



C23-M/MET-306

23147

**BOARD DIPLOMA EXAMINATION, (C-23)
OCTOBER/NOVEMBER—2024
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 in mm and use first angle of projection.

1. Draw the following screw thread profiles with standard proportions :
 - (a) ACME 2½
 - (b) Knuckle 2½
2. Draw a M20 hexagonal headed bolt with standard proportions. 5
3. Draw the following weld symbols : 1×5=5
 - (a) Fillet Weld
 - (b) Seam Weld
 - (c) Square butt weld
 - (d) Single bevel butt weld
 - (e) Single-V butt weld with broad root face
4. Draw the following pipe fitting symbols : 1×5=5
 - (a) Lateral
 - (b) 90° Elbow
 - (c) Gate valve
 - (d) Cross
 - (e) Union

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1

[Contd...

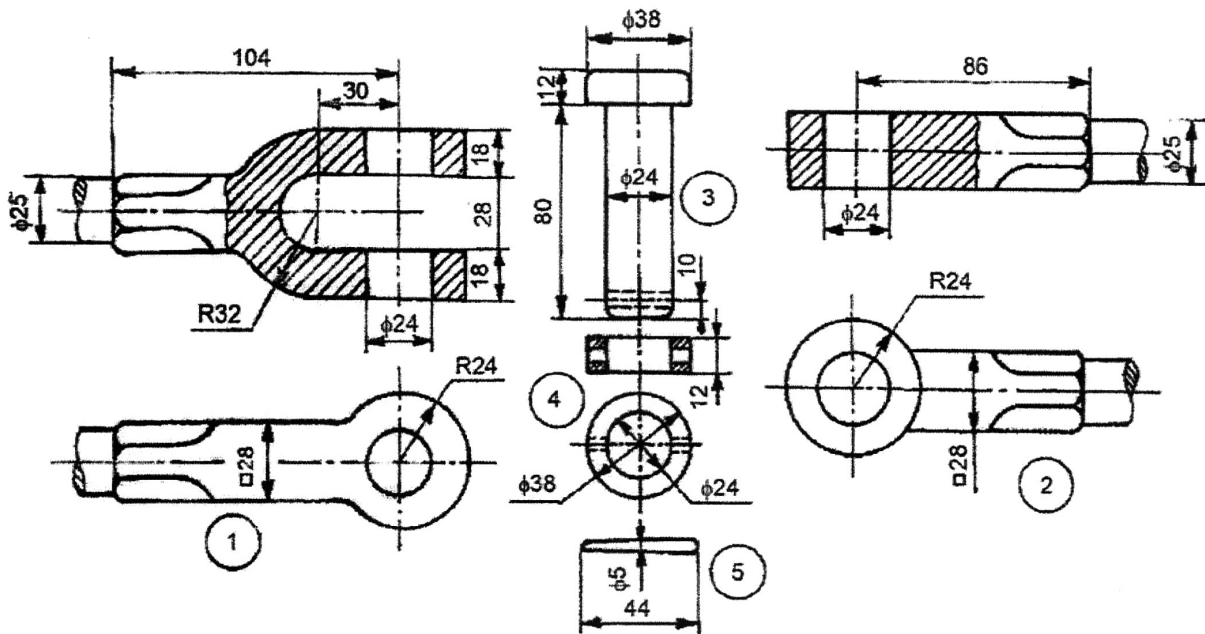
PART—B

40×1=40

- Instructions :**
- (1) Answer *any one* question.
 - (2) Each question carries **forty** marks.
 - (3) **All** dimensions are given in mm and choose suitable scale.
 - (4) Use first angle projection.
 - (5) Assume missing dimensions suitably.

5. Assemble the parts of Knuckle joint by using part drawing given in the figure below and draw the following :

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



Parts list

Sl. No.	Name	Matl.	Qty.
1	Fork end	Forged steel	1
2	Eye end	Forged steel	1
3	Pin	Mild steel	1
4	Collar	Mild steel	1
5	Taper pin	Mild steel	1

Knuckle joint

6. Assemble the parts of Foot Step Bearing by using the part drawing given in the figure below and draw the following :

(a) Full sectional front view

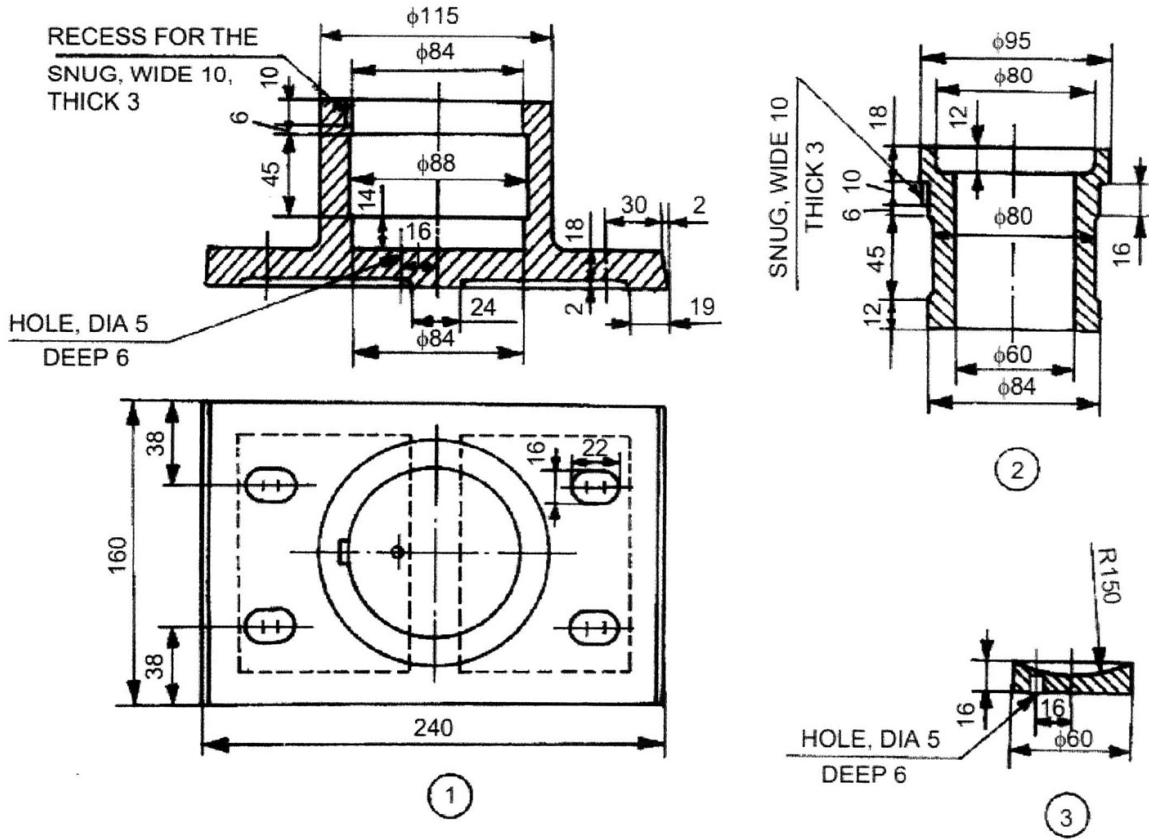
20

(b) Top view

15

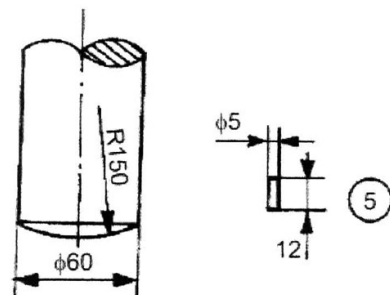
(c) Dimensioning

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



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