



C20-M-407

7460

**BOARD DIPLOMA EXAMINATION, (C-20)
OCTOBER/NOVEMBER—2023
DME – FOURTH SEMESTER EXAMINATION**

PRODUCTION DRAWING

Time : 3 Hours]

[Total Marks : 60

PART—A

5×4=20

- Instructions :** (1) Answer **all** questions.
(2) Each question carries **five** marks.
(3) Draw the following neatly with proportionate dimensions.
(4) Use of limits, fits and tolerance tables are allowed.
1. Calculate the limit dimensions for an interference fit on the hole basis system for a basic size of 30 mm diameter, with a maximum interference 0.05 mm, tolerance on the hole 0.025 mm and tolerance on the shaft 0.015 mm.
 2. Draw the symbols for the following geometrical tolerance characteristics :
 - (a) Profile of any line
 - (b) Cylindricity
 - (c) Profile of any surface
 - (d) Position
 - (e) Symmetry

3. Write the surface roughness values for the following manufacturing processes :

- (a) Hot rolling
- (b) Surface grinding
- (c) Honing
- (d) Sand casting
- (e) Drilling

4. Write the meaning of the following designations :

- (a) Fe E 460
- (b) 25 Cr 4 Mo 2G
- (c) Hex bolt M 20 × 1.5 × 75 N-IS : 1364-S- 4.6
- (d) Counter sunk screw M 5 × 15, IS : 1365-4.8
- (e) Cylindrical pin 10 h 8 × 20, IS : 2393

PART—B

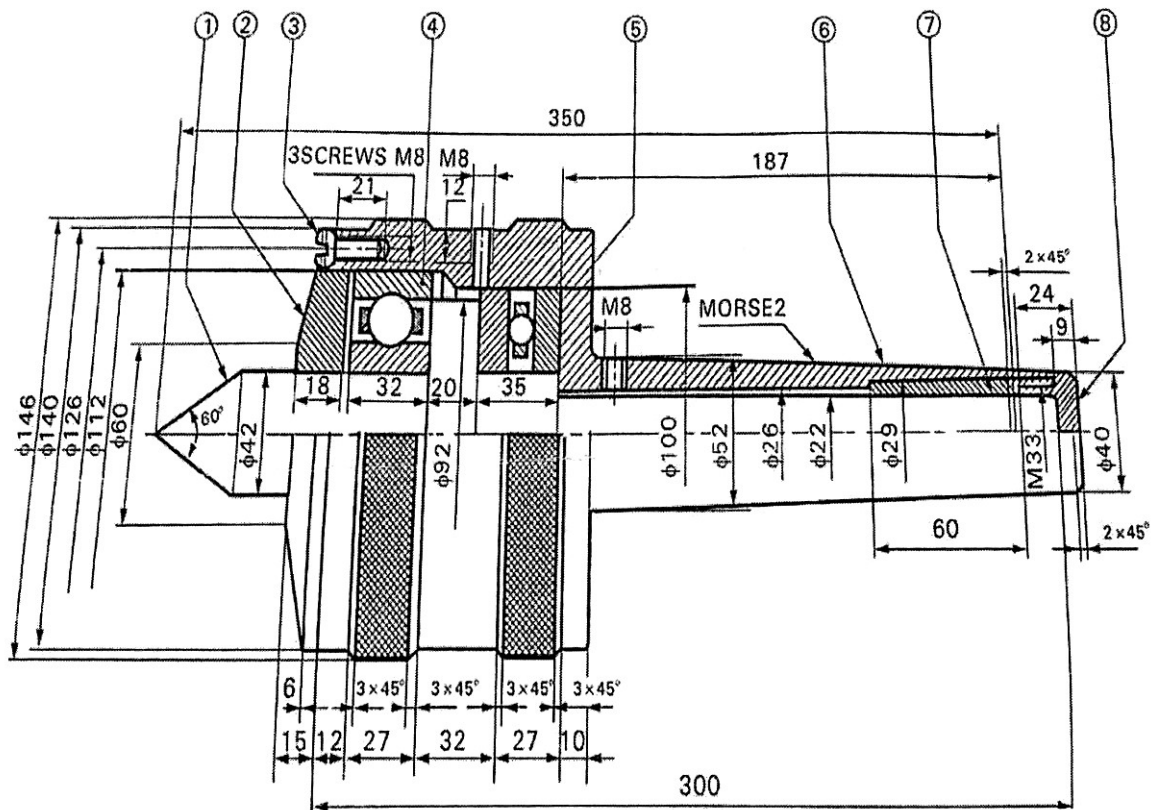
40×1=40

Instructions : (1) Answer *any one* of the following questions.

(2) Each question carries **forty** marks.

5. Study the given assembly drawing of revolving center :

- (a) Draw the part drawings. 20
- (b) Mention suitable fits and tolerances wherever required. 4
- (c) Indicate surface roughness values/symbols to the components. 6
- (d) Prepare process sheet for the manufacturing of “Barrel”. 7
- (e) Prepare bill of materials. 3

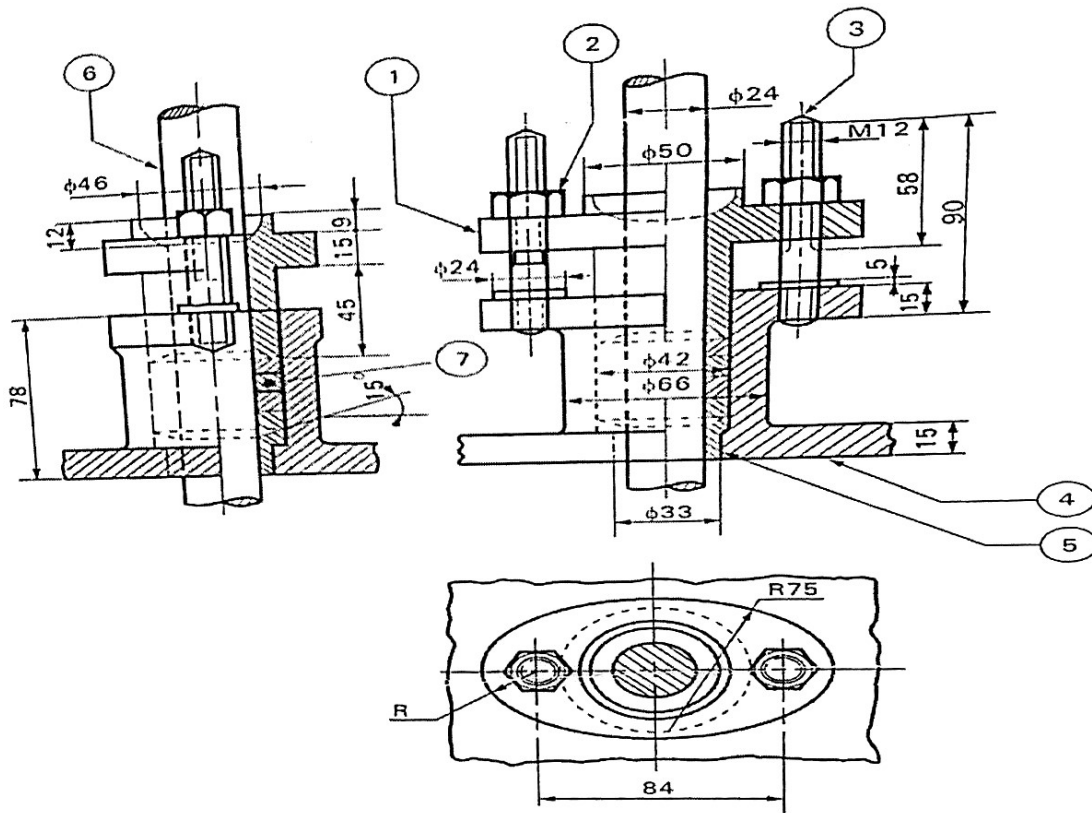


Parts List

Part. No	Name	Qty.
1	Centre	1
2	Cover	1
3	Screen	3
4	Radial ball bearing	1
5	Thrust ball bearing	1
6	Barrel	1
7	Sleeve	1
8	Cover	1

6. Study the given assembly drawing of stuffing box :

- (a) Draw the part drawings. 20
- (b) Mention suitable fits and tolerances wherever required. 4
- (c) Indicate surface roughness values/symbols to the components. 6
- (d) Prepare process sheet for the manufacturing of “Gland”. 7
- (e) Prepare bill of materials. 3



Parts List

Part. No	Name	Qty.
1	Gland	1
2	Nut	2
3	Stud	2
4	Body	1
5	Bush	1
6	Shaft	1
7	Packing	-

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