

**DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — OCTOBER, 2017**

PRODUCTION DRAWING

[Time : 3 hours

(Maximum marks : 100)

- [Note :— 1. A2 size drawing sheet will be supplied and both sides can be used.
2. Use of BIS tables and chart are permitted in the examination hall.
3. Theory portions of the questions must be answered in the answer book.
4. Sketches on 2nd page.]

PART — A

(Maximum marks : 20)

Marks

I Answer all questions. Each question carries 5 marks.

1. What are the main contents required to be furnished in the operation process chart ?
2. Define surface texture and waviness.
3. Represent schematically an interference fit on shaft basis system.
4. Briefly explain Hole basis system. (4×5 = 20)

PART — B

(Maximum marks : 30)

II Answer any *two* of the following questions. Each question carries 15 marks.

1. Calculate the unit dimensions of an interference fit on the shaft basis system.

Basis size of the shaft	:	30mm	
Negative clearance (Max)	:	0.048mm	
Tolerance on the shaft	:	0.013mm	
Tolerance on the hole	:	0.012mm	
Represent the same on a schematic diagram			15
2. Define clearance fit, interference fit and transition fit. 15
3. Draw the basic symbol and show the nomenclature of surface texture and define each term. 15

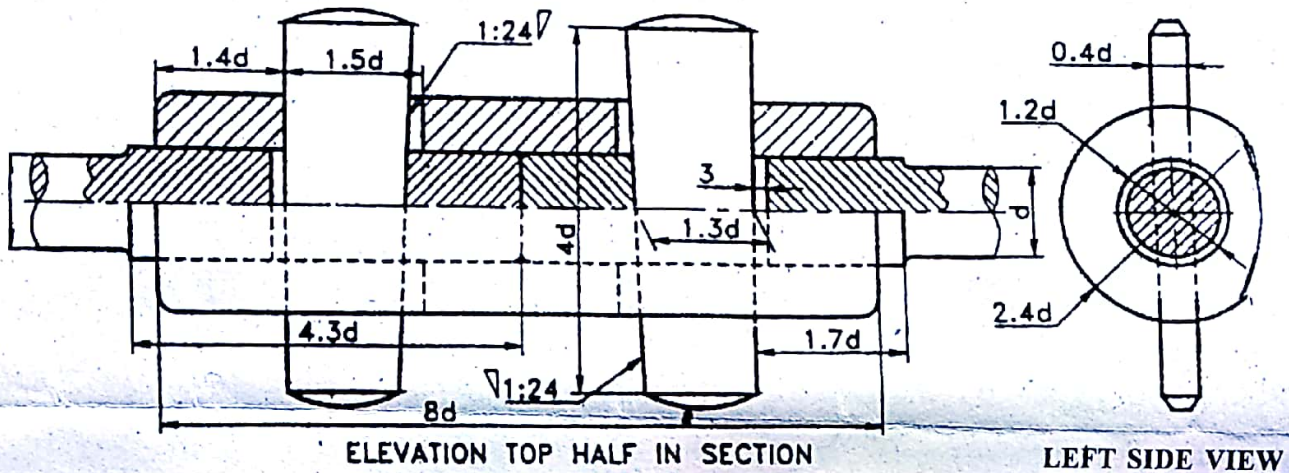
PART — C
(Maximum marks : 60)

(Answer one question from the following. Each question carries 50 marks.)

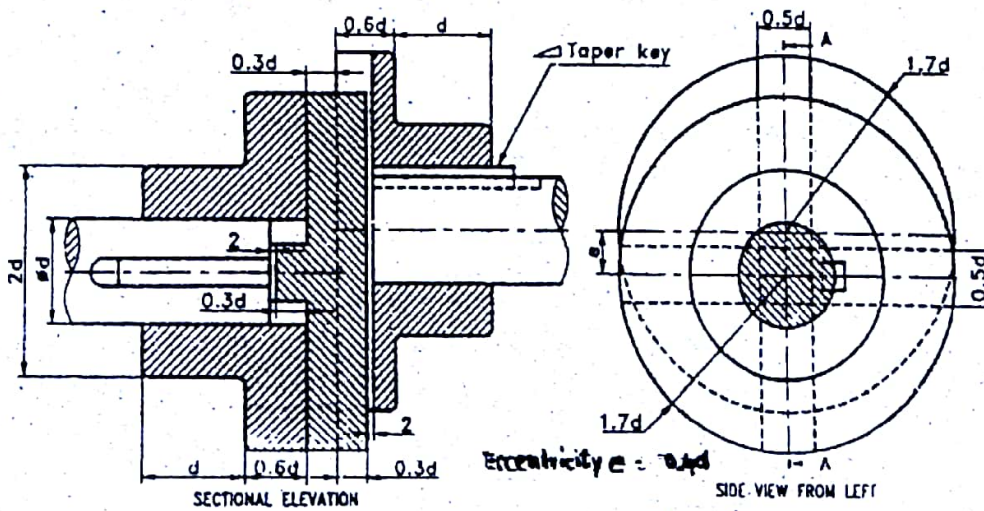
III (a) Prepare the shop floor drawing of the joint shown in fig. (1). Give N7 finish to mating parts and N9 for other surface. Dia of shaft $d = 20\text{mm}$. 50

OR

(b) Assembled view of an oldham's coupling is shown in fig. (2). Prepare a shop floor drawing of each part. Dia of shaft $d = 30\text{mm}$. 50



Fig(1)



Fig(2)