

Reg. No. : .....

Name : .....

**Fifth Semester B.Tech. Degree Examination, November 2014  
(2008 Scheme)**

**08.506.7 : ADVANCED WELDING TECHNOLOGY (MPU)**

Time : 3 Hours

Max. Marks : 100

**PART – A**

Answer **all** questions. **Each** carries **4** marks.



1. Mention where plasma arc welding is suitable.
2. How is heat generated in electron beam welding ?
3. What are the equipments required for arc-welding ?
4. What is welded decay ?
5. Specify the need of flux in welding.
6. What are the limitations of laser beam welding ?
7. What is adhesive bonding ?
8. Divide welding processes into categories.
9. What are the process capabilities of friction welding ?
10. Describe the advantages of explosive welding. **(10×4=40 Marks)**



## PART – B

Answer **one** question from **each** Module. **Each** question carries **20** marks.

**Module – I**

11. Write on the subject of electron-beam welding including the following.

- i) Principle of operation
- ii) Joint preparation
- iii) Work-piece cleaning
- iv) Work-piece demagnetization
- v) Welding process.

OR

12. a) With neat sketches explain any two types of laser sources.

- b) What are the various parameters that affect weld quality in LBW ? Explain them.

**Module – II**

13. a) Explain the theory and key variables of explosive welding.

- b) Describe the weld quality, equipment and tooling of explosive welding.

OR

14. a) What are the different types of adhesives used for bonding plastics ?

- b) Explain the various types of adhesive joint geometrics and state their comparative advantages.

**Module – III**

15. a) Explain the basic principles of friction welding.

- b) Explain the different stages of friction welding.

OR

16. Explain the theory, mechanism, key variables and equipment of vacuum brazing.

**(3×20=60 Marks)**