

Roll No.

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M. Sc. (IT)(Fourth Semester)
EXAMINATION, May-June, 2022
(New Course)
CYBER SECURITY
M. Sc.(IT)(401)

*Time : Three Hours]**[Maximum Marks: 100**[Minimum Pass Marks: 40]***Note: Attempt all sections as directed.**

Section - A
(Objective/Multiple Type Questions)

(Each 1 mark)**Note: Attempt all questions.****Choose the correct answer:**

1. Which one of the following can be considered as the class of computer threats?
- (A) Dos attack
 (B) Phishing
 (C) Soliciting
 (D) Both (A) and (C)

2. Which of the following is considered as the unsolicited commercial email?
- (A) Virus
 (B) Malware
 (C) Spam
 (D) All of the above
3. Which one of the following is a type of antivirus program?
- (A) Quick heal
 (B) McAfee
 (C) Kaspersky
 (D) All of the above
4. Which of the following refers to exploring the appropriate, ethical behaviors related to the online environment and digital media platform
- (A) Cyber law
 (B) Cyber ethics
 (C) Cyber security
 (D) Cyber safety
5. Which of the following refers to the violation of the principle if a computer is no more accessible?
- (A) Access control
 (B) Confidentiality
 (C) Availability
 (D) All of the above

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6. Which one of the following refers to the technique used for verifying the integrity of the message?
- (A) Digital signature
 - (B) Decryption algorithm
 - (C) Protocol
 - (D) Message digest
7. Which one of the following usually used in the process of Wi-fi hacking?
- (A) Air cracking
 - (B) Wire shark
 - (C) Norton
 - (D) All of the above
8. In ethical hacking and cyber security, there are..... types of scanning
- (A) 1
 - (B) 2
 - (C) 3
 - (D) 4
9. Which of the following is not a type of scanning?
- (A) X mas tree scan
 - (B) Cloud scan
 - (C) Null scan
 - (D) SYN stealth

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10. In System hacking which of the following is the most crucial activity?
- (A) Information gathering
 - (B) Covering tracks
 - (C) Cracking passwords
 - (D) None of the above
11. Which one of the following is actually considered as the first computer virus?
- (A) Sasser
 - (B) Blaster
 - (C) Creeper
 - (D) Both (A) and (C)
12. To protect the computer system against the hacker and different kind of viruses one must always keep on in the computer system
- (A) Antivirus
 - (B) Firewall
 - (C) VLC player
 - (D) Script
13. Code Red is a type of
- (A) An antivirus program
 - (B) A photo editing software
 - (C) A computer virus
 - (D) A video editing software

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14. Which of the following can be considered as the elements of cyber security?
- (A) Application security
 - (B) Operational security
 - (C) Network security
 - (D) All of the above
15. Which one of the following is also referred to as malicious software?
- (A) Malicious ware
 - (B) Badware
 - (C) Liegal ware
 - (D) Malware
16. In Wi-fi security, which of the following protocol is most used?
- (A) WPA
 - (B) WPA2
 - (C) WPS
 - (D) Both (A) and (C)
17. In the computer networks, the encryption techniques are primarily used for improving the
- (A) Security
 - (B) Performance
 - (C) Reliability
 - (D) Longevity

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18. Which of the following type of text is transformed with the help of a cipher algorithm?
- (A) Transformed text
 - (B) Complex text
 - (C) Scalar text
 - (D) Plain text
19. DNS translates a Domain name into.....
- (A) Hex
 - (B) Binary
 - (C) IP
 - (D) URL
20. In order to ensure the security of the data / Information, we need to the data.
- (A) Encrypt
 - (B) Decrypt
 - (C) Delete
 - (D) None of the above

Section - B

(Very Short Answer Type Questions)

(Each 2 marks)

Note: -Attempt all questions, Answer using two-three sentences:-

1. What is cyber security?
2. What is CIA?

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3. What is RSA algorithm?
4. Define cryptography.
5. What is a firewall?
6. Define security mechanism.
7. What is digital signature?
8. Define kali linux.
9. Why network need security?
10. What is message Digest?

Section - C

(Short Answer Type Questions)

(Each 3 marks)

Note: Attempt all questions. Answer using <75 words

1. Specify the applications of the public key cryptography system.
2. What is a security services in computer security?
3. What are symmetric and Asymmetric key systems?
4. Define the classes of message authentication function.
5. What you meant by hash function?
6. What are the ECB and CFB modes?
7. What is cyber security policy?
8. What is virus? Explain types of virus
9. What is meant by intrusion and detection system?
10. Explain need and characteristics of firewalls.

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Section - D

(Long Answer Type Questions)

(Each 6 marks)

Note:- Attempt all questions. Answer precisely using 150 words

1. What are the elements of cyber security? and also explain Advantages & Disadvantages of cyber security.

OR

Explain the OSI Security Architecture and the challenges of computer security.

2. What is a Document and Finger printing in message Integrity. Explain Attack on Digital signature.

OR

Explain the following

- (A) Hash function criteria
 - (B) Random oracle code
 - (C) Process services
3. Explain the SHA secure Hash function and Hash Requirement.

OR

Explain OAEP and Attacks on RSA.

4. What is Distributed Intrusion Detection? and explain Malicious software and types of Malicious software.

OR

Explain the following:

- (A) Nature of viruses
- (B) Honeypots
- (C) DDos Attack

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5. What are the steps to set up a firewall? Explain firewall Basing and types of firewall.

OR

Explain wireshark packet Analyzer and its function. Also explain Domain of cyber security policies.