

Roll No .....

**ME-8003 (3) (CBGS)**

**B.E. VIII Semester**

Examination, November 2019

**Choice Based Grading System (CBGS)**

**Advance Machining Process**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:** i) Attempt any five questions.  
ii) All questions carry equal marks.  
iii) Draw neat diagram wherever required.

1. a) With the help of neat sketch explain the mechanism of material removal in abrasive jet machining process.  
b) Explain the advantages of Water Jet cutting over traditional cutting process with suitable examples.
2. a) Explain in detail the process parameters of MRR in ultrasonic machining.  
b) List in detail economic considerations, applications and limitations of Ultrasonic Machining.
3. a) Explain functions of electrolyte used in ECM and name three electrolytes with their specialties.  
b) Explain the principle of electrochemical grinding with neat sketch.

http://www.rgpvonline.com

http://www.rgpvonline.com

4. a) Explain in detail the fundamentals and mechanism of chemical machining.  
b) List out various advantages and applications of chemical machining.
5. a) Why EDM is called Un-conventional machining process? How it differs from conventional machining process? Discuss.  
b) Sketch and explain the rotary impulse generator type of power supply to EDM. Explain its functioning with special reference to MRR.
6. a) Discuss the factors that influence the quality of the cut in plasma arc machining. http://www.rgpvonline.com  
b) Write in detail about the process parameters of EBM.
7. a) What do you mean Rapid Prototyping and explain applications of Rapid Prototyping?  
b) What is the difference between 3D Printing, Additive manufacturing and Rapid prototyping?
8. a) What are the different types of Micro System Devices? Explain LIGA Process.  
b) What is Nano Fabrication? Explain techniques of nano fabrication.

\*\*\*\*\*

http://www.rgpvonline.com

http://www.rgpvonline.com