

C09-M-402

3502

BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV-2015 DME-FOURTH SEMESTER EXAMINATION

MANUFACTURING TECHNOLOGY—II

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. What are the advantages of gears made of plastic materials?
- **2.** What is the necessity of gear finishing?
- **3.** Write any three differences between profile milling and form milling.
- **4.** List various methods of grinding.
- **5.** Write any three advantages of centreless grinding.
- **6.** State any three advantages of ultrasonic machining.
- 7. List different methods of plastic welding.

- **8.** What are the advantages of hydraulic press over mechanical press?
- **9.** What is an indexing jig?
- 10. Draw a line diagram of cross rail jig boring machine.

PART—B

 $10 \times 5 = 50$

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

- (2) Each question carries ten marks.
- (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- **11.** List all work holding devices used in milling and explain any four in detail.
- **12.** Draw a line diagram of horizontal milling machine and explain the function of each part.
- **13.** Explain powder method of metal spraying with the help of a sketch.
- **14.** Explain the operation of Electrical Discharge Machining (EDM) with a sketch. State its advantages and disadvantages.
- **15.** Explain transfer moulding with a sketch. State its advantages and disadvantages.
- **16.** What are the different types of dies? Explain any two with sketches.
- **17.** Explain the principles of location for prevention of six degrees of freedom.
- **18.** (a) Explain the terms grade, grit and structure of a grinding wheel.
 - (b) Explain the principle of electromagnetic measuring system.

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