



TED (15) – 3024
(REVISION — 2015)

Reg. No.
Signature

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2019

MACHINE DRAWING

[Time : 3 hours

(Maximum marks : 100)

- [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

UNIT — I

- I Draw sectional front view and top view of a double riveted chain lap joint for plates having 20 mm thickness. Show all the dimensions in terms of the diameter of the rivet. 15

OR

- II Draw the elevation and left side view of a hexagonal headed bolt of size M 24. The length of the bolt is 80 mm and the threaded length is 54 mm. Indicate all dimensions on the drawing in terms of the diameter of the bolt. 15

UNIT — II

- III An isometric view of a socket and spigot joint is shown in figure 1. Draw the top half sectional elevation and end view from left. 30

OR

- IV Exploded isometric view of a unprotected type flanged coupling is shown in figure 2. Arrange the coupling and draw the top half sectional elevation and end view from left. 30

UNIT — III

- V An isometric view of a plummer block is shown in figure 3. Draw the right half sectional elevation and plan. Prepare the bill of materials. 40

OR

- VI Detailed view of a stuffing box is shown in figure 4. Assemble the parts and draw left half sectional elevation and mark the dimensions as per BIS. 40

UNIT — IV

VII Draw the following elementary welding symbols.

- | | |
|------------------------------|--------------------------|
| (i) Square butt weld | (ii) Single -V butt weld |
| (iii) Single bevel butt weld | (iv) Single -U butt weld |
| (v) Fillet weld | |

15

OR

VIII Draw the single line orthographic symbols of the following pipe fittings.

- | | |
|-----------------------------------|-------------------------------|
| (i) 90° elbow - flanged type | (ii) 45° elbow - screwed type |
| (iii) Cross - flanged type | (iv) Tee - screwed type |
| (v) Reducer coupling screwed type | |

15

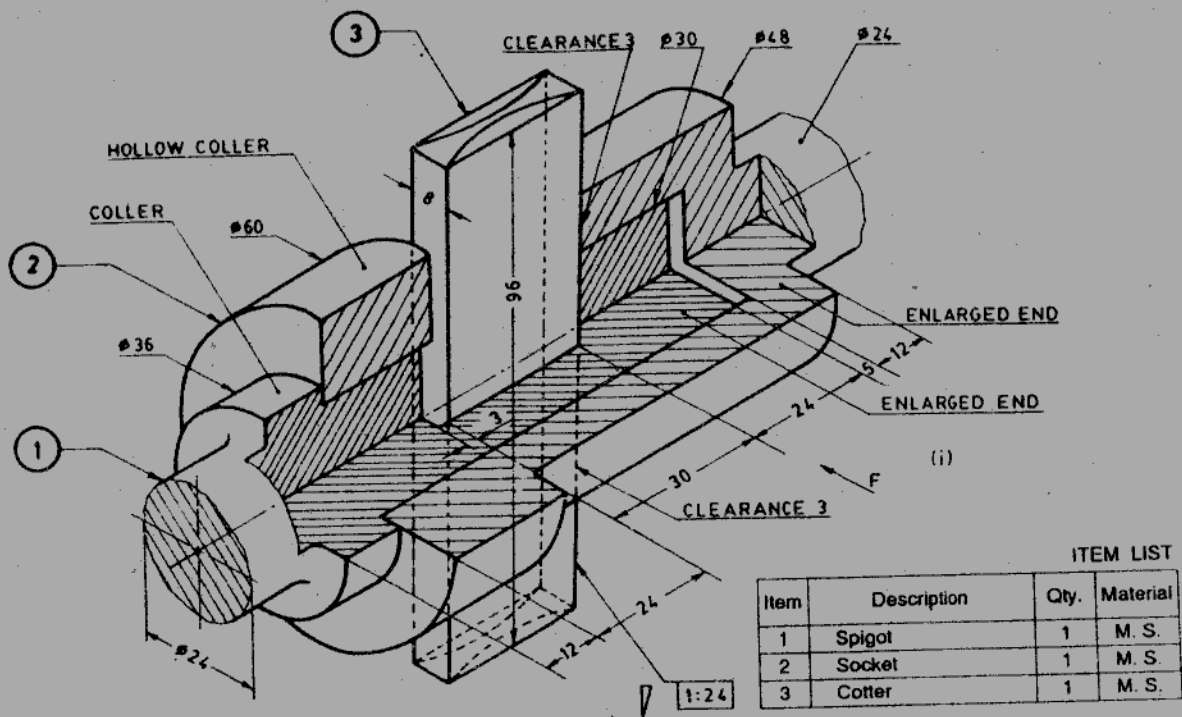


Figure 1

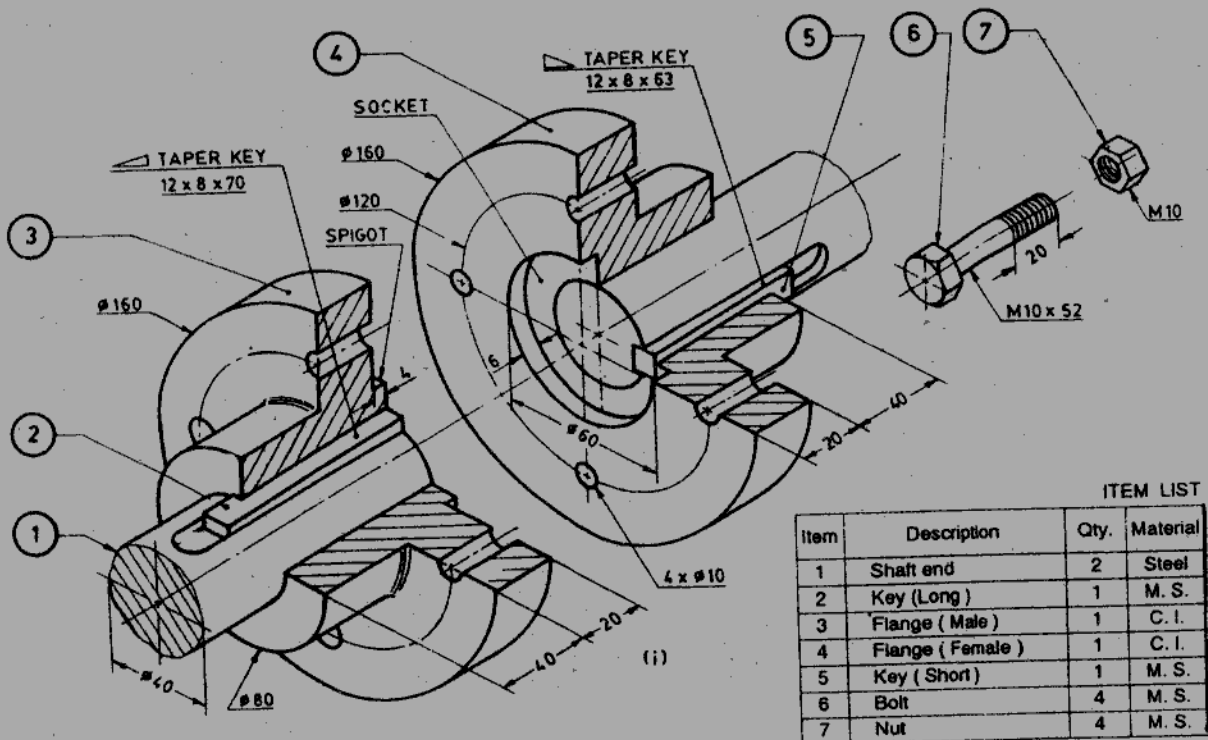


Figure 2

