C14-M-407

4483

BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2018

DME—FOURTH SEMESTER EXAMINATION

PRODUCTION DRAWING PRACTICE

Time : 3 Hours] [*Total Marks* : 60

PART—A 5×4=20

Instruction **:** (1) Answer all questions and each question carries **five** marks.

(2) Draw the following neatly with proportionate dimensions.

(3) Use of production drawing tables are allowed.

1. Calculate the value of the maximum clearance, hole tolerance and shaft tolerance for the following dimensions of assembled parts :

Hole Shaft $^{43.975\ mm}_{44.3515\ mm}$ Shaft $^{43.975\ mm}_{43957\ mm}$

2. Draw the comprehensive symbol of surface roughness and indicate all the elements on it.

3. Indicate the meaning of the following symbols/specifications

(a) Fe E 460

(b) Hex Bolt M20 × l, 5 × 75N IS :1364-S-4.6

(c) Stud AM 10 × 30, IS : 1862 - P- 4.6

(d) Cylindrical Pin 10h8x20,IS:2393

4. List out various Reprographic methods used for reproducing Engineering Drawing.

PART—B 40 MARKS

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

5. Study the given assembly drawing of the Crank shown in fig and fits.

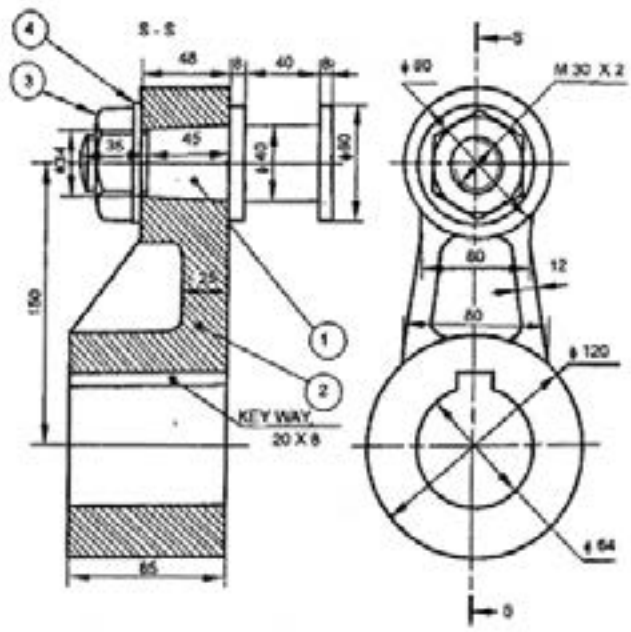
(a) Draw the component drawings selecting suitable tolerances and fits.

(b) Prepare the process sheet for crank pin (1) made with steel.

(c) Show the surface roughness symbols for the given crank.

(d) List out the materials of the components.

Dr



Bill of material

Part No.	Name	Raw material	Qty.
1.	Crank pin	45C – ϕ63 x 140	1
2.	Crank	FS – Forging	1
3.	Nut	MS – Std. component	1
4.	Washer	MS – Std. component	1

Side Crank

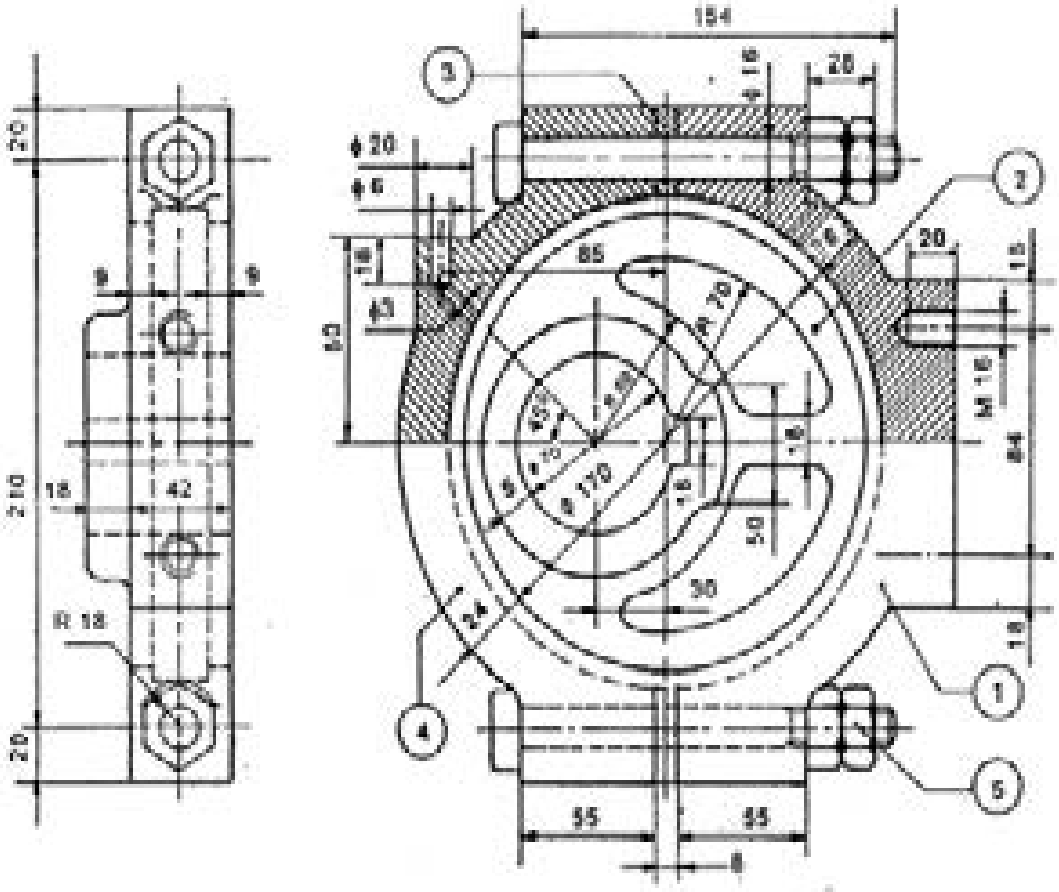
6. (a) Study the given assembly of eccentric and draw part drawing of each component.

(b) List out the materials of the components.

(c) Select suitable fit for assembly of sheave and straps.

(d) Indicate the surface roughness values.

(e) Prepare process sheet for straps.



Bill of material

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

Eccentric