



Seventh Semester B.E. Degree Examination, Aug./Sept. 2020

Non Destructive Testing

10AU761

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. What is the purpose of NDT? (04 Marks)
b. Mention in detail the benefits of NDT. (10 Marks)
c. Name the essential parts of Non Destructive Test. (06 Marks)
- 2 a. Explain Yoke method and coil method for generation of magnetic field. (10 Marks)
b. Explain the procedure used for testing a component by magnetic method. (10 Marks)
- 3 a. Differentiate between absolute oil arrangement and differential oil arrangement. (10 Marks)
b. Explain operating variables
i) Oil impedance
ii) Electrical conductivity. (10 Marks)
- 4 a. Explain the applications and limitations of microwave inspection. (10 Marks)
b. Describe the working of microwave holography with neat sketch. (10 Marks)

PART – B

- 5 a. Mention in detail the basic equipments of ultrasonic inspection systems. (10 Marks)
b. Explain five major variables in ultrasonic inspection. (10 Marks)
- 6 a. Explain A – Scan method for pulse echo. (10 Marks)
b. Brief about transducer elements. (10 Marks)
- 7 a. Explain about the principles of Radiography and give its applicability. (10 Marks)
b. Give an explanation of non contact temperature sensor and contact temperature sensor. (10 Marks)
- 8 a. Differentiate between advantages and disadvantages of optical holographic interferometry. (10 Marks)
b. Make a note on Holographic testing applications. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8 = 50, will be treated as malpractice.