



Reg. No. :

Name :

Fifth Semester B.Tech. Degree Examination, November 2013

(Elective – I)

08.506.13 : NON DESTRUCTIVE TESTING (MPU)

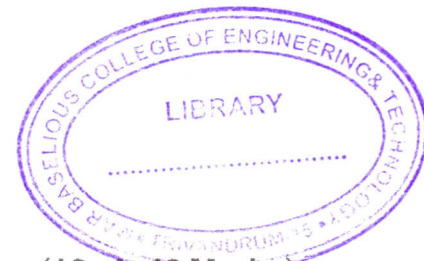
Time: 3 Hours

Max. Marks : 100

PART – A

Answer **all** questions.

1. What are the basic requirements of a good developer ?
2. What is the basic principle of penetrant testing ?
3. Write short note on radiography films.
4. Briefly explain any one of the leak testing method.
5. A copper bar of thickness 5 inch is to be tested for internal flaws. Which is the most appropriate method for testing ? Why ?
6. Suggest a suitable method to inspect heat exchanger tubes.
7. Write notes on skin effect.
8. What are the different types of probes for ultrasonic testing ?
9. Is it essential to use image quality indicators ?
10. What are the advantages of acoustic emission testing ?



(10×4=40 Marks)

P.T.O.



PART – B

Answer **any one** question from **each** module.

Module – I

11. a) Explain the various instruments used for visual inspection.
b) How are the penetrants classified ? Briefly explain.
OR
12. a) What are the different types of developers ? Explain any one of the developer.
b) Explain the process of DPT.

Module – II

13. a) Explain the different types of sound waves used for ultrasonic testing.
b) What are the medical applications of radiography ?
OR
14. a) What are the different techniques used for radiography testing of a pipe joint ?
b) What are the characteristics of gamma rays ?

Module – III

15. a) What are the advantages and disadvantages of magnetic particle inspection ?
b) Write short note on hysteresis loop test.
OR
16. a) Explain the working of acoustic emission test.
b) Explain the process of eddy current testing. (3×20=60 Marks)