

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/
MANAGEMENT/COMMERCIAL PRACTICE — APRIL, 2018

ADVANCED PRODUCTION PROCESS

[Time : 3 hours

(Maximum marks : 100)

PART — A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. List the different work holding devices used on capstan and turret lathe.
2. What is broaching ?
3. What is spring back ?
4. Define lapping.
5. What is powder metallurgy ?

(5×2 = 10)

PART — B

(Maximum marks : 30)

II Answer any *five* of the following questions. Each question carries 6 marks.

1. Briefly describe about semi automatic and automatic lathes.
2. What are the different types of machining centres ?
3. Draw a neat sketch of simple die assembly and label the parts.
4. What are the different factors considering for the selection of grinding wheel ?
5. What are the advantages of EDM ?
6. What are the limitations of powder metallurgy ?
7. What are the advantages of FMS ?

(5×6 = 30)

PART — C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each full question carries 15 marks.)

UNIT — I

- III (a) Draw a line diagram of turret lathe and label the parts. 8
 (b) Briefly describe about multiple cutter holder. 7

OR

- IV (a) Draw the bar feeding mechanism used in capstan and turret lathe and mark the parts. 8
 (b) Briefly describe about flange tool holder with neat sketch. 7

UNIT — II

- V (a) Draw a neat figure of gear shaping machine and mark the parts. 8
 (b) What are the limitations of broaching process ? 7

OR

- VI (a) Explain vertical broaching machine with neat sketch. 8
 (b) Write the classification of broaching machine. 7

UNIT — III

- VII (a) Draw a neat sketch of horizontal spindle surface grinding machine and label the parts. 8
 (b) List the applications of powder metallurgy. 7

OR

- VIII (a) With neat sketch describe the principle of electric discharge machining. 8
 (b) Explain vertical spindle grinding machine with neat sketch. 7

UNIT — IV

- IX (a) What are the different elements of NC machine tool and explain each ? 8
 (b) What are the applications of robots ? 7

OR

- X (a) Explain the basic components of FMS. 8
 (b) What are the advantages of NC machine tool ? 7
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