

Roll No .....

**ME-6004 (CBGS)**

**B.E. VI Semester**

Examination, May 2019

**Choice Based Grading System (CBGS)**

**Metal Cutting and Machine Tools**

*Time : Three Hours*

*Maximum Marks : 70*

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) What is the importance of machining in modern industry?  
b) What is a turret lathe. Why is it more useful?
2. a) Name various methods of cutting external thread. Explain the working principle of any one method.  
b) Draw a neat sketch of a single point cutting tool and describe its features.
3. Explain the following:  
i) Up milling process  
ii) Specification of universal milling machine.
4. a) How are drilling machines classified?  
b) What is Broaching? What are its advantages and applications?

5. a) Describe the crank and slotted lever quick return motion mechanism.  
b) How is surface quality measured?
6. a) Explain forming of gear.  
b) Name various gear finishing operations and explain gear grinding process.
7. a) Define the following type of wear  
i) Flank wear  
ii) Chipping  
b) Explain the relationship of tool temperature and tool life.
8. Write short notes on any three  
i) Tool signature and nomenclature  
ii) Cylindrical grinding  
iii) Wheel turning and dressing  
iv) Centreless grinding

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