

C14-M-506

4654

BOARD DIPLOMA EXAMINATION, (C-14) OCT/NOV-2018 DME—FIFTH SEMESTER EXAMINATION

PRODUCTION TECHNOLOGY—III

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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. State the advantages and limitations of nonconventional 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 the 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.** Define jig and fixture.
- 9. What are the advantages of using jigs and fixtures?
- **10.** What is jig boring machine? How are they classified?

PART—B

 $10 \times 5 = 50$

Instructions: (1) Answer any **five** questions.

- (2) Each question carries ten marks.
- (3) Answers should be comprehensive and the 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 compression moulding of plastics. Distinguish among three basic types of compression moulds used.
- 14. Describe the methods of making reinforced plastic moulding.
- **15.** List and explain various press tool cutting operations.
- **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.** Describe the systems of location of holes with a sketch.

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