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**B.E DEGREE EXAMINATIONS, APRIL/MAY 2011**

Third Semester

Manufacturing Engineering (R 2008)

**MF 9201 –MANUFACTURING PROCESSES-I**

Time: Three hours

Maximum: 100 Marks

Answer **ALL** questions

**PART A-(10 × 2 = 20 marks)**

1. What do you meant by oblique cutting?
2. Give some factors which affect the surface finish?
3. Write short note on change gears in lathe..
4. Why is milling a versatile machining process?
5. Define G Ratio.
6. Why wheel balancing is required in grinding?
7. Name two examples each gear generating and gear forming processes.
8. What is the relation between axes of hob and the gear blank for cutting helical gears?
9. What is the essential difference between automatic and semi automatic machines?
10. Write short note on Geneva mechanism.

**PART-B(5 x 16 =80 Marks)**

11. i) Discuss various types of tool wear. (8)  
ii) Derive relationship between various forces encountered in metal cutting. (8)
12. a)i) Explain any two indexing methods used in milling machine. (8)  
ii) Explain the important features of a boring machine with neat diagrams. (8)

Or

- b)i) Briefly explain the quick return mechanisms used in a planner. (8)
- ii) List and describe any four work holding devices used in lathe with neat sketches. (8)
13. a)i) Describe the process of gear shaping. (8)
- ii) Discuss any two gear finishing operations. (8)

Or

- b) Explain the procedure for cutting spur gear by milling. (16)
14. a)i) What is centreless grinding? Describe centreless grinding operations. (8)
- ii) Describe with neat sketch honing of cylinder bores. (8)
- Or
- b)i) Write short note on 1) Buffing 2) lapping (8)
- ii) Describe tool and cutter grinder with neat sketch. (8)
15. a)i) Give the Classification of Automats (8)
- ii) Explain with a neat sketch sliding head type single spindle automatic machine. (8)

Or

- b)i) Explain with a neat sketch turret automatic screw machine. (8)
- ii) Draw neat sketch and explain the function of a bar stop. (8)

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