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**BOARD DIPLOMA EXAMINATION, (C-14)
MARCH/APRIL—2018
DME—FOURTH SEMESTER EXAMINATION
PRODUCTION TECHNOLOGY – II**

Time : 3 hours]

[Total Marks : 80

PART—A

10×3=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. Explain the working principle of milling machine.
2. State the difference between straddle milling and gang milling.
3. What are the various work holding devices used in milling ?
4. Write the various gear finishing operations.
5. Why are gears heat treated? What are the different methods employed for gear teeth?
6. Explain lapping process.
7. Define 'grade' How does it effect the selection of grinding wheel?
8. List out the application of honing.
9. What is optical comparator State its uses.
10. Define sine bar and state its uses.

PART—B

5×10=50

- Instructions :** (1) Answer *any five* questions.
(2) Each question carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

- 11.** Draw a neat sketch of a column and knee type milling machine and explain the functions of its parts.
- 12.** List the common methods of indexing and explain simple indexing with neat sketch.
- 13.** What are the various types of milling cutters used State the function of each cutter.
- 14.** Explain the operation of gear hobbing with the help of a neat sketch and state its advantages.
- 15.** (a) Explain the principle of centerless grinding with neat sketch.
(b) Explain 'infeed', 'through feed' and 'end feed' operations in center less grinding.
- 16.** Explain any two methods of coating by hot dipping.
- 17.** (a) Explain any one method of metal spraying with neat sketch.
(b) Describe the working principle of a pneumatic comparators with a neat sketch.
- 18.** Describe, using simple line sketch, the operating principle of sigma mechanical comparator. State its advantages and limitations.

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