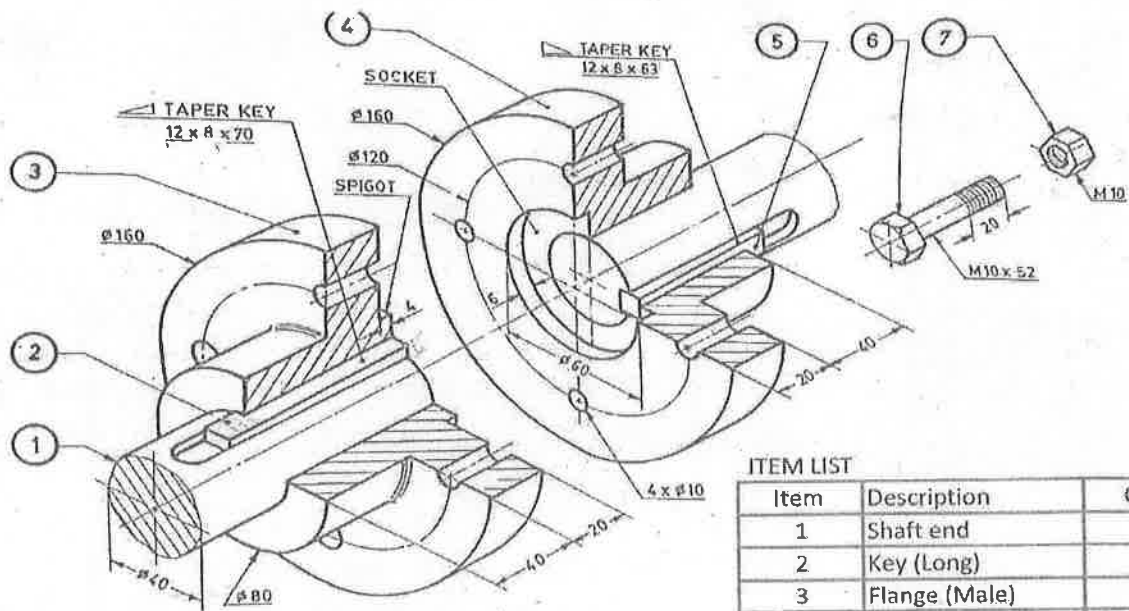


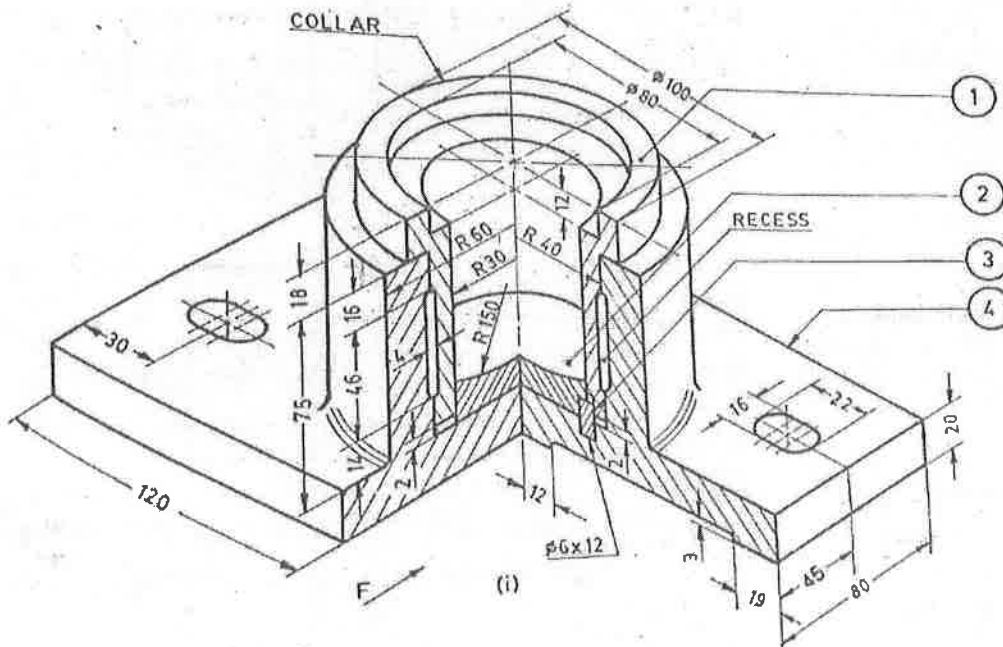
FIGURE .01



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

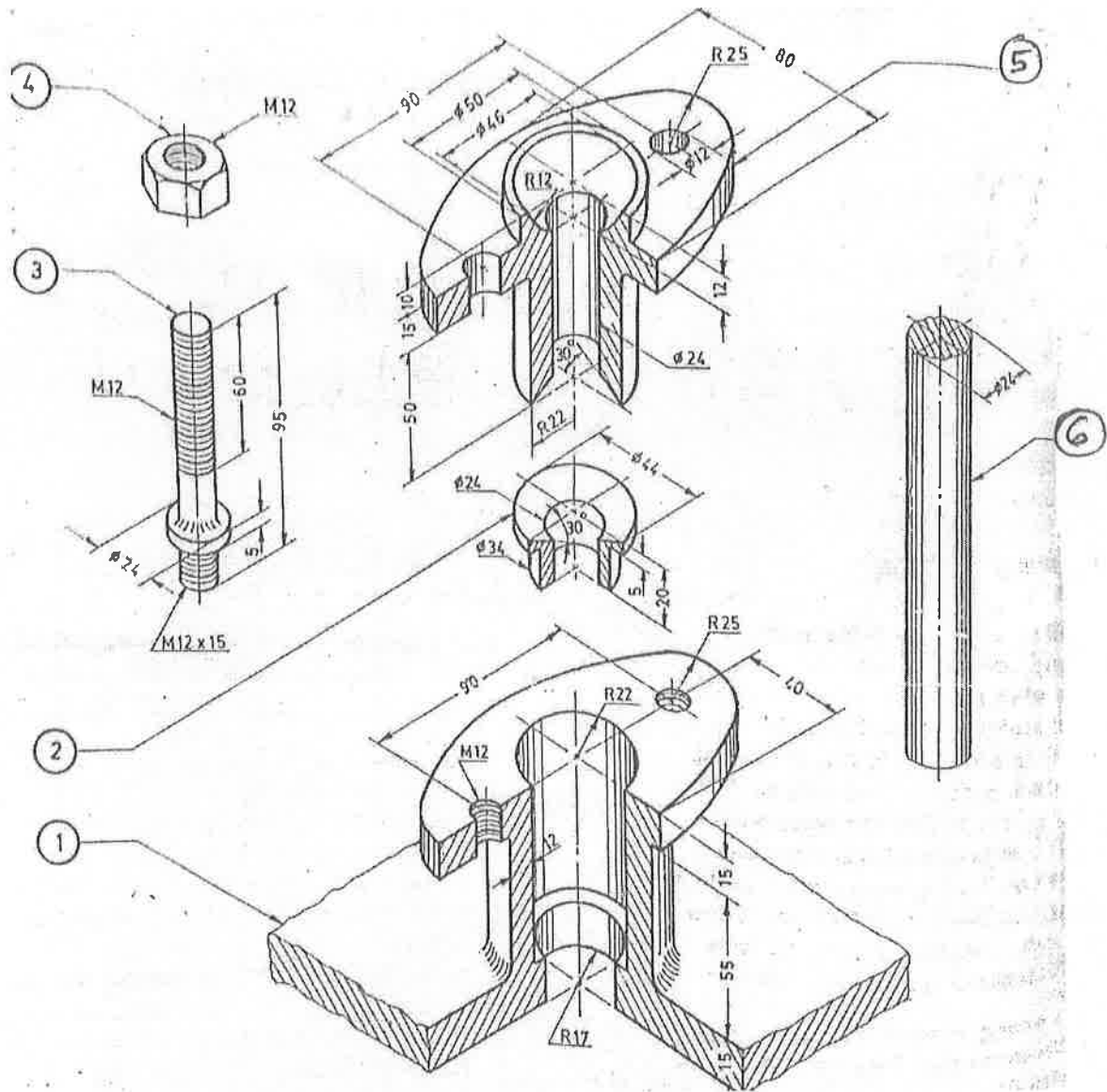
FIGURE 02



ITEM LIST

Item	Description	Qty	Material
1	Bush	1	G.M
2	Pad	1	G.M
3	Snug	1	Steel
4	Block	1	C.I

FIGURE.03



Item	Description	Qty	Material
1	Body	1	C.I
2	Gland bush	1	Brass
3	Stud	2	M.S
4	Nut	2	M.S
5	Gland	1	C.I
6	Piston rod	1	Steel

FIGURE . 04

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