

20

2107068

**BACHELOR OF VOCATION**  
**Tool and Die Manufacturing**  
**Subject: Non-Conventional Machining Processes**  
**Subject Code: CBME-303**  
**Semester: Fifth**  
**July 2021**  
**Theory (External): 35 Marks**  
**Time: 03 Hours**

---

**Instructions to the Students**

1. This Question paper consists of two Sections. All sections are compulsory.
2. Section A comprises 10 questions of objective type in nature. All questions are compulsory. Each question carries 1 mark.
3. Section B comprises 8 essay type questions out of which students need to do any 5. Each question carries 5 marks.
4. Read the questions carefully and write the answers in the answer sheets provided.
5. Do not write anything on the question paper.
6. Wherever necessary, the diagram drawn should be neat and properly labelled

Roll Number									

**SECTION –A (SHORT/OBJECTIVE TYPE QUESTIONS)**  
(10x1=10 Marks)

- A. Which of the following are the different shielded plasmas used in PBM?
- Gas-shielded plasma
  - Water-shielded plasma
  - Gas-shielded & Water-shielded plasma
  - None of the mentioned
- B. The metal is removed in Plasma arc machining due to
- erosion
  - chemical reaction
  - melting of metal
  - grinding
- C. What is the need of unconventional machining process?
- D. Define Water jet machining.
- E. What are Dielectrics?
- F. Explain Power and control circuit.
- G. Write applications of Surface finish and MMR.
- H. Explain Principle of EBM.
- I. Write the applications of chemical machining.
- J. What are the Mechanical Energy based process.

**SECTION –B (ESSAY TYPE QUESTIONS)**  
(5x5=25 Marks)

- Classify the process of unconventional machining.
- Write short note on:  
(a) Surface finish and MMR  
(b) Wire cut EDM
- Differentiate Abrasive machining and Abrasive Water jet machining.
- Explain the process parameters used in Ultrasonic machining.
- What is the working principle of Electric discharge machining? List the equipment used.
- Explain the following terms:  
(a) Plasma arc machining  
(b) Electron beam machining
- Make a Difference table of Chemical Machining and Electrochemical Machining as per their process parameters.
- Explain the principle and application of Laser Beam Machining and Drilling.

==END OF PAPER==