

Roll No.

23002/23053

**(Mechanical Engg. Manufacturing
Technology and Automation.) 1st
Semester Examination – January, 2012**

WELDING & ALLIED PROCESSES

Paper : M-603

Time : Three hours]

[Maximum Marks : 100

*Before answering the questions, candidates should ensure that they
have been supplied the correct and complete question paper. No
complaint in this regard, will be entertained after examination.*

*Note : Attempt any five questions. All questions carry
equal marks.*

1. (a) Briefly explain the process of Submerged Arc.
Welding. 10

- (b) Explain the TIG and MIG systems of arc welding.
Give the application of each. 10

2. (a) How do you specify an electric arc welding power source? 10

(b) Explain the characteristics of arc welding mechanics viz., constant current and constant voltage. 10

3. (a) Explain the Principles and Working of Ultrasonic Welding process. 10

(b) Briefly explain the main features and application of Friction Welding. 10

4. (a) Explain the processes of Welding of Plastics. 10

(b) How is an Arc obtained in arc welding? Explain. 10

5. (a) Explain the principle and procedures of Thermal Spraying. 10

(b) Explain the following surfacing method :

(i) TIG

(ii) SAW 10

6. (a) Explain the Principle and Operation of Flame cutting. 10

(b) Briefly describe the Principle and Operation of Plasma cutting. 10

7. (a) Explain methods and Application of Under Water Welding. 10

(b) Briefly describe the Automatic and Flexible automated welding. 10

8. (a) What is Robotic Welding ? Classify and explain the types of welding Robots. 10

(b) Explain the following :

10

(i) Robot Selection Mechanics,

(ii) Joint Tracking System.
