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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: IV - CARRY OVER THEORY EXAMINATION - SEPTEMBER 2022

Subject: Cyber Security

Time: 2 Hours

Max. Marks: 50

General Instructions:

1. The question paper comprises three sections, A, B, and C. You are expected to answer them as directed.
2. Section A - Question No- 1 is 1 marker & Question No- 2 carries 2 mark each.
3. Section B - Question No-3 is based on external choice carrying 5 marks each.
4. Section C - Questions No. 4-8 are within unit choice questions carrying 4 marks each.
5. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

SECTION A

15

1. Attempt all parts:-

- 1-a. CIA Triad refers to - (CO1) 1
- (a) confidentiality
 - (b) Integrity
 - (c) Availability
 - (d) All
- 1-b. Which one of the following is a type of antivirus program? (CO2) 1
- (a) Quick heal
 - (b) Mcafee
 - (c) Kaspersky
 - (d) all
- 1-c. Which of the following is an issue faced by data storage devices? (CO3) 1
- (a) Excessive data mounting
 - (b) Theft,destruction and damage
 - (c) Too small size
 - (d) All of the above

- 1-d. URL stands for – (CO4) 1
- (a) Universal Remote Locator
 - (b) Universal Resource Language
 - (c) Uniform Resource Locator
 - (d) Uniform Resource Language
- 1-e. Taking control of another's website (CO5) 1
- (a) Hijacking
 - (b) spamming
 - (c) spoofing
 - (d) none of above

2. Attempt all parts:-

- 2.a. Differentiate between Data and Information. (CO1) 2
- 2.b. Explain the term phishing? (CO2) 2
- 2.c. Discuss the advantages of data backup security? (CO3) 2
- 2.d. What do you mean by masquerading? Explain with an example. (CO4) 2
- 2.e. Which property is considered as tangible property? (CO5) 2

SECTION B

15

3. Answer any three of the following:-

- 3-a. How are vulnerability, threats and risk related? Is risk assessment important? (CO1) 5
- 3-b. What are the advantages and disadvantages of E-commerce? (CO2) 5
- 3-c. What do you mean by Application Security? Explain the protocols that can be used for Email Security. (CO3) 5
- 3-d. Differentiate between Cyber security and Information security. (CO4) 5
- 3.e. What is cloud computing? Explain the different cloud computing deployment models in detail. (CO5) 5

SECTION C

20

4. Answer any one of the following:-

- 4-a. Discuss passive attacks in network with example. (CO1) 4
- 4-b. Explain the phases that can be involved if a software is to be developed for car manufacturer 4

using waterfall model. (CO1)

5. Answer any one of the following:-

5-a. Explain all the categories of Access control system in detail. (CO2) 4

5-b. What do you mean by Intrusion Detection System? Differentiate between NIDS and HIDS? (CO2) 4

6. Answer any one of the following:-

6-a. Discuss the framework for developing secure applications. (CO3) 4

6-b. Explain the Ring model and Open Closed systems in detail. (CO3) 4

7. Answer any one of the following:-

7-a. What do you mean by Virtual Private Network? Discuss authentication mechanism used in VPN? (CO4) 4

7-b. What do you mean by Symmetric Encryption scheme? Differentiate DES and AES. (CO4) 4

8. Answer any one of the following:-

8-a. What is IoT? Take an example to discuss how has it changed current lifestyle. (CO5) 4

8-b. Discuss examples of security policies in case of a bank. (CO5) 4