

**6449**  
**BOARD DIPLOMA EXAMINATION**  
**JUNE - 2019**  
**DIPLOMA IN MECHANICAL ENGINEERING**  
**PRODUCTION TECHNOLOGY-II**  
**FOURTH SEMESTER EXAMINATION**

**Time: 3 Hours**

**Total Marks: 80**

**PART - A (3m x 10 = 30m)**

*Note 1: Answer all questions and each question carries 3 marks*

*2: Answers should be brief and straight to the point and shall not exceed 5 simple sentences*

1. List out any six milling machines
2. Name six types of milling cutters
3. Write any three differences between gear hobbing and gear shaping
4. List any six surface finishing processes
5. Define 'Grade' and 'Structure' of a grinding wheel
6. Draw the simple sketch of Laser beam machining and label the parts
7. List any three additives of plastics
8. What are the principal elements of a mechanical press?
9. Distinguish between the Jig and a Fixture
10. What is a jig boring machine and state its specific features?

**PART - B (10m x 5 = 50m)**

*Note 1: Answer any five questions and each carries 10 marks*

*\* 2: The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer*

11. Explain simple indexing with a sketch
12. Describe form cutting methods of making gears with the help of sketch.
13. Write short notes on the following bonding materials:  
 (a) Vitrified Bond (b) Silicate Bond (c) Shellac Bond (d) resinoid Bond
14. Explain the operation of Electric discharge machining with a sketch and state its advantages and limitations
15. Describe compression moulding of plastics with the help of sketch

16. List and explain various cutting operations by press tool
17. List various types of drill jigs and explain any two with the help of sketch
18. Write the constructional details and working of cross rail jig boring machine with neat sketch.

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