

Roll No. ....

Total No. of Questions : 08]

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## Paper ID [PE504]

(Please fill this Paper ID in OMR Sheet)

M.Tech.

WELDING TECHNOLOGY (PE - 504)

Time : 03 Hours

Maximum Marks : 100

### Instruction to Candidates:

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

**Q1)** What do you understand by solidification mechanism. Explain Epitaxial solidification.

**Q2)** What should be the basic characteristics of a power source used for arc welding Explain a thyristor controlled rectifier.

**Q3)** What are coated electrodes. Discuss the role of flux ingredients and shielding gases on electrodes.

**Q4)** What is cold pressure welding. Discuss the mechanism of cold pressure welding. Write the limitations of cold pressure Welding.

**Q5)** What is arc blow. Discuss the mechanism of arc blow. Write the effects and remedies of arc blow.

**Q6)** What is meant by metal transfer. Explain the mechanism of free-flight metal transfer.

**Q7)** Discuss the principle of operation of GMAW process. Write the advantages and disadvantages also.

**Q8)** Write notes on:

- (a) Heat affected zone.
- (b) Weldability.