(6 pages)

Time : Three hours   Maximum : 100 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions each in 50 words.

1. State, when an event can be categorized as a disaster.

2. List the electronic backup solutions that companies should follow.

3. What is a passphrase? Give examples.

4. Give an account of any two ways of handling authorization.

5. Name the four cryptosystems used by IPSec.

6. State the responsibilities of the two protocol layers provided by SSL within the TCP framework.

7. Mention the four common testing approaches.

8. What is change control? Where is it placed in a project?

9. How to control user rights to an Access Database?

10. Specify the necessity of data dictionary.

PART B — (5 × 6 = 30 marks)

Answer ALL questions each in 250 words.

11. (a) Classify each of the following occurrences as an incident or disaster. If an occurrence is a disaster, determine whether or not business continuity plans would be called into play?

    (i) A hacker gets into the network and deletes files from a server.

    (ii) A fire breaks out in the storeroom and sets off sprinklers on that floor. Some computers are damaged, but the fire is contained.

    (iii) A tornado hits a local power company, and the company will be without power for three to five days.

Or

(b) When is the Disaster Recovery plan used? List the precepts that are to be followed in a Disaster Recovery plan.

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12. (a) Schematize the handshake process of CHAP? Justify with a case scenario how CHAP is a more secure protocol than PAP.

Or

(b) List the advantages of RADIUS over TACACS.

13. (a) Illustrate with a neat diagram the working of SSL protocol.

Or

(b) Give a schematic representation of Encapsulating Security Payload (ESP) packet header. Explain the working of ESP protocol.

14. (a) Determine when to use the Waterfall model. Illustrate the activities that are involved in the different phases of the model.

Or

(b) What are the steps included in maintaining a reliable software?

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15. (a) How does ODBC serve as an interface and communication mechanism between the application and the database? Describe the configuration of ODBC drivers.

Or

(b) What is the role of audit in database? Give an account on the auditing features for a database.

PART C — (5 × 10 = 50 marks)

Answer ALL questions each in 500 words.

16. (a) Enlist the six continuity strategies that are chosen when planning for business continuity. What is the main determining factor for selecting the Continuity Strategies? Exemplify with advantages and disadvantages for each strategy.

Or

(b) What is contingency planning? How is it different from routine management planning? List the components of contingency planning and write notes on the six steps in the consolidated contingency planning process? (10)

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[P.T.O.]

17. (a) Explain the working of Extensible authentication protocol? Specify the main features and benefits of extensible authentication protocol.

Or

(b) Illustrate with a neat diagram how a Kerberos authentication system can provide secure third-party authentication? (10)

18. (a) Briefly describe the three major architectures supported by IPSec. Give an account of the typical application scenarios for each architecture. (10)

Or

(b) (i) Why is a Virtual Private Network (VPN) becoming more widely used? What specific characteristics must be accomplished by a VPN to offer a secure and reliable capability while relying on public networks? (5)

(ii) Illustrate with a neat diagram the transport mode methods of implementing VPNs. (5)

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19. (a) How to build a secure program coding? What are the security features that are to be kept in mind for an effective program coding? (10)

Or

(b) What is the job of configuration management? Elucidate about the same in detail. (10)

20. (a) Point out the basic core functionalities of the relational database model and give an account on the relational database components. (10)

Or

(b) Give a detailed account on the database security issues. (10)

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