



**C20-A-503**

**7603**

**BOARD DIPLOMA EXAMINATION, (C-20)**

**OCTOBER/NOVEMBER—2023**

**DAE – FIFTH SEMESTER EXAMINATION**

**PRODUCTION TECHNOLOGY**

*Time : 3 Hours ]*

*[ Total Marks : 80*

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**PART—A**

3×10=30

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed five simple sentences.

1. List out the different types of milling operations.
2. State the various methods of gear making.
3. Write about the gear moulding process.
4. List out the different types of abrasives.
5. State the principle of parkerizing.
6. List out the different types surface finishing processes.
7. State any three advantages and limitations of plastics.
8. State the elements of NC machine.
9. Define the term 'FMS'.
10. State any three advantages and limitations of robot.

**PART—B**

8×5=40

- Instructions :** (1) Answer **all** questions.  
(2) Each question carries **eight** marks.  
(3) Answers should be comprehensive and criterion for valuation is the content but not the length of the answer.

**11.** (a) Explain the constructional details and function of each part of vertical milling machine with the help of a neat sketch.

**(OR)**

(b) Explain the simple and direct indexing method with a neat sketch.

**12.** (a) Explain the different types of abrasive bonds and bonding processes for making grinding wheel.

**(OR)**

(b) Explain the constructional details and working principle of center less type grinding machine.

**13.** (a) State the differences between jigs and fixture. Explain any two drill jigs with the help of neat sketches.

**(OR)**

(b) List out the different types of clamps and explain any two types of clamps with neat sketches.

**14.** (a) Explain the principle and working of compression moulding with the help of a neat sketch.

**(OR)**

(b) Explain the principle and method of calendaring with the help of a neat sketch.

**15.** (a) Explain the principle and construction of electro-discharge machining with a neat sketch.

**(OR)**

(b) Explain the principle of computerized numerical control (CNC) machining.

**PART—C**

10×1=10

- Instructions :** (1) Answer the following question.  
(2) The question carries **ten** marks.  
(3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

**16.** Explain the major elements and features of FMS.

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