

TIME: 2½ Hours

Total Marks: 75

- N. B.: (1) **All** questions are **compulsory**.
(2) Make **suitable assumptions** wherever necessary and **state the assumptions** made.
(3) Answers to the **same question** must be **written together**.
(4) Numbers to the **right** indicate **marks**.
(5) Draw **neat labeled diagrams** wherever **necessary**.
(6) Use of **Non-programmable** calculators is **allowed**.

1. Attempt **any three** of the following: 15
- Describe three Ds of security in context of your own home and organization.
 - Comment on “The defender has the impossible job of protection than the job of attacker.”
 - Give the significance of a defense model – Onion model
 - Explain the following: E-mail worms, Trojans.
 - List and brief the different form of Man-in-the-middle attacks (MITM).
 - Discuss three aspects of CIA triad.
2. Attempt **any three** of the following: 15
- What is the concept of zoning in the fundamental storage infrastructure? Explain.
 - Explain the Certificate based mechanism of Authentication.
 - Describe the asymmetric and symmetric key encryption.
 - Discuss the concepts of different Database backups.
 - Explain the following terms: Hijacking, Phishing
 - Summarize the steps of the authentication process of Smart card implementation.
3. Attempt **any three** of the following: 15
- Explain the following terms: NAT, PAT.
 - Write a short note on the Cisco Hierarchical Internetworking model.
 - Describe the concepts of Network hardening.
 - What are the mandatory features of Firewall? Explain.
 - Explain switches and Hubs.
 - Which are the different form of wireless attacks? Explain.

4. Attempt any three of the following:

15

- a. Give the significance of IDS.
- b. List and explain the steps of successful IPS deployment plan.
- c. Describe the evolution of modern VoIP Communication with its components.
- d. Explain Network Protocol Attacks.
- e. What are the types of classic security models? Explain.
- f. Write a short note on Access Control List.

5. Attempt any three of the following:

15

- a. Explain the classification of corporate physical assets.
- b. Which factors have to be considered in physical security while choosing a site location? Explain.
- c. Write a short note on Custom Remote Administration.
- d. Describe the different phases of Secure Development Life cycle (SSDL).
- e. Give the benefits of Cloud Computing Security services.
- f. What are the general types of attacks in web applications? Explain.
