

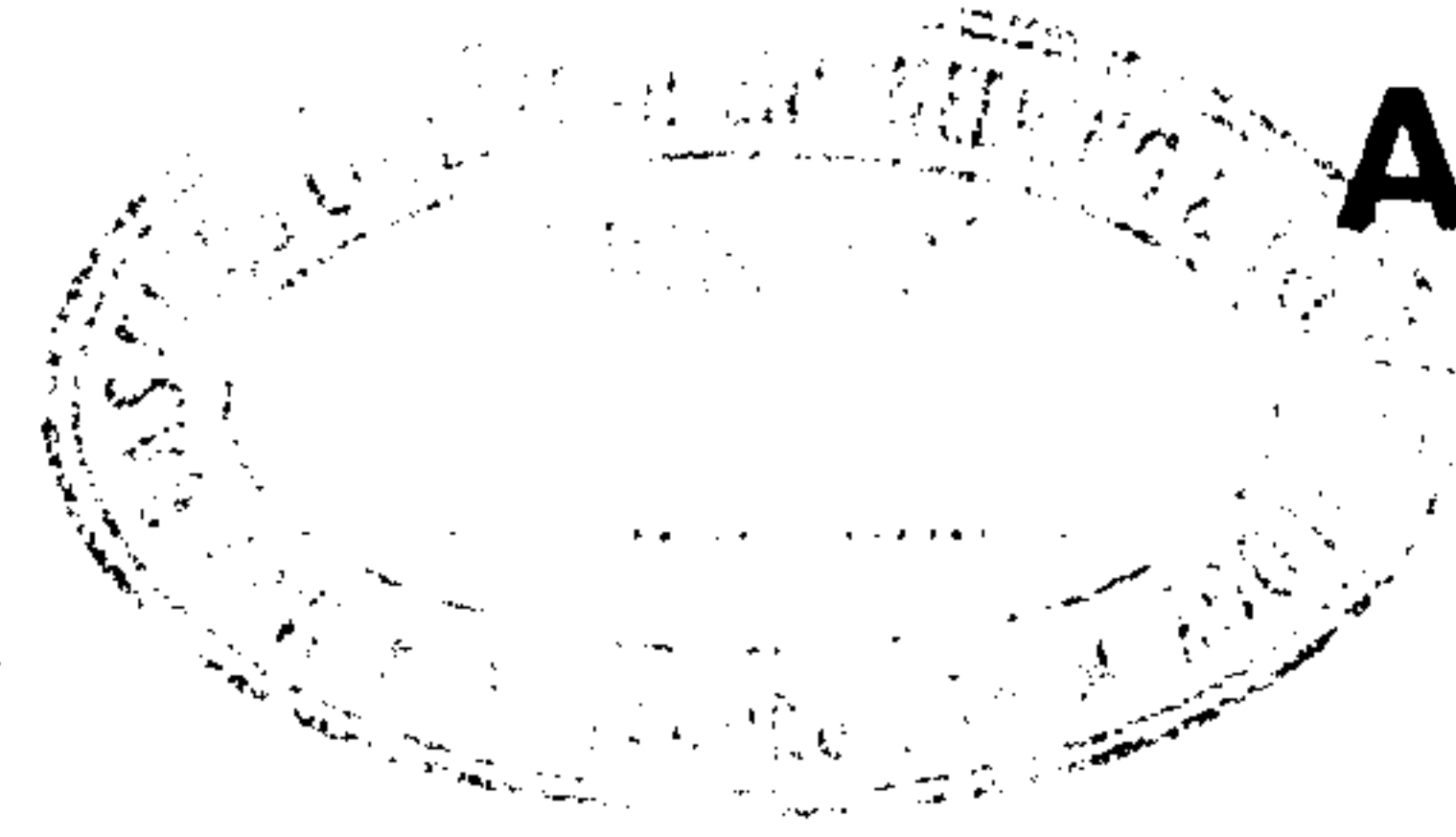


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A – 6496

Reg. No. :

Name :



**Fifth Semester B.Tech. Degree Examination, October 2016
(2013 Scheme)
13.506.6 : NON DESTRUCTIVE TESTING (MPU)**

Time : 3 Hours

Max. Marks : 100

PART – A

1. List the materials involved in liquid penetrant testing methods.
2. What is meant by Holography ?
3. Mention the factors affect Radiographic sensitivity.
4. What are the various unsharpness that contribute to the definition to the image in radiography test ?
5. How ultrasonic waves are produced ?
6. Give the limitations of using magnetic particle testing.
7. What are the different probe used in eddy current testing ?
8. List the various leak testing methods.
9. What do you mean by active and passive thermo graphic methods ?
10. Name the NDT method suited for heat exchanger tube testing. **(10×2=20 Marks)**

PART – B

Module – I

11. i) What is a Holograph ? How can it be used in NDT ? Explain. **8**
ii) Which type of penetrant process would be best suited to the detection of wide, shallow discontinuities ? **12**
- OR**
12. i) Explain the process of DPT. **14**
ii) Compare destructive and non-destructive testing. **6**

P.T.O.



Module – II

13. Explain the various techniques used in the testing of a pipe line by Radiography method. 20

OR

14. i) Differentiate between film radiography and digital radiography. 10

ii) Briefly explain IQI. 10

Module – III

15. Explain the different scan mode of ultrasonic techniques in detail and hence discuss its application to inspect the porosity of material. 20

OR

16. i) Explain briefly on production of ultrasonic waves. 10

ii) Briefly explain the process of MPT. 10

Module – IV

17. i) Explain eddy current inspection. 10

ii) Elaborate the principles of acoustic emission techniques. 10

OR

18. What are the various methods used in leak detection ? 20

(4x20=80 Marks)

