

C09-M-402

3502

BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV-2014

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) Answer should be brief and straight to the point and shall not exceed *five* simple sentences.
- 1. What are the various types of work holding devices used in milling?
- 2. State the principle of milling.
- 3. What is the necessity of gear finishing?
- 4. List any three advantages of lapping.
- **5.** What are the functions of surface coatings?
- **6.** Write any three advantages of Laser beam machining.
- 7. What are the purposes of the following additives of plastics?
 - (a) Pigments
 - (b) Stabilizer
 - (c) Catalyst

- 8. What are the advantages of hydraulic clamping?
- 9. Distinguish between blanking and punching.
- **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.** (a) What is form milling? Explain the types of form milling cutters.
 - (b) State the differences between upmilling and down-milling.
- **12.** Explain gear shaping method with a sketch.
- 13. Draw a sketch of plain cylindrical grinding machine and explain the parts.
- 14. Explain the operation of electrical discharge machining (EDM) with a sketch. State its advantages and disadvantages.
- **15.** Explain Ram type injection moulding with a diagram and state the advantages.
- **16.** Draw a sketch of punch and die set and indicate main components. State the purpose of these components.
- 17. Explain the principles of location for arresting six degrees of freedom.
- **18.** (a) List and explain various types of work holding devices used in grinding.
 - (b) Draw a line diagram of jig boring machine and explain.

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