## D 4062

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2007.

Third Semester

(Regulation 2004)

Mechanical Engineering

ME 1203 — MANUFACTURING TECHNOLOGY — II

(Common to B.E. Part-time Second Semester Regulation – 2005)

Time : Three hours                                      Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   Differentiate orthogonal cutting and oblique cutting.

2.   State the main functions of a cutting fluid.

3.   Name any four types of cutting tool used in a lathe.

4.   What is meant by semi automatic lathe?

5.   List any two types of planning machine.

6.   Differentiate drilling and reaming.

7.   Explain buffing.

8.   What is broaching?

9.   Differentiate NC and CNC.

10.  List any four auxiliary statements in APT language.

PART B — (5 × 16 = 80 marks)

11.  (a)   What are the important properties required for cutting tool materials?
                                                                          (16)

Or

(b)   What is meant by tool wear? Explain at least four parameters that
influence tool wear.                                                      (16)

12. (a) With suitable sketch, explain any two taper turning methods. (16)

Or

(b) Using a neat sketch of a multi-spindle automatic lathe, explain its construction and working. (16)

13. (a) What is meant by quick return motion? With a neat sketch explain the quick return mechanism of a shaper. (16)

Or

(b) With suitable sketch, write notes on any four types of milling methods. (16)

14. (a) Write short notes on surface finishing processes. (16)

Or

(b) With a neat sketch, describe any two gear cutting methods. (16)

15. (a) (i) With suitable sketch, describe the types of CNC machine tools. (12)

(ii) Explain the special features available in a CNC machine. (4)

Or

(b) Describe the motion statement in APT language. Give the general form of motion statement and explain with suitable example the PTP and contouring motions. (6 + 10)

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