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Total No. of Questions : 08]

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**M.Tech.**

**NON CONVENTIONAL MACHINING PROCESSES**

**SUBJECT CODE : PE - 507**

**Paper ID : [E0446]**

[Note : Please fill subject code and paper ID on OMR]

**Time : 03 Hours**

**Maximum Marks : 100**

**Instruction to Candidates:**

- 1) Attempt any **Five** questions.
- 2) **All** questions carry equal marks.

**Q1)** (a) What do you understand by the term 'non conventional machining'?

(b) How the non conventional machining processes can be classified?

**Q2)** (a) What are the requirements for the tool material for EDM? Discuss various tool materials.

(b) Discuss the main functions and types of dielectric fluids used in the electrical discharge machining.

**Q3)** Distinguish between chemical machining and electro chemical machining processes. How the process parameters affect material removal rate MRR in each case?

**Q4)** What is the principle of Electrical discharge machining? Discuss the equipment details and applications of this process.

**Q5)** Discuss the principle of Laser beam machining; also discuss its process capabilities and applications.

**Q6)** Explain the principle of explosive forming. Compare the confined and non confined explosive forming in detail.

Q7) (a) What are the functions of 'electrolyte' used in electrochemical machining?

(b) Write the working procedure of Electron beam machining.

Q8) Write short notes on the following:

(a) Ultrasonic machining

(b) Abrasive jet technology

