

Enrolment No. /Seat No.: _____

GUJARAT TECHNOLOGICAL UNIVERSITY
MCA INTEGRATED – SEMESTER VII- EXAMINATION –WINTER-2025

Subject Code: 2678603
Subject Name: Cyber Security
Time:10:30 AM TO 01:00 PM
Instructions:

Date: 17/11/2025

Total Marks: 70

1. Attempt all questions.
2. Make Suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Use of simple calculators and non-programmable scientific calculators are permitted.

- Q.1** (a) Explain man-in-the-middle attacks with appropriate diagram. **07**
(b) Explain Tunneling Techniques. **07**

- Q.2** (a) Explain SQL injection attack. How we protect against SQL Injection? **07**
(b) Explain the deep web and darknets. **07**

OR

- (b) Explain form grabbing. **07**

- Q.3** (a) Explain stack-based buffer overflows. **07**
(b) What is digital forensics? Explain digital forensics process. **07**

OR

- Q.3** (a) Explain traditional attacks Versus Advanced Persistent Threat (APT) attacks. **07**
(b) Explain redundant array of inexpensive disks. **07**

- Q.4** (a) What is cyberbullying ? Explain cyberharassment and cyberstalking. **07**
(b) Explain registry and prefetch files. **07**

OR

- Q.4** (a) Explain centralized and de-centralized botnet infrastructures. **07**
(b) What is open source? Explain benefits of open source tools. **07**

- Q.5** (a) Explain the most popular forms of cryptocurrency: bitcoins and dash. **07**
(b) What is race condition? Explain methods for detection and prevention of race condition. **07**

OR

- Q.5** (a) Explain fraud techniques. **07**
(b) Explain vulnerabilities of software, hardware, and networks. **07**
