

**2024/TDC (CBCS)/EVEN/SEM/
CSCDSE-602T/141**

TDC (CBCS) Even Semester Exam., 2024

COMPUTER SCIENCE

(6th Semester)

Course No. : CSCDSE-602T

(Information Security and Cyber Laws)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

*The figures in the margin indicate full marks
for the questions*

UNIT—I

1. Answer any four of the following questions :

1×4=4

- (a) Define hardware vulnerability in the context of cyber security.
- (b) What is botnet?
- (c) What is cyber criminology?
- (d) Write the importance of cyber law.
- (e) What is cloud security?

(2)

2. Answer any *one* of the following questions : 2
- (a) Why is data security important?
 - (b) Describe a scenario where software vulnerabilities lead to a cyber attack.
3. Answer any *one* of the following questions : 8
- (a) What are the various modes of committing digital crime? Explain.
 - (b) Discuss the concept of computer network as a threat.

UNIT—II

4. Answer any *four* of the following questions :
1×4=4
- (a) What is spoofing?
 - (b) Give an example of malicious software.
 - (c) What is session hijacking?
 - (d) What is the purpose of password in cyber attacks?
 - (e) Which technique involves falsely identifying oneself to gain unauthorized access?

(3)

5. Answer any *one* of the following questions : 2
- (a) Differentiate between active and passive information gathering techniques used by attackers.
 - (b) What are the potential consequences of session hijacking attack on web application?
6. Answer any *one* of the following questions : 8
- (a) Define cyber warfare. What kind of cyber weapons is used in cyber warfare? Discuss the different types of cyber warfare attacks.
 - (b) Explain some cyber security tools commonly used by attackers for information gathering.

UNIT—III

7. Answer any *four* of the following questions :
1×4=4
- (a) What is the primary purpose of risk analysis in computer security?
 - (b) What is the need of security policies?
 - (c) Explain the concept of passwordless authentication in brief.
 - (d) Mention one technique to authenticate a valid user.
 - (e) What is the goal of incident response?

(4)

8. Answer any *one* of the following questions : 2

- (a) How does biometric authentication method enhance security?
- (b) What are the key principles of conversational computer security?

9. Answer any *one* of the following questions : 8

- (a) Discuss various authentication methods including their strengths and weaknesses.
- (b) Define the following terms : 3+3+2=8
 - (i) Internal threat
 - (ii) Computer forensics and incident response
 - (iii) Access control

UNIT—IV

10. Answer any *four* of the following questions :

1×4=4

- (a) Mention two types of threats.
- (b) What do you mean by ciphers?
- (c) What do you mean by flaw?
- (d) What is private key cryptography?
- (e) Give an example of public key cryptography.

24J/772

(Continued)

(5)

11. Answer any *one* of the following questions : 2

- (a) Compare symmetric and asymmetric key cryptographies.
- (b) Explain active and passive attacks.

12. Answer any *one* of the following questions : 8

- (a) Describe the features of Caesar cipher. Write the advantages and disadvantages of Caesar cipher.
- (b) Discuss the concept of public key encryption with an example.

UNIT—V

13. Answer any *four* of the following as directed :

1×4=4

- (a) Cyber laws are covered under the IT Act,

(Fill in the blank)

- (b) What does firewall do in cyber security?
- (c) What is IPC?
- (d) Write the purpose of Section 66 A of the IT Act.
- (e) Punishment of violation of privacy comes under the IPC Section 66 E.

(Write True or False)

24J/772

(Turn Over)