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Paper Code : PEC-CS702E/PEC-IT702F Cyber Security

UPID : 007558

Time Allotted : 3 Hours

Full Marks : 70

The Figures in the margin indicate full marks.

Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer *any ten* of the following :

[1 x 10 = 10]

- (I) What is the existence of weakness in a system or network is known as?
- (II) Which DDoS in mobile systems wait for the owner to trigger the cyber attack?
- (III) Why are the factors like Confidentiality, Integrity, Availability, and Authenticity considered as the fundamentals?
- (IV) What refers to exploring the appropriate, ethical behaviors related to the online environment and digital media platform?
- (V) What type of text is transformed with the help of a cipher algorithm?
- (VI) Cyberspace" was coined by _____.
- (VII) Network failure is primarily a _____ issue.
- (VIII) _____ means the security of data from tampering by unidentified users.
- (IX) Which is a sort of independent type of malicious program that would not require any host program?
- (X) An act to injure, corrupt, or threaten a system or network is characterized _____.
- (XI) What is security misconfiguration?
- (XII) Differentiate Worm and Virus.

Group-B (Short Answer Type Question)

Answer *any three* of the following :

[5 x 3 = 15]

2. Describe Security risk and analysis. [5]
3. Explain Data backup security, Data archival security, and Data disposal considerations. [5]
4. What is the use of policy? [5]
5. Define session hijacking and its various challenges. [5]
6. Explain the Feistel cipher in detail. [5]

Group-C (Long Answer Type Question)

Answer *any three* of the following :

[15 x 3 = 45]

7. (a) Write short notes on: [5]
Firewall.
- (b) Backdoor. [5]
- (c) Trapdoor. [5]
8. (a) Discuss the SQL Injection in detail. [5]
- (b) What is buffer overflow? [5]
- (c) Discuss how to minimize Buffer Overflow. [5]
9. (a) How VoIP hacking is done by attackers? [4]
- (b) What are the measures for it? [5]
- (c) Identify wireless network defense. [6]
10. (a) Name & explain the two protocols to use for E-mail Security. [8]
- (b) Explain Cryptanalysis process. [7]
11. (a) Elaborate "Cyber-crime plays a vital role against person, property, and govt. to protect all valuable information and rights". [6]
- (b) Encrypt a plain text using transposition cipher key. [6]
- (c) What is transposition cipher? [3]