

Roll No. : .....

Total No. of Questions : 9 ] [ Total No. of Pages : 3

**22601**

M.Tech. (ME) 1st Semester  
Examination, March-2021  
(CBCS Scheme)

**MICRO MACHINING PROCESSES**  
Paper-MTME21C1

*Time : Three Hours ]*

*[ Maximum Marks : 100*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

*Note :- Question No. 1 is compulsory. Attempt total five questions by selecting at least one question from each Section.*

1. Explain the following :

(a) Honing Process

(b) What is metal removal rate ?

(c) Selection of tool material for non-conventional machining processes

(d) Di-electric material 5×4=20

**Section-A** 20 each

2. Explain in detail the various micro electrochemical systems.
3. Give detailed comparison of conventional machining processes and non-conventional machining processes.

**Section-B** 20 each

4. Explain the various materials used for micro-electro mechanical systems.
5. Explain in detail the principle and working of different types of transducers. Also write down their applications.

**Section-C** 20 each

6. Write down the principle and working of whirling jet machining with neat sketch. Also explain the various process parameters used for the process.

7. Write down the principle and working of ultrasonic machining with neat sketch.

**Section-D** 20 each

8. Explain in detail that how optimizations of surface finish is achieved in EDM process.
9. Explain in detail the principle and working process for electric discharge machining. Also write down the process variables for wire EDM.