

C14-M-407

## 4483

# BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2016

### DME—FOURTH SEMESTER EXAMINATION

#### PRODUCTION DRAWING PRACTICE

Time: 3 hours [ Total Marks: 60

#### PART—A

 $5 \times 4 = 20$ 

**Instructions**: (1) Answer **all** questions.

- (2) Each question carries five marks.
- (3) Draw neatly with proportionate dimensions.
- (4) Use of production drawing tables is allowed.
- 1. Determine the limit dimensions for a clearance fit between the mating parts having nominal diameter of 40 mm, providing a minimum clearance of 0·1 mm with the tolerance of hole as 0·025 mm and that of shaft 0·05 mm follow hole basis system.
  - 5

5

- 2. Draw the machining symbols for the following:
  - (a) To indicate the surface considered
  - (b) If the removal of material is not permitted
  - (c) If the removal of material by machining is required
  - (d) When special surface characteristics have to be indicated
  - (e) If the same surface roughness is required on all the surfaces of a part
- **3.** Explain the following designations:

3+2

- (a) Hex bolt M20 ×  $1.5 \times 75$  NL IS : 1364-S-4.6
- (b) Splines 6 × 23 × 26 IS 2327

**4.** List various reprographic methods for reproducing engineering drawings.

5

#### PART—B

40

Instructions: (1) Answer any one question.

- (2) Each question carries forty marks.
- **5.** Study the given assembly drawing of the eccentric shown in Fig. 1:

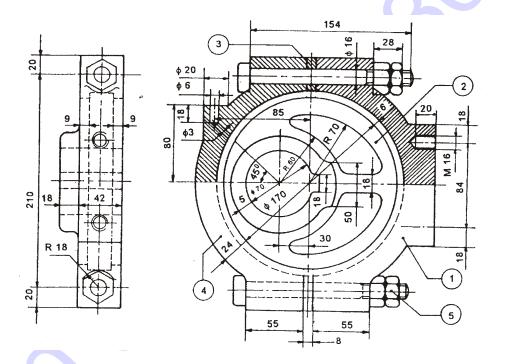


Fig. 1 Parts List

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) Prepare the process sheet for strap.
- (e) Show the surface roughness symbols.
- (f) List out the materials of the components. 20+5+4+5+4+2=40
- **6.** Study the given assembly drawing of the screw jack shown in Fig. 2:

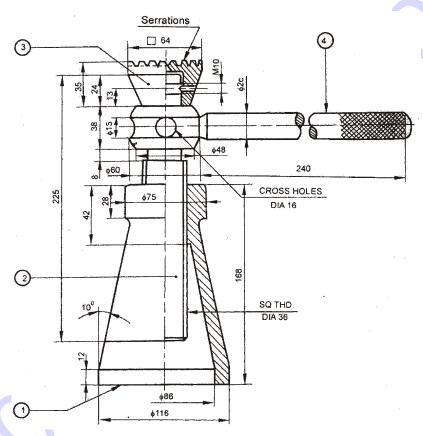


Fig. 2
Parts list

Part No.	Name	Qty.
1	Body	1
2	Screw	1
3	Cup	1
4	Tommy bar	1

- (a) Draw the component drawings.
- (b) Apply suitable tolerances and fits.

- (c) Apply suitable geometrical tolerances to components.
- (d) Prepare the process sheet for screw.
- (e) Show the surface roughness symbols.
- (f) List out the materials of the components.

20+5+4+5+4+2=40