

(6 Pages)

Reg. No. :

Code No. : 20696 E Sub. Code : SECA 5 C

B.C.A. (CBCS) DEGREE EXAMINATION, APRIL 2021.

Fifth Semester

Computer Application

Major Elective — CYBER SECURITY

(For those who joined in July 2017 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Transit time and response time measure the _____ of a network.
(a) Performance (b) Reliability
(c) Security (d) Longevity
2. Network failure is primarily a _____ issue.
(a) Performance (b) Reliability
(c) Security (d) None of the above

3. _____ is a network reliability issue.
- (a) The number of users
 - (b) The type of transmission medium
 - (c) The frequency of failure
 - (d) Unauthorized access
4. A _____ is illicitly introduced code that damages a network device.
- (a) Protocol
 - (b) Virus
 - (c) Catastrophe
 - (d) Medium
5. EDI (Electronic Data Interchange) use to _____
- (a) requires an extranet
 - (b) requires value added network
 - (c) can be done on internet
 - (d) requires a corporate intranet
6. The secure electronic transaction protocol is used for
- (a) Credit card payment
 - (b) Cheque payment
 - (c) Electronic cash payments
 - (d) Payment of small amounts of internet services

7. What is Joe jobs?
- (a) A virus (b) An antivirus
(c) A span attack (d) An antispam
8. Which of the following symmetric algorithms have variable key length?
- (a) AES (b) Triple DES
(c) IDEA (d) Rivest cipher 4
9. What is Mail Exchanger (MX) record?
- (a) Router route
(b) Record in router
(c) Record in DNS specifying the internet email route
(d) Record in DHCP specifying the email code
10. Antivirus signatures are constructed using _____
- (a) Encryption algorithms
(b) Random number generators
(c) Hashes
(d) Cyclic redundancy checks

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Why is the top-down approach to information security superior to the bottom-up approach?

Or

- (b) List out the phases of the security systems development life cycle.

12. (a) What is residual risk? Explain it.

Or

- (b) Why is the identification of risks, by listing assets and their vulnerabilities, so important to the risk management system?

13. (a) Differentiate between a policy, a standard, and a practice.

Or

- (b) Mention the pros and cons of VISA international security model.

14. (a) List the five generations of firewall technology and brief it.

Or

- (b) What is a VPN and what are its technologies?

15. (a) Differentiate symmetric encryption and asymmetric encryption.

Or

- (b) What are the functions of Chief Information Security Officer (CISO)?

PART C — ($5 \times 8 = 40$ marks)

Answer ALL questions, choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Enumerate different types of attacks on computer based systems.

Or

- (b) Explain the various types of threats to information.

17. (a) What are the major stages of risk assessment? Explain.

Or

- (b) Describe the various risk mitigation strategy options.

18. (a) Describe the NIST models.

Or

- (b) Briefly discuss about foundation of cryptology.

19. (a) Explain about failure of supporting utilities.

Or

(b) What is information security project management? Explain.

20. (a) How to position and staff the security function?

Or

(b) What are all the security management models? Explain.
