

Enrollment No./Seat No.:

GUJARAT TECHNOLOGICAL UNIVERSITY
M.SC INTEGRATED - SEMESTER - IX EXAMINATION - WINTER 2025

Subject Code: 1390306

Date: 20-11-2025

Subject Name: Ethical Hacking

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Use of simple and non-programmable scientific calculators are permitted.**

| | Marks |
|--|--------------|
| Q.1 (a) Define Ethical hacking. | 03 |
| (b) Describe the concept of legality and ethics in ethical hacking. | 04 |
| (c) Discuss the attacker's process versus the ethical hacker's process with examples. | 07 |
| Q.2 (a) List and Explain two tools used for information gathering. | 03 |
| (b) Describe the concept of enumeration in ethical hacking. | 04 |
| (c) Discuss the techniques for scanning and foot printing with real-world tools. | 07 |
| OR | |
| (c) Explain how to identify active machines in a network with example. | 07 |
| Q.3 (a) What is spyware? | 03 |
| (b) Explain the difference between viruses and worms. | 04 |
| (c) Discuss malware threats such as sniffers, session hijacking, and DoS /DDoS attacks. | 07 |
| OR | |
| (a) Mention two examples of Trojan attacks. | 03 |
| (b) Describe covert communication methods in malware. | 04 |
| (c) Explain the importance of keeping ethical hacking legal and documented. | 07 |
| Q.4 (a) What is a firewall? | 03 |
| (b) Explain the use of honeypots in network defense. | 04 |
| (c) Discuss firewalls, IDS, and social engineering with real-world scenarios. | 07 |
| OR | |
| (a) What is the role of security and the stack in ethical hacking? | 03 |
| (b) Explain malware countermeasures in ethical hacking. | 04 |
| (c) Compare different methods of session hijacking and prevention. | 07 |
| Q.5 (a) What is web application hacking? | 03 |

- (b)** Describe how wireless LANs can be attacked. **04**
- (c)** Discuss web server, application, and database hacking with countermeasures. **07**

OR

- (a)** Compare hacker, cracker, and ethical hacker roles **03**
- (b)** Explain how ethical hacking helps organizations comply with cybersecurity regulations. **04**
- (c)** Discuss social engineering techniques and how they can be mitigated. **07**
