

Register No.:

688

April 2024

Time – Three hours
(Maximum Marks: 100)

- [N.B. 1. Answer all questions under Part-A. Each question carries 3 marks.
2. Answer all the questions either (A) or (B) in Part-B. Each question carries 14 marks.]

PART – A

1. List any three differences between destructive and non-destructive testing.
2. How visual inspection helps in non-destructive testing?
3. What is magnetic reluctance?
4. What is meant by demagnetization?
5. Write the principle of Eddy current testing.
6. What is 'Lift off' and 'Fill Factor' in Eddy current testing?
7. What is sensitivity and resolution in radiography inspection?
8. List any three applications of radiography inspection.
9. List the applications of optical holography.
10. What is acoustical holography?

[Turn over.....

PART – B

11. (a) Discuss about industrial borescope with necessary diagrams. Also list its applications.
(Or)
(b) Explain the working principle of laser inspection and its usages.
12. (a) Explain any three magnetization techniques used in magnetic particle inspection with neat sketches.
(Or)
(b) Discuss about inspection of casting and forging.
13. (a) Explain the construction and working of reflection probe and differential probe used in eddy current testing with neat sketch.
(Or)
(b) Discuss the various factors and effects related to eddy current testing.
14. (a) Explain the principle of radiography inspection with necessary diagrams. Also discuss about its various radiation sources.
(Or)
(b) Write short notes on:
(i) Pentameter radiography
(ii) Neutron radiography
15. (a) Explain the process of holographic recording with neat sketch.
(Or)
(b) Discuss the procedures of inspection in optical holography.
