

BACHELOR OF TECHNOLOGY (CBCS) (2020 COURSE)
B.Tech.Sem - VIII INFORMATION TECHNOLOGY : SUMMER : 2024
SUBJECT: INFORMATION SECURITY

Day : Wednesday
Date : 22/05/2024

S-24767-2024

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 CIA triad model of information security. How does this model help organizations in designing and implementing effective security measures? (10)

OR

Q.1 Describe the terms attacks and a vulnerability in the context of information security. (10)

Q.2 Describe the role of firewalls in network security and discuss their respective advantages and limitations. (10)

OR

Q.2 What is intrusion detection system? Compare and contrast host-based and network-based intrusion detection systems. (10)

Q.3 Describe the role of backups, archival storage, and data disposal in ensuring data integrity and availability. (10)

OR

Q.3 Discuss the concept of intellectual property rights in the context of information security policies. Explain why protecting intellectual property is important for organizations. (10)

Q.4 Examine the different types of email and web based threats encountered by organizations. Discuss the techniques used by attackers to exploit email and web vulnerabilities. (10)

OR

Q.4 Discuss the importance of threat awareness in information security. Explain why organizations need to raise awareness among employees about security threats. (10)

Q.5 Discuss the challenges and limitations associated with antivirus solutions and propose strategies for enhancing endpoint protection. (10)

OR

Q.5 Discuss techniques used by attackers to deliver malware via email and strategies for mitigating these threats, including email filtering issues identified by OWASP. (10)

Q.6 Discuss strategies for mitigating cloud security risks and ensuring the confidentiality, integrity, and availability of data in the cloud. (10)

OR

Q.6 Discuss the role of COBIT (Control Objectives for Information and Related Technologies) in information security governance. Explain how COIBT frameworks help organizations. (10)

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