

C14-M-406

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BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2017 DME—FOURTH SEMESTER EXAMINATION

PRODUCTION 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. Write the various work holding devices used in milling machine.
- 2. Name any six important parts of milling machine.
- **3.** Classify different dividing heads.
- 4. What are the different gear finishing methods?
- **5.** What is the principle of gear shaping?
- 6. What are the variables factors for selecting grinding wheels?
- **7.** What is the principle of horizontal surface grinding?

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- 8. What is the through-feed grinding in centreless grinding?
- **9.** Write the applications of autocollimator.
- **10.** What are the different methods for measuring surface roughness?

PART—B

10×5=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.** Explain constructional details of universal milling machine with line diagram.
- **12.** Explain the following milling attachments:
 - (a) Vertical milling attachment
 - (b) Slotting milling attachment
- **13.** Explain the procedure of spur gear cutting with line diagram.
- **14.** Write the principle of gear shaping and explain constructional details of gear shaping machine with line diagram.
- **15.** Explain the constructional details of centreless grinding machine with neat sketch.
- **16.** Explain constructional details of horizontal spindle surface grinding machine.
- 17. Explain the working of interferometer with suitable diagram.
- **18.** (a) Explain wire method of metal spraying.
 - (b) Explain the principle of sine bars.

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