

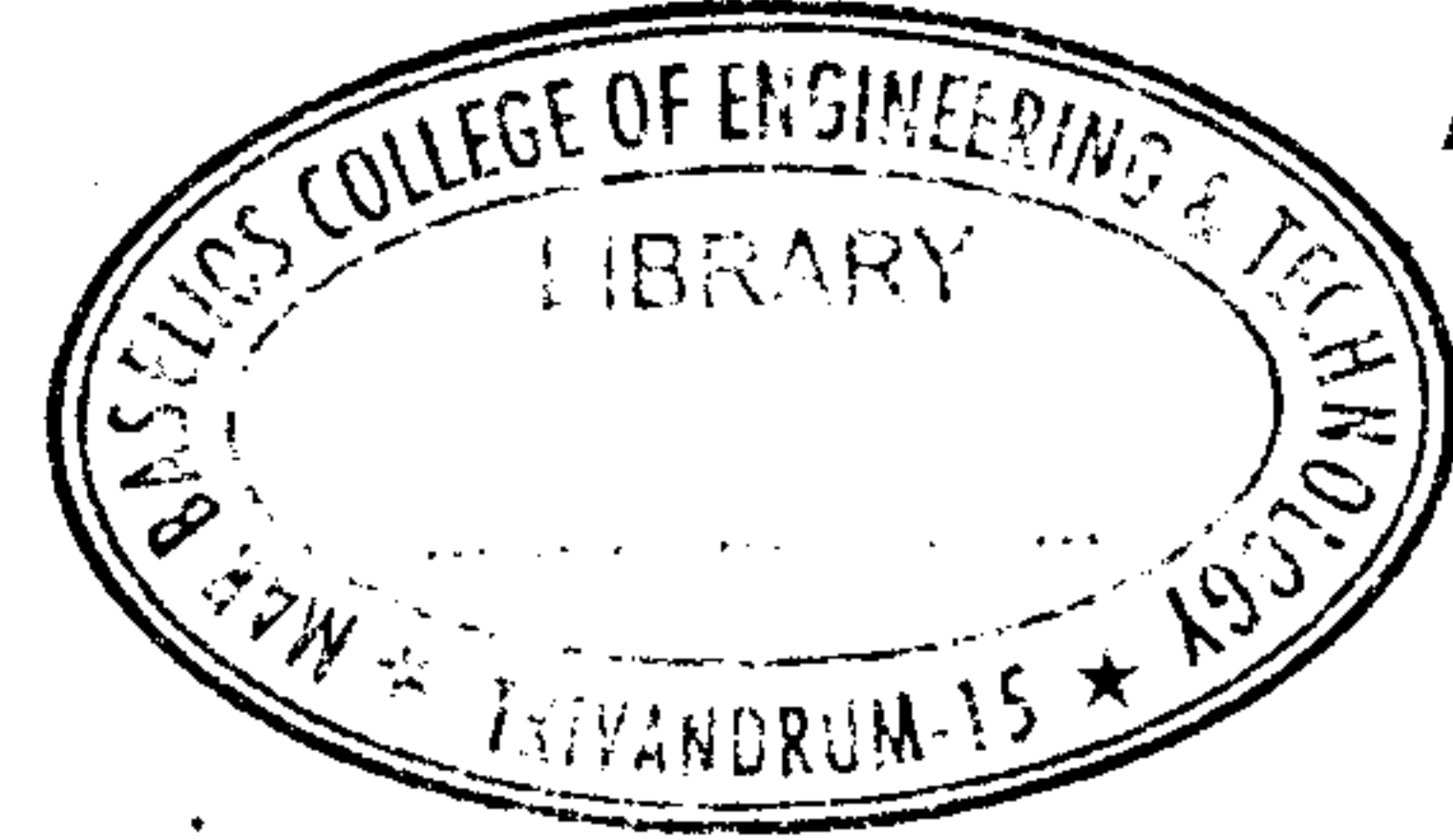


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A – 6390

Reg. No. :

Name :



**Fifth Semester B.Tech. Degree Examination, September 2016
(2008 Scheme)
(Elective – I)**

08.506.13 : NON DESTRUCTIVE TESTING

Time : 3 Hours

Max. Marks : 100

Answer **all** questions from Part – **A** and **any one full** question from each Module of Part – **B**.

PART – A

Each question carries **4** marks :

1. Differentiate between destructive testing and non destructive testing.
2. What are the limitations of visual inspection ?
3. What are the safety methods adopted for radiography testing ?
4. Explain the process of developing radiography films.
5. Write short note on helium spectroscope used for leak testing.
6. Which NDT method is most suitable for testing pipe bends of 25 NB size ?
7. What are the different types of probes used in eddy current testing ?
8. Mention the different methods for leak testing.
9. What are the advantages of dye penetrant testing ?
10. What are the desirable properties of developers ?

(10×4=40 Marks)

P.T.O.



PART – B

Module – I

11. a) Explain the various steps of penetrant testing. 10
b) Briefly explain different methods for penetrant application with examples. 10
12. a) What are the limitations of dye penetrant testing ? 10
b) Write short note on fiberscope. 10

Module – II

13. a) What are the different types of ultrasonic waves ? 10
b) Explain the different types of transducers used in ultrasonic testing. 10
14. a) Explain the different techniques used for radiography testing of pipes. 10
b) What are the characteristics of gamma rays ? How is it generated ? 10

Module – III

15. a) Explain the process of acoustic emission test. 10
b) What is skin effect ? 10
16. a) What are the limitations and applications of eddy current testing ? 10
b) What are the factors to be considered for the selection of an NDT technique for a particular application ? 10

