

**BACHELOR OF TECHNOLOGY (CBCS) (2020 COURSE)**  
**B.Tech.Sem - VIII INFORMATION TECHNOLOGY : SUMMER : 2025**  
**SUBJECT: INFORMATION SECURITY**

Day : Friday  
Date : 23/05/2025

**S-24767-2025**

Time : 02:30 PM-05:30 PM  
Max. Marks : 60

**N.B :**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Draw neat and labeled diagrams **WHEREVER** necessary.
- 4) Assume suitable data if necessary.
- 5) Use Non-Programmable **CALCULATOR** is allowed.

**Q.1** Describe the three primary goals of information security. Provide examples of each marks. (10)

**OR**

**Q.1** Explain the concept of a vulnerability in the context of information security. Discuss common types of vulnerabilities (10)

**Q.2** Explain the difference between authentication and authorization. Provide examples of each. (10)

**OR**

**Q.2** Discuss three common types of authentication mechanisms used in information security. Evaluate their strengths and weaknesses in different contexts. (10)

**Q.3** Define information security policies. Discuss the key components that should be included in an effective information security policy. (10)

**OR**

**Q.3** Explain the importance of data security. Discuss at least three key measures organizations can implement to enhance data security. (10)

**Q.4** What is meant by Threat Management? Explain the concept of threat modeling in information security. (10)

**OR**

**Q.4** Explain the importance of conducting threat analysis in information security risk management. Describe the steps involved in performing a thorough threat analysis. (10)

**Q.5** Discuss the types of audits commonly performed in a Windows environment. Explain the importance of audit logs in enhancing security. (10)

**OR**

**Q.5** Explain the key principles of server security in both Windows and Linux environments. Compare and contrast security measures such as access control, service hardening. (10)

**Q.6** Discuss three current trends in information security and their implications for organizations. (10)

**OR**

**Q.6** Explain the benefits of cloud computing for organizations and the challenges it presents in terms of information security. (10)

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