

**MASTER OF SCIENCE
(INFORMATION SECURITY)
(MSCIS)**

Term-End Examination

December, 2025

**MSE-033 : WEB APPLICATION
TESTING AND AUDIT**

Time : 3 Hours

Maximum Marks : 100

Note : *Question No. 1 is compulsory. Attempt
any **three** questions from the rest.*

1. (a) Briefly explain the methods to exploit privilege escalation vulnerability. 10
- (b) What do you understand by Hashing ? What are the requirements for a strong Hash function ? Also state the application of Hash function. 2+4+4
- (c) What is brute-force attack ? State the various types of brute-force attack. 10

- (d) List out the best practices in session management. 10
2. (a) Define Mobile Application Forensic (MAF). List the steps to be adopted to identify the data breach and collect evidence for legal action. Also write the purpose of MAF. 10
- (b) List any *five* web service security related standards. 5
- (c) Briefly explain XML document structure. 5
3. (a) List out the various types of Web API attacks and corresponding mitigation strategies. Also, explain best practices for securing APIs. 10
- (b) Explain Node.js Web Application Architecture. 10
4. Explain the various most effective methods to counter Brute-Force Attacks. 20

[3]

5. Write short notes on the following : 4×5=20

- (a) XML signature
- (b) PEM protocol
- (c) Capabilities of HTML5 over HTML
- (d) Information Security goals

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