

Be sem III | IT | c-scheme | Nov 25 | 18.11.25

qp code - 95051

(11)

(Time: 3 Hours)

(Total Marks: 80)

N.B.: (1) Question No. 1 is compulsory.

(2) Out of the remaining questions, attempt any three.

(3) Figures to the right indicate full marks.

- Q1) Solve any Four.** **20**
- a) What is user authentication? Explain any two methods used for authenticating users.
 - b) What is Malware? Explain any two types of malware with suitable examples.
 - c) How is an Intrusion Detection System used in wireless network security?
 - d) Discuss the importance of Web Server Security.
 - e) Explain the steps involved in Risk Analysis in an organization.
- Q2)** a) Differentiate between Bell-Lapadula and BIBA Multilevel Security Models. **20**
b) What is a VPN, and how does it help protect user privacy and data security when accessing the internet?
- Q3)** a) Describe the various techniques used to enhance WLAN security. **20**
b) Discuss SQL injection attacks in detail and outline techniques used to prevent them.
- Q4)** a) Explain different risks involved in Cloud security along with its countermeasures. **20**
b) What is a Cross-Site Request Forgery (CSRF) attack and what are the countermeasures used to prevent it?
- Q5)** a) What are Memory and Address protection in an operating system? Explain their purpose and significance with suitable examples. **20**
b) Describe the SET protocol used in secure online payments.
- Q6)** a) Explain in detail the steps involved in Incident Management in an organization. **20**
b) Describe the major challenges and solutions related to Data Protection in Cloud Computing.
