

R18

Code No: 158CE

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, September - 2022

PRACTICAL NON-DESTRUCTIVE TESTING

(Aeronautical Engineering)

Time: 3 Hours

Max.Marks:75

**Answer any five questions
All questions carry equal marks**

1. Critically discuss on an overview of the non-destructive testing methods for the detection of manufacturing defects. [15]
- 2.a) What are the advantages, limitations and applications of NDT evaluation?
b) Discuss the physical characteristics of the materials and their applications in NDT. [8+7]
3. Explain the testing procedure and interpretation of results in liquid penetrant testing method. [15]
- 4.a) Discuss the advantages and limitations of thermography testing.
b) Discuss different types of probes used in eddy current method. [8+7]
- 5.a) Explain the types of arrangement used, advantages, limitations and applications of eddy current testing.
b) What can be inferred by thermography test? Explain the advantages and limitations of this test. [8+7]
6. Discuss different scanning methods in ultrasonic testing. [15]
- 7.a) Discuss about types and uses of filters and screens used in X-ray method.
b) What is computed tomography? Explain. [8+7]
8. Discuss about characteristics of X-ray films and characteristic curves. [15]

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