TED (15) -6021
(Revision -2015)

N20-04105

Reg.No…….....
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DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – NOVEMBER -2020.

ADVANCED PRODUCTION PROCESSES

(Maximum Marks:75) [Time: 2.15 hours]

PART–A

Marks

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

1. List any four tool holding devices used in turret and capstan lathe.
2. State the principle of copying machine.
3. Differentiate between piercing and blanking.
4. List various bonds for holding abrasive grains together.
5. What is G code and M code related to part programming. (3x2=6)

PART - B

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

1. Explain bar feeding mechanism in capstan/turret lathe.
2. State the advantages of jigs and fixtures.
3. Illustrate broaching tool details.
4. Discuss about lapping and horning.
5. Explain the advantages and disadvantages of LBM.
6. State the advantage of CNC machines over conventional machine tools.
7. State the reason for using robots.

[4x6 =24]

PART - C

(Answer **any of the three units** form the following. Each full question carries 15 marks)

UNIT I

III (a) Explain the parts of capstan lathe with a neat sketch. (9)

(b) Distinguish between single spindle and multi spindle automatic lathes. (6)

OR

IV (a) Compare capstan lathe and turret lathe. (8)

(b) Explain the characteristics of machining centre. (7)

UNIT- II

V (a) Explain principle of location of rectangular block in jigs. (8)

(b) Explain the working of progressive die with a suitable figure. (7)

OR

VI (a) Explain the principle of gear hobbing. State its two advantages and disadvantages. (8)

(b) Explain jig boring machine with a neat sketch. (7)

UNIT- III

VII (a) Describe the working principle of centre less grinder with a neat figure. (8)

(b) Explain about natural and artificial abrasives with example. (7)

OR

VIII (a) Mention the factors affecting selection of a grinding wheel. (8)

(b) Describe EDM with a neat sketch. (7)

UNIT – IV

IX (a) Explain the classification of NC machines. (8)

(b) Briefly explain any two configuration of robot with diagram (7)

OR

X (a) Explain FMS. What are the basic components of FMS. (8)

(b) Discuss about computer aided process planning. (7)

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