

(2 ½ Hours)

[Total marks: 60]

- N. B.:** (1) **All questions are compulsory**  
 (2) **Figures to the right indicate full marks.**  
 (3) **Assume additional data if necessary** but state the same clearly.  
 (4) **Symbols have their usual meanings** unless stated otherwise.

- Q.1** Attempt **any two** of the following (12)
- Explain the role of Operating System in protecting objects and implementing computer security. Also list various protected objects. 6
  - Explain how segmentation helps in implementing security. State the advantages of using segmentation. What are its security benefits? 6
  - What are non-malicious programs? How do they sometime pose security threat? List such non-malicious programs. 6
  - List and explain various security requirements of a typical databases system. 6
- Q.2** Attempt **any two** of the following (12)
- Write a note on IP-spoofing based attacks. 6
  - Write note on DMZ. How are they used in implementing security? 6
  - List and explain various types of intrusion detection Systems. 6
  - What is SSL? How they work? Explain. 6
- Q.3** Attempt **any two** of the following (12)
- List various threats are associated with cloud data services. 6
  - Write a note on ESX and ESXi security features. 6
  - Briefly outline the importance of cloud security management and standards. 6
  - Explain why security is important in cloud based applications. Give suitable example. 6
- Q.4** Attempt **any two** of the following (12)
- Write a note on Zigbee security attack. 6
  - List and briefly explain various security threats to mobile applications and devices. 6
  - Compare between GSM and UMTS security features. 6
  - Explain with suitable example the eavesdropping on Bluetooth devices. 6
- Q.5** Attempt **any two** of the following (12)
- What is meant by Data Sensitivity in databases? List various types of data sensitivities. Explain any one. 6
  - Write a note on Security Strategies in firewall. 6
  - Write a note on importance of backup and recovery in in cloud security. 6
  - What is VoIP? State and explain various VoIP issues. 6

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