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Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech.(ME) (E-I 2011 Onwards) (Sem.-6)****NON-TRADITIONAL MACHINING**

Subject Code : DE/ME-2.0

M.Code : 71252

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTION TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A****1) Answer briefly :**

- a) State limitations of conventional machining process.
- b) What do you mean by computer integrated manufacturing?
- c) What are the main applications of abrasive flow machining?
- d) What is chemical machining?
- e) List the advantages of ECM.
- f) What are the main functions of dielectric fluid used in EDM?
- g) What is hot machining?
- h) Name various dielectric fluid flushing methods.
- i) What are the main electrolytes used in ECM?
- j) Write two safety precautions for plasma arc machining.





**SECTION-B**

- 2) Give the classification of non-conventional machining processes.
- 3) What are the main process elements of water jet machining?
- 4) Explain with suitable diagrams the working principle of electrochemical machining.
- 5) Discuss the mechanism of material removal in laser beam machining process.
- 6) What are the advantages of hybrid machining processes? Discuss any one type of hybrid machining process.

**SECTION-C**

- 7)
  - a) Explain the mechanism of metal removal in electric discharge machining process.
  - b) What factors should be considered while selecting EDM electrode material?
- 8) Describe principle, process parameters, capabilities and applications of Ultrasonic machining.
- 9) Write short note on **Any Two** of the following :
  - a) Principle of abrasive flow machining.
  - b) Electrochemical honing.
  - c) Generation of electron beam.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**

