



C09-M-407

3507

BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2018
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.

1. The dimension of a hole and shaft are given below :

$$\begin{array}{ll} + 0.0030 & - 0.0010 \\ + 0.0000 & - 0.0029 \end{array}$$

Hole 60

Shaft 60

Find—

- (a) Hole tolerance
(b) Shaft tolerance
(c) Min. Allowance
(d) Max. Allowance
(e) Type of fit

/3507

1

[Contd...

WWW.MANARESULTS.CO.IN

2. Sketch the symbols for tolerances of form and position for the following :

(a) Straightness

(b) Circularity

(c) Perpendicularity

(d) Position

(e) Runout

3. Mention the average roughness values that can be obtained from the following process :

(a) Boring

(b) Planning

(c) Forging

(d) Hobbing

(e) Lapping

4. Explain the following designations :

(a) Hex bolt M16 × 70N

(b) Splines 6 × 23 × 26

(c) Taper key 12 × 8 × 50

(d) O-ring 12/2.5 Teflon

(e) Ball bearing 205

* **PART—B**

40

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

(2) Choose suitable scale.

5. Study the given assembly drawing of bushed pin-type Flanged coupling shown in Fig. 1.

- (a) Draw the component drawings for all parts. 20
- (b) Indicate the surface roughness values on all parts. 5
- (c) Indicate geometrical tolerances wherever needed for all parts. 5
- (d) Mention type of fits between mating parts 1-3 and 1-5. 2
- (e) Prepare the process sheet for Flange. 8

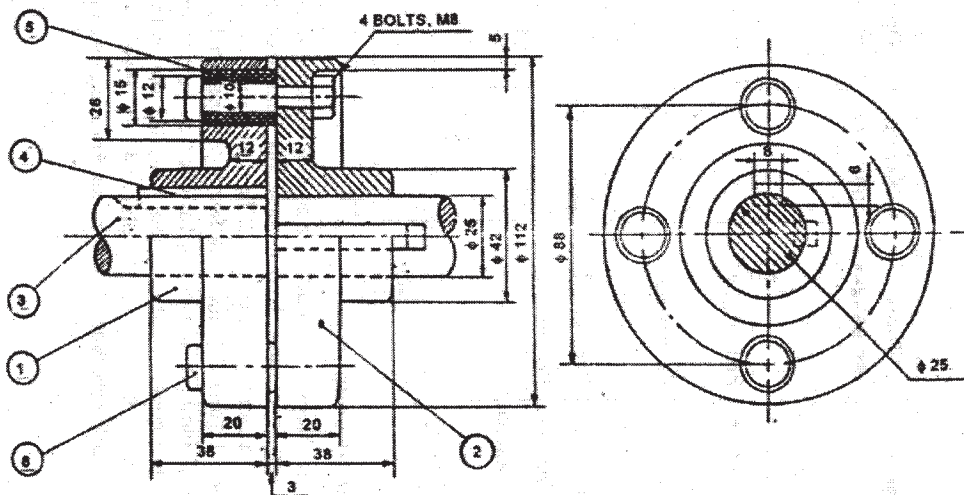


Fig. 1 : Bushed pin-type flanged coupling

Bill of Material

Part No.	Name	Raw material	Qty.
1.	Flange	C.I.-Casting	1
2.	Flange	C.I.-Casting	1
3.	Shaft	MS- 25	2
4.	Key	MS-Std. Component	2
5.	Rubber bushes	Rubber-Std. Component	-
6.	Bolt	MS-Std. Component	4

6. Study the given assembly drawing of eccentric :

- (a) Draw the component drawings for all the parts. 22
- (b) Apply suitable fits and tolerances. 5
- (c) Apply suitable geometrical tolerances. 2
- (d) Indicate surface roughness values on all parts. 3
- (e) Prepare the process sheet for 'Straps'. 8

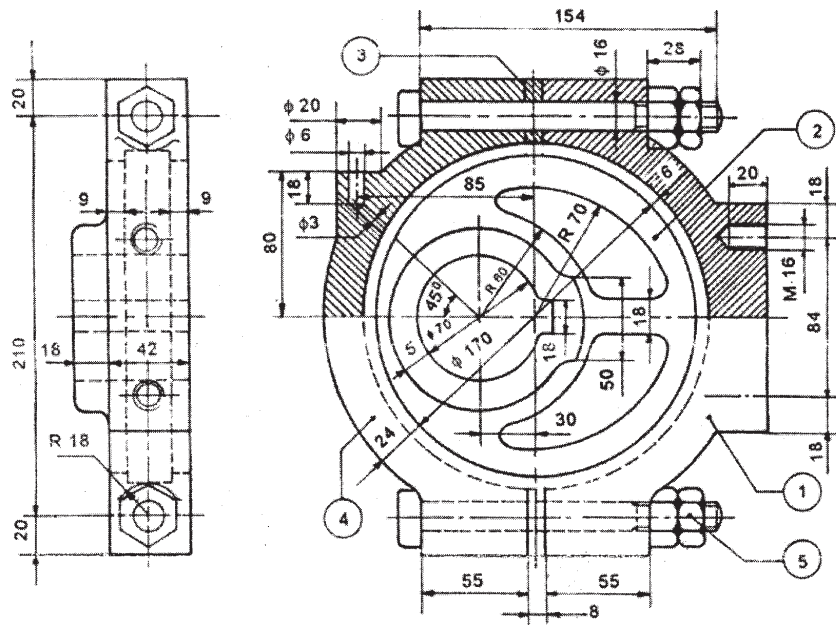


Fig. 2 : Eccentric

Bill of Material

Part No.	Name	Raw material	Qty.
1.	Strap	C.I.-Casting	1
2.	Sheave	C.I.-Casting	1
3.	Shim	Brass-Strips	2
4.	Strap	C.I.-Casting	1
5.	Bolt with nut	MS-Std. Component	2
