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C14-M-506

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BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2021

DME - FIFTH SEMESTER EXAMINATION

PRODUCTION TECHNOLOGY - III

Time : 3 hours ]

[ Total Marks : 80

**PART—A**

4×5=20

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

1. State the advantages and limitations of non-conventional machining over conventional machining.
2. State any three advantages of electric discharge machining.
3. State the principles of chemical machining.
4. What are the advantages of plastics over other materials?
5. How are the plastics extruded?
6. What is meant by power press?
7. State the difference between compound die and combination die.
8. What is the function of drill bush?
9. What are the advantages of using jigs and fixtures?
10. What is button boring?

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## PART—B

15×4=60

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

11. Describe the ultrasonic machining with a neat sketch. State its applications, advantages and limitations.
12. Explain the abrasive jet machining with a neat sketch. State its advantages and disadvantages.
13. Describe the process of injection moulding with a neat sketch.
14. Explain different stages involved in lamination of sheets with a line diagram.
15. Explain the clearances for blanking and piercing operations with neat sketches.
16. Define spring back. Explain the method used to compensate for its harmful effects.
17. Explain different types of clamp used in jigs and fixtures.
18. Explain the working of a cross rail-type jig boring machine with a neat sketch.

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