

C09-M-402

3502

BOARD DIPLOMA EXAMINATION, (C-09) MARCH/APRIL—2018 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. List any six milling operations.
- 2. List out any three gear generating methods.
- **3.** What are the various types of work holding devices used in milling?
- **4.** A grinding wheel is specified as "A 40 B 2 S", what do B, 2, S indicate?
- **5.** Write any three advantages of centreless grinding.
- **6.** Name the abrasive particles used in abrasive jet machining.
- **7.** State any three disadvantages of plastics.

- **8.** List out any six cutting operations using press tools.
- 9. What are the disadvantages of mechanical press?
- **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) Explain simple indexing with the help of a neat sketch.
 - (b) Explain the construction and working principle of plain dividing head.
- **12.** Draw a sketch of universal milling machine and explain the function of each part.
- 13. Write short notes on the following bonding materials:
 - (a) Vitrified
 - (b) Silicate
 - (c) Shellac
 - (d) Resinoid
- **14.** Explain ultrasonic machining with a sketch. State its applications, advantages and limitations.
- **15.** Explain different types of blow moulding with the help of a neat sketch.
- **16.** Explain the principles of location for prevention of six degrees of freedom.

- 17. Draw a sketch of boring fixture and explain its working.
- **18.** (a) Explain the working principle of electroplating with a sketch.
 - (b) Draw a line diagram of jig boring machine and explain.

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