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4254**BOARD DIPLOMA EXAMINATION, (C-14)****MARCH /APRIL-2019****DME – THIRD SEMESTER EXAMINATION****PRODUCTION TECHNOLOGY-I**Time: 3 hoursMax. Marks: 80**PART-A****10x3=30M**

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) List out any six operations that can be done on the engine lathe.
- 2) Write any three specifications of the engine lathe.
- 3) Write any three differences between semi automatic lathe and automatic lathe.
- 4) List out the work holding devices in shaper.
- 5) Write any three differences between shaper and planer.
- 6) List out the ram drive mechanisms used in slotter?
- * 7) List out the application of cutting fluids.
- 8) State the classification of welding processes.
- 9) Write any three advantages of welding.
- 10) Write any three differences between soldering and brazing.

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PART-B

5x10=50M

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) Draw the line diagram of engine lathe and describe functions of its parts.

12) (a) Write any five differences between capstan lathe and turret lathe. 5M

(b) Explain the taper turning by compound rest method. 5M

13) Sketch and explain the hydraulic drive mechanism in a planer.

14) Draw a line diagram of shaper. Label and explain the function of main parts.

15) (a) State the five advantages and five limitations of the broaching machine. 5M

(b) Draw a line diagram of vertical broaching machine and mention the parts on it. 5M

16) Explain the properties of the lubricants.

17) What are the various defects in welds? Explain the reasons for its occurrence in welds. 4+6=10M

18) With a neat diagram, explain the procedure of ultrasonic welding and state any two advantages. 4+4+2=10M

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