

BACHELOR OF COMPUTER APPLICATIONS (CBCS - 2018 COURSE)
B.C.A. Sem-V : WINTER : 2024
SUBJECT: INFORMATION SECURITY CONCEPTS

Day : Saturday
Date : 04/01/2025

W-22708-2024

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.

1. Q. No. 4 from SECTION – I is **COMPULSORY**.
2. Answer any **TWO** questions from Q. 1, 2, 3 in **SECTION – I**.
3. Answer any **TWO** questions from Q. 5, 6, 7 in **SECTION – II**.
4. All questions carry **EQUAL** marks.
5. Answers to both the sections should be written in **SAME** answer book
6. Draw a labelled diagram **WHEREVER** necessary.

SECTION – I

- Q.1** Answer the following: (6 marks $\times$ 2 = 12 Marks) (12)
- a) Discuss the benefits and challenges of implementing security models and principles in real – world cyber security environments.
 - b) Explain the main security risks associated with Wireless Local Area Networks (WLAN's) and discuss best practices to enhance WLAN security.
- Q.2** Answer the following: (6 marks $\times$ 2 = 12 Marks) (12)
- a) Define the principles of confidentiality, integrity, and availability in information security. Discuss how they contribute to a comprehensive security framework.
 - b) Discuss the importance of fire protection measures in ensuring the safety of data and IT infrastructure within an organization.
- Q.3** Answer the following: (6 marks $\times$ 2 = 12 Marks) (12)
- a) Define what a firewall is and explain its primary purpose in network security.
 - b) Discuss necessity of Power protection in IT industries.
- Q.4** Write a short note on any **THREE** of the following: (4 marks $\times$ 3 = 12 Marks) (12)
- a) Vulnerability
 - b) ITIL Framework
 - c) VPN
 - d) MS SQL databases authentication
 - e) ISO 27001

SECTION – II

- Q.5** Answer the following: (6 marks $\times$ 2 = 12 Marks) (12)
- a) Discuss the importance of Windows security. Describe best practices for securing Windows system.
 - b) What is continuous security testing? Why it is essential?
- Q.6** Answer the following: (6 marks $\times$ 2 = 12 Marks) (12)
- a) Discuss the role of UNIX security policies in improving the overall security posture of UNIX operating systems.
 - b) Define database security and explain its importance in protecting sensitive data.
- Q.7** Answer the following: (6 marks $\times$ 2 = 12 Marks) (12)
- a) What is the purpose of the Information Technology (IT) Act, 2000? Discuss how the Act validates electronic documents and signatures for legal purposes.
 - b) What are the different steps to secure web application?