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B.E / B.Tech (Full Time) DEGREE END SEMESTER EXAMINATIONS

Apr- May 2011

B.E. Manufacturing Engineering

IV SEMESTER

MN 284 – MANUFACTURING PROCESS II

(R 2004)

Time: 3 Hrs

Max Marks: 100

Answer ALL Questions

Part – A (10 x 2 = 20 Marks)

1. Define Machinability.
2. Differentiate Between Orthogonal Cutting and Oblique Cutting?
3. How to Specify the Lathe machine tool
4. How to classify the Boring Machine?
5. State the uses of dividing head?
6. How do you specify the Milling Machine?
7. What is meant by Deburring?
8. State the functions of Abrasives in grinding process?
9. Write the essential characteristics of Cutting tool materials
10. Name the various Machine tool testing methods

Part –B (5 x 16 = 80 Marks)

11. a. Explain Various types of chips produced in metal cutting process with neat sketches (8)
b. Draw single point cutting tool explain with its nomenclatures (8)
12. a. i) What are the essential turning parameters to be considered in the machining process? (4)
ii) How are high speed machining process carried out? Explain any one method with neat sketch (12)

(OR)

(b) Write a short notes on following operations with neat sketches

1. Boring
2. Reaming (16)
3. Tapping
4. Deep drilling

- 13 (a) i) Name the various milling cutters and state the essential milling cutters characteristics? (8)
- ii) Differentiate between the planning and shaping (8)

(OR)

- (b) i) Explain the working principle of the rotary broaching machine with neat sketch (8)
- ii) Explain Gear Shaping process with neat sketch (8)

14. (a) i) How are abrasives classified state its essential characteristics (8)
- ii) Explain the working principle of centreless grinding machine with neat sketch (8)

(OR)

- (b) i) What is meant by finishing operation? (4)
- ii) Discuss the high speed and ultra grinding operation with neat sketch (12)

- 15 (a) i) Explain with illustrative sketches the constructional features provided in the machine tool structure to minimize the vibration (8)
- ii) How lathe machine tool testing is carried out, state its procedure? (8)

(OR)

- (b) i) Write the essential characterics of cutting tool materials (4)
- ii) How to calculate the cost estimations for turning, drilling, milling and shaping operation. (12)