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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)**

P.T.O.

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)