6245

BOARD DIPLOMA EXAMINATIONS SEPTEMBER/OCTOBER - 2020 **DME – THIRD SEMESTER**

PRODUCTION TECHNOLOGY-I

Time: 3 hours Max. 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 should not exceed Five simple sentences.
- 1. State the working principle of a lathe.
- What is Knurling? What is it purpose? 2.
- Write any three differences between Capstan and Turret Lathes. 3.
- 4. How shapers are classified?
- List out the quick return mechanisms used in a planar. 5.
- What is a cutting fluid? State primary function of a cutting fluid? 6.
- State the functions of coated electrodes in arc welding. 7.
- 8. List out different tools and equipment of Arc Welding.
- What is Optical Comparator and State its uses? 9.
- 10. Write any three types of Comparators.

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- **Instructions**: 1. Answer any **Five** questions
 - 2. Each question carries TEN Marks.
 - 3. Answer should be comprehensive and a criterion for valuation is the content but not the length of the answer.
- 11. Explain the Tail Stock Set-over method of taper turning by using a Lathe with a neat sketch.
- 12. Differentiate Automatic and Semi-automatic Lathes.
- 13. Draw the line diagram of double housing planer label its parts and explain construction details of table and bed only.
- 14. Explain the continuous broaching machine with a line diagram.
- 15. Explain different types of Lubricants.
- 16. Explain the working principle of TIG welding with a neat sketch. State its advantages and Limitations.
- 17. Explain Oxy-Acetylene gas Welding with a neat sketch. State its advantages and disadvantages.
- 18. Describe the working principle of optical comparator with a neat sketch.
