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B.E /B.TECH (FULL TIME) END SEMESTER EXAMINATIONS, APRIL/MAY 2019

MANUFACTURING ENGINEERING

II Semester

MF 8201 MACHINE TOOLS AND PROCESSES

(Regulation 2012)

Time: 3 Hours

Max. Marks 100

Answer ALL Questions

PART- A (10 x 2 = 20 Marks)

1. State any two differences between orthogonal and oblique cutting.
2. What is meant by surface integrity?
3. State the differences between boring and trepanning.
4. State the differences between reaming and boring.
5. State the differences between planner and shaper.
6. Name any four methods of manufacturing gear.
7. Name any four abrasives used in grinding operation.
8. State any two differences turning and dressing.
9. State any two differences between waterjet and abrasive waterjet machining.
10. Classify non-traditional machining processes.



PART – B (5 x 16 = 80)

- 11a. Explain the working principles of electric discharge machining with neat sketches.

(16)

12a. (i) Explain any four mechanisms of tool wear with neat sketches. (8)

(ii) Write a short note on chip formation process in machining. (8)

OR

12b. (i) Explain any four types of cutting tool materials. (8)

(ii) Write briefly about cutting fluids. (8)

13a. (i) With simple sketch explain various parts of the drill and its nomenclature. (8)

(ii) Explain any one thread cutting mechanism in lathe. (8)

OR

b. (i) State the difference between capstan and turret lathes. (8)

(ii) State the difference between screw type and automatic screw type lathes. (8)

14a. (i) Explain with simple sketch any eight types of milling cutters. (8)

(ii) Explain the quill mechanism in detail. (8)

OR

b. Explain with simple sketch the pull and push broaching machines. (16)

15. a) Explain the principles of tool and cutter grinding process with neat sketches. (16)

OR

b) Write briefly about economics of grinding and finish operation. (16)

