

C09-M-402

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BOARD DIPLOMA EXAMINATION, (C-09)

APRIL/MAY-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.** State any three differences between gear forming and gear generation methods.
- 2. State the principle of gear shaving.
- **3.** Write the tool signature of a milling cutter.
- **4.** List any three advantages of lapping.
- **5.** State the principles of metal spraying.
- **6.** State any three applications of ultrasonic machining.
- 7. List different methods of plastic welding.
- **8.** State any two differences between jig and fixture.

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- **9.** What are the purposes of notching and trimming?
- **10.** State the applications of jig boring machine.

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. List all tool-holding devices used in milling and explain each in detail.
- 12. Draw a line diagram of vertical milling machine and state the function of each part.
- **13.** Explain various factors to be considered for selection of a grinding wheel.
- 14. Explain the abrasive jet machining with a sketch, stating its advantages and disadvantages.
- **15.** (a) Draw a sketch of moulding press and label the parts.
 - (b) Describe the principle of extrusion moulding with a sketch.
- **16.** Draw a sketch of punch and die set and indicate main components. State the purpose of these components.
- 17. List and explain any four types of clamps used with jigs and fixtures.
- **18.** (a) List and explain various types of work-holding devices used in grinding.
 - (b) Draw a line diagram of cross rail jig boring machine and name the parts.

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