Roll No. Total No. of Pages: 01

Total No. of Questions: 08

M.Tech.(PE) (Sem.-1)
WELDING TECHNOLOGY

Subject Code: PE-504 M.Code: 39005

Time: 3 Hrs. Max. Marks: 100

INSTRUCTION TO CANDIDATES:

- 1. Attempt any FIVE questions out of EIGHT questions.
- 2. Each question carries TWENTY marks.
- 1. Explain in brief the following:
 - a) Concept of epitaxial growth
 - b) Weldability
 - c) Heat affected zone
 - d) Gas-metal reactions
- 2. Explain the welding arc. What is the importance of arc characteristics? Sketch and explain different arc characteristics.
- 3. What is electrode coating? Give a detailed classification of coatings of electrodes for SMAW.
- 4. Define SAW process. Explain with the help of diagram the principle of operation. State its advantages and limitations.
- 5. Elaborate the basic characteristics of power sources for various arc welding processes.
- 6. Explain various modes of metal transfer. Discuss the effect of polarity on metal transfer and melting rate.
- 7. Discuss in detail the working, advantages, disadvantages and applications of friction welding.
- 8. What is a Laser? Discuss the principle of operation, applications of Laser beam welding process.

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.

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