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C20-M-307

**7262**

**BOARD DIPLOMA EXAMINATION, (C-20)**

**JUNE/JULY—2022**

**DME – THIRD SEMESTER EXAMINATION**

**MACHINE DRAWING**

Time : 3 hours ]

[ Total Marks : 60

**PART—A**

5×4=20

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **five** marks.  
(3) All dimensions are given in mm.

1. Draw a M20 hexagonal headed bolt with standard proportions. 5
2. Draw locking arrangement by using lock nut with standard proportions. 5
3. Draw the following weld symbols : 1×5=5
  - (a) Single J-butt weld
  - (b) Butt weld between plates with raised edges
  - (c) Seam weld
  - (d) Fillet weld
  - (e) Flat single V-butt weld with flat backing run
4. Draw the following pipe fitting symbols : 1×5=5
  - (a) Plug
  - (b) 40° Elbow
  - (c) Gate valve
  - (d) Union
  - (e) Coupling

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**PART—B**

40×1=40

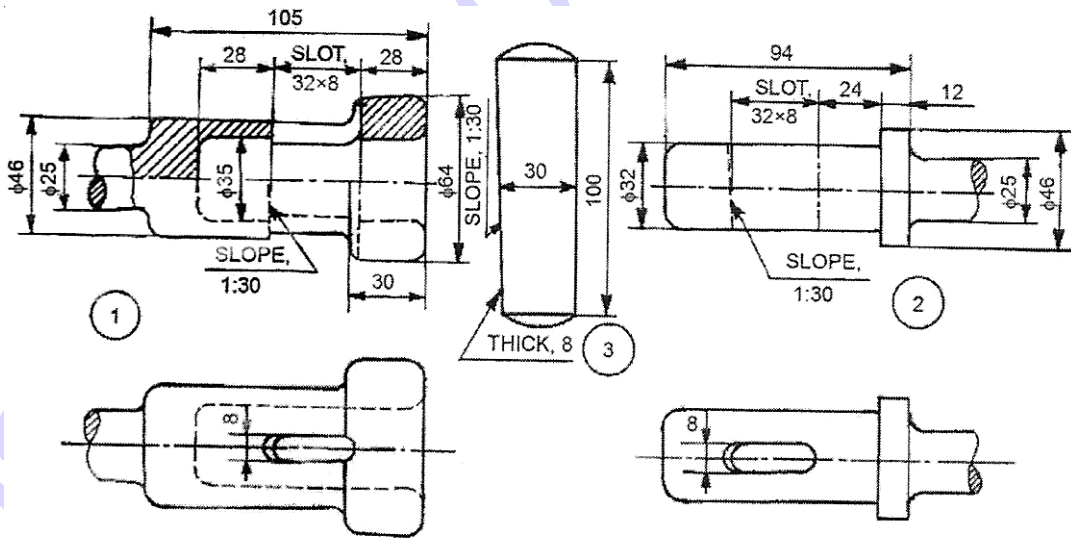
**Instructions :** (1) Answer *any one* question.

(2) All dimensions are given in mm and choose suitable scale.

(3) Assume missing dimensions suitably.

**5.** Assemble the parts of Socket and Spigot joint by using the part drawing given in the figure below (page 2) and draw the following :

- (a) Half sectional front view with top half in section 20
- (b) Top view 15
- (c) Dimensioning 5



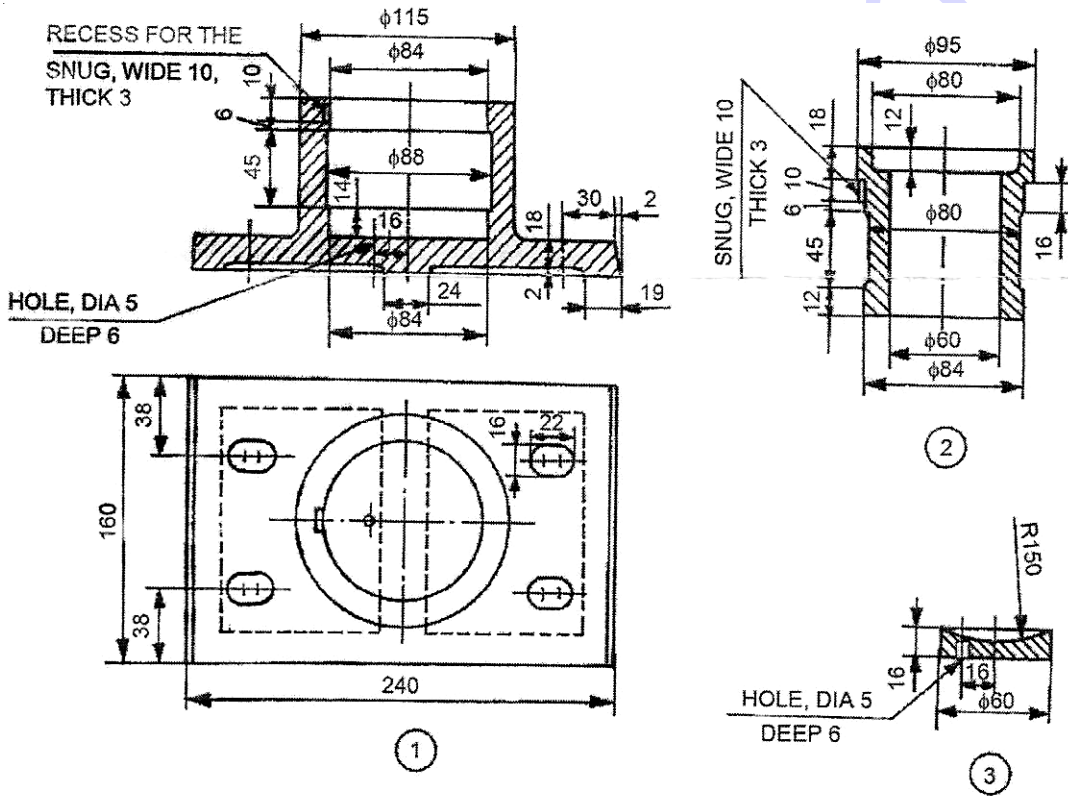
Parts list

Sl. No.	Name	Matl.	Qty.
1	Socket end	MS	1
2	Spigot end	MS	1
3	Cotter	HCS	1

Socket and spigot joint

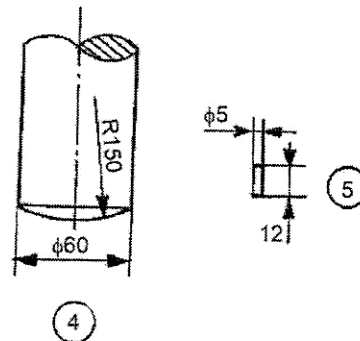
6. Assemble the parts of Foot step Bearing by using the part drawing given in the figure below (page 3) and draw the following :

- (a) Full sectional front view 20
- (b) Top view 15p
- (c) Dimensioning 5



Parts list

Sl. No.	Name	Matl.	Qty.
1	Body	Cast iron	1
2	Bush	Brass	1
3	Disc	P Bronze	1
4	Shaft	Mild steel	1
5	Pin	Mild steel	1



Foot-step bearing

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