

4647

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH / APRIL - 2019

DME - V SEMESTER EXAMINATION MACHINE TOOL ENGINEERING

Time : 3 Hours [Total 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 shall not exceed five simple sentences.
- 1 State advantages and limitations of non-conventional machining over conventional machining.
- 2 What are the advantages of laser beam machining?
- 3 State any three limitations of Ultra sonic machining.
- 4 What is the purpose of the following additives of plastics?
 - (a) Asbestos,
- (b) Mica,
- (c) Carbon.
- 5 What is calendaring of plastics?
- What are the different types of dies? 6
- How a press is specified? 7
- 8 List out the press tool operations.
- 9 Differentiate between jigs and fixtures.
- 10 State the functions of jig boring machine.

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$PART - B 10 \times 5 = 50$

Instructions:

- (1) Answer any **FIVE** questions.
- (2) Each question carries TEN marks.
- (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- 11 Explain the principle of EDM with a neat sketch.
- Explain the abrasive jet machining with a sketch, stating its advantages and disadvantages.
- Explain the process of direct blow moulding with neat line diagram. Mention its advantages and limitations.
- **14** Explain the different stages involved in lamination of sheet with a line diagram.
- Explain the constructional details of a power press with the help of a legible sketch.
- 16 List and explain any four types of clamps used with jigs and fixtures.
- 17 List various press tool components. Explain each of them.
- 18 Explain about Button boring in lathe with a neat sketch.

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