



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

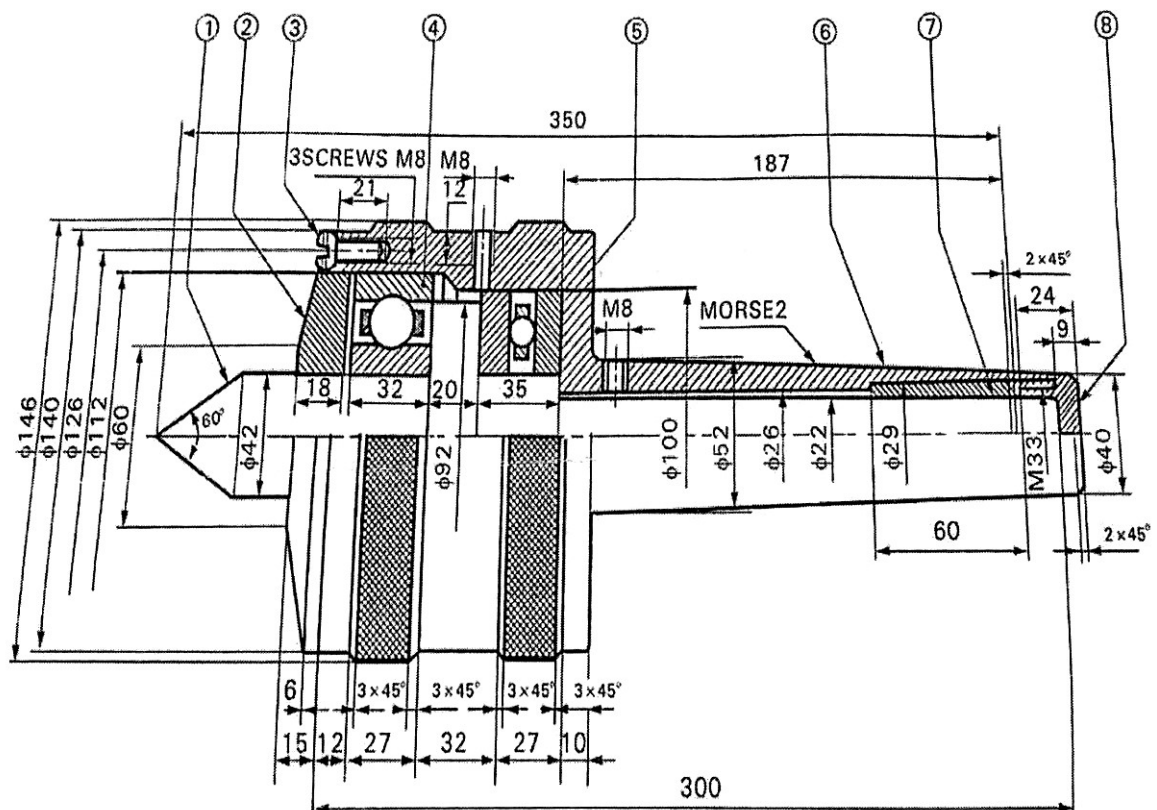
40×1=40

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

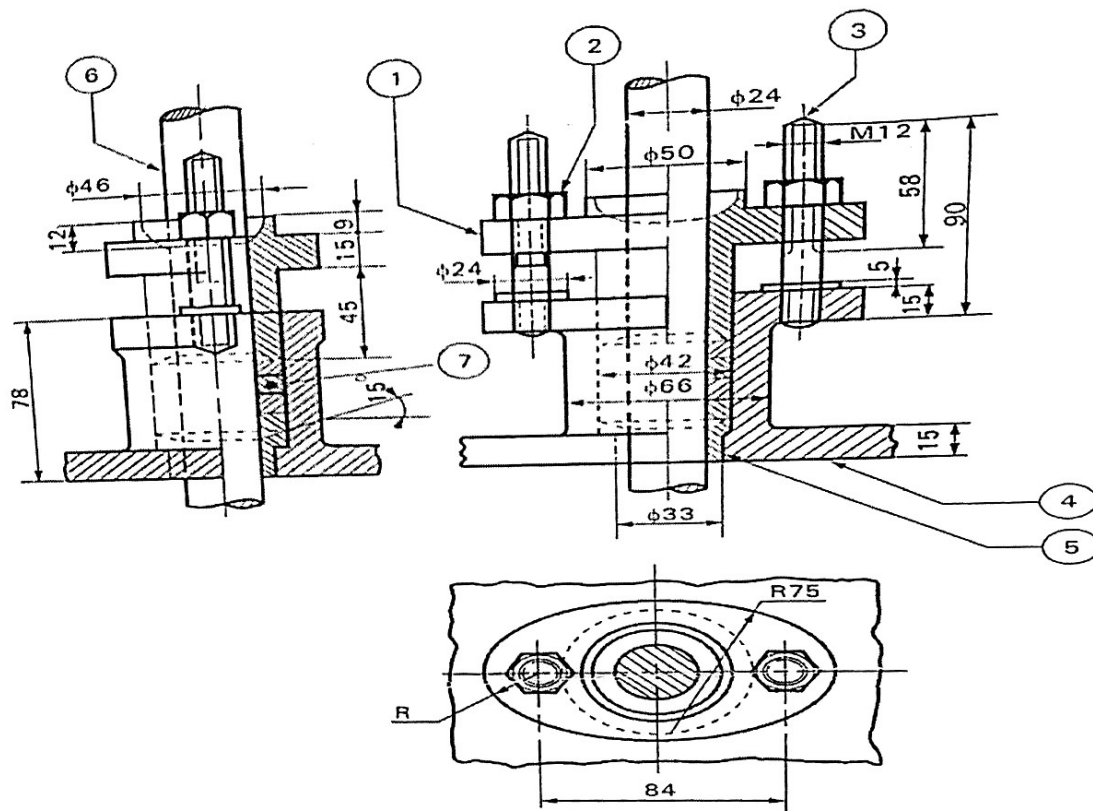


Parts List

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 :

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|--|----|
| (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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