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BOARD DIPLOMA EXAMINATION, (C–14)

MARCH/APRIL—2017

DME—FIFTH SEMESTER EXAMINATION

PRODUCTION TECHNOLOGY—III

Time : 3 hours] [*Total Marks* : 80

PART—A 3×10=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. What is dielectric? State its functions in electrical discharge machining.

2. State the principle of abrasive jet machining.

3. Write about wire EDM.

4. State the difference between thermoplastic and thermosetting plastics.

5. What is calendering of plastics?

6. Distinguish between blanking and punching.

7. Briefly explain the blanking and trimming operations in press work.

8. What is an indexing jig?

9. Name different types of bushes used in drill jig.

10. State the specific features of jig boring machine.

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 the operation of laser beam machining with neat sketch. State its advantages and disadvantages.

12. Explain the principle of chemical milling with neat sketch and state its advantages, limitations and applications.

13. Explain different stages involved in lamination of sheets with a line diagram.

14. Explain the principles of the following processes with neat sketch :

(a) Injection moulding

(b) Blow moulding

15. *(a)* Draw a neat sketch of simple die assembly and label the parts.

(b) Explain the clearances for blanking and piercing operations with neat sketches.

16. *(a)* What are the factors should be considered selecting a press for a given job?

(b) Explain piercing, bending and lancing operations.

17. Explain the following :

(a) Basic principle of location

(b) Basic principle of clamping

18. Draw cross-rail jig boring machine and explain its working.

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