

Printed Pages—2

EME022

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 2533

Roll No.

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**B.Tech.**

(SEM. VI) THEORY EXAMINATION 2010-11

**ADVANCED WELDING TECHNOLOGY***Time : 2 Hours**Total Marks : 50***Note :** (1) Attempt all questions.

(2) All questions carry equal marks.

1. Write notes on any four parts of the following : (4×3=12)

- Classification of Welding Process.
- Low temperature Welding.
- Resistance welding and its application.
- Comparison of AC and DC welding.
- Soldering and Brazing.
- Welding of Stainless Steel.

2. Attempt any two parts of the following : (2×6=12)

- Explain the method of Laser Beam Welding. Compare its advantages and disadvantages with Laser Beam Welding.
- What is Plasma Arc Welding ? Explain giving suitable sketch. Also give its advantages over other welding techniques.

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- (c) Explain the working of Ultrasonic welding process giving its application. Compare it with other welding methods.
3. Attempt any two parts of the following : (2×6=12)
- (a) Explain Under water welding method giving suitable sketch. Also give its advantages and its applications.
- (b) What do you understand by Metallising and Hard facing ? Explain the process giving its applications and advantages.
- (c) Explain the process of Explosive Welding. Where such welding process is used with advantage, explain giving its applications.
4. Attempt any two parts of the following: (2×7=14)
- (a) What do you understand by HAZ ? How does it affect the welded joint ? Explain giving suitable examples and reasons.
- (b) How would you proceed for Inspection and Testing of a welded Joint ? Discuss in detail.
- (c) What do you understand by Residual Stresses in Welded joint ? How it affects the welded joint ?