

C16-M-406

6451

BOARD DIPLOMA EXAMINATION, (C-16)

JANUARY/FEBRUARY—2022

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 production drawing tables is allowed.
 - The dimensions of a shaft and hole are given below: 1.

+0.28

-0.00

+0.12

-0.16

Hole: 40

Shaft: 40

Find out the following:

- Tolerance of hole (a)
- (b) Tolerance of shaft
- Maximum allowance (c)
- Minimum allowance (d)
- Type of fit (e)

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2.	Draw the symbol for the following:
	(a) Position

- (b) Flatness
- (c) Coaxiality
- (d) Cylindircity
- (e) Profile of any line

3. Write the surface roughness values for the following:

- (a) Die-casting
- (b) Shaping
- (c) Extrusion
- (d) Reaming
- (e) Lapping

4. Indicate the meaning of following symbols/specifications:

- (a) Hex bolt M20 × 1.5×75 NN, IS : 1364–S–4.5
- (b) Countersunk Screw M5 × 15, IS: 1365–4·8
- (c) Splines 6 × 23 × 26, IS: 2327
- (d) Taper key 12 × 8 × 50, IS: 2292
- (e) O-Ring, 10/2·5, Viton

PART—B

Instructions: (1) Answer any one question.

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

5. Study the given assembly drawing of the eccentric shown in Figure 1: 20+5+5+5+5=40

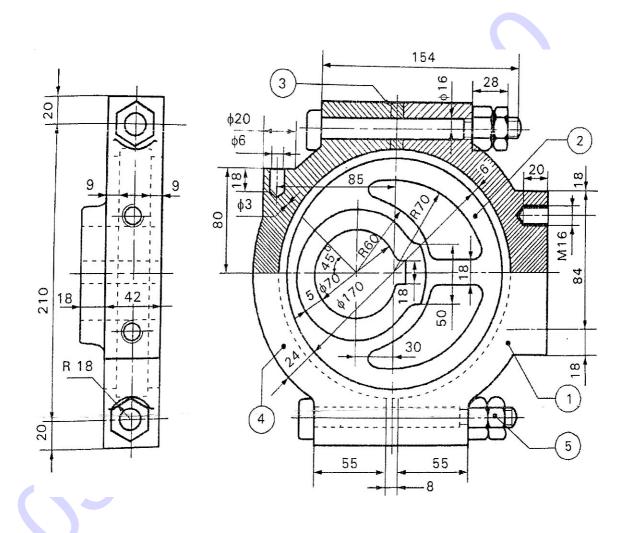


Fig. 1

Part No.	Name	Qty.
1	Strap	1
2	Sheave	1
3	Shim	2
4	Strap	1
5	Bolt with nut	2

- (a) Draw the component drawings.
- (b) Apply suitable tolerances and fits.
- (c) Apply suitable geometrical tolerances to components.
- (d) Show the surface roughness symbols.
- (e) Prepare the process sheet for strap
- **6.** Study the given assembly drawing of foot step bearing shown in Figure 2 :

20+5+5+5+5=40

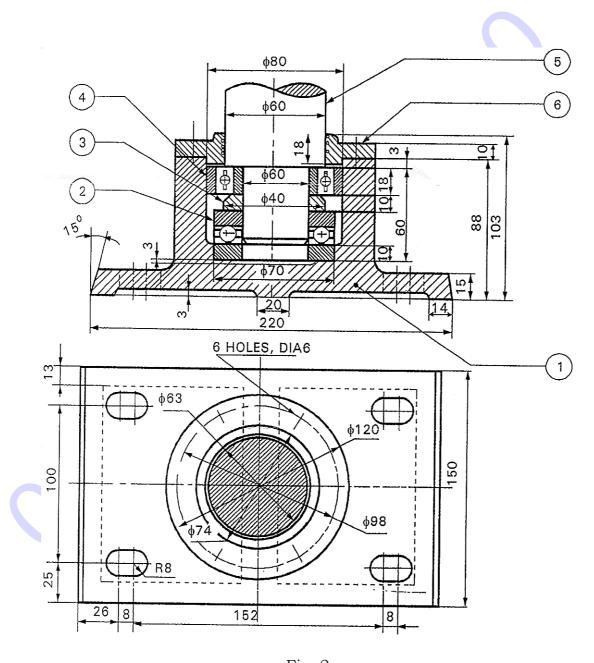


Fig. 2

Part No.	Name	Qty.
1	Base	1
2	Thrust ball bearing	1
3	Spacer	1
4	Ball Bearing	1
5	Shaft	1
6	Cover	1

- (a) Draw the component drawings.
- (b) Apply suitable tolerances and fits.
- (c) Apply suitable geometrical tolerances to components.
- (d) Show the surface roughness symbols.
- (e) Prepare the process sheet for cover.

