

Printed Page:-

Subject Code:- ACSBS0603

Roll. No:

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

**NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA**

**(An Autonomous Institute Affiliated to AKTU, Lucknow)**

**B.Tech**

**SEM: VI - THEORY EXAMINATION (20.....- 20.....)**

**Subject: Information Security**

**Time: 3 Hours**

**Max. Marks: 100**

**General Instructions:**

**IMP:** Verify that you have received the question paper with the correct course, code, branch etc.

1. This Question paper comprises of **three Sections -A, B, & C**. It consists of Multiple Choice Questions (MCQ's) & Subjective type questions.
2. Maximum marks for each question are indicated on right -hand side of each question.
3. Illustrate your answers with neat sketches wherever necessary.
4. Assume suitable data if necessary.
5. Preferably, write the answers in sequential order.
6. No sheet should be left blank. Any written material after a blank sheet will not be evaluated/checked.

**SECTION-A**

20

1. Attempt all parts:-

- 1-a. Computers are \_\_\_\_\_ entities, and programs can be changed in a twinkling, so that past happiness is no predictor of future bliss.(CO1,K1) 1
- (a) Passive
- (b) Active
- (c) None
- (d) Both A & B
- 1-b. \_\_\_\_\_ :assuring that information and programs are changed only in a specified and authorized manner.(CO1,K1) 1
- (a) Dignity
- (b) Integrity
- (c) None
- (d) Both A & B
- 1-c. The framework within which an organization strives to meet its needs for information security is codified as \_\_\_\_\_(CO2,K1) 1
- (a) Security policy
- (b) Terms of policy
- (c) None
- (d) Both A & B
- 1-d. One can implement that policy by taking specific actions guided by management 1

control principles and utilizing specific security standards, procedures, and \_\_\_\_\_.  
(CO2,K1)

- (a) Mechanisms
- (b) Mechanisms time
- (c) None
- (d) Both A & B

1-e. According to the CIA Triad, which of the below-mentioned element is not considered in the triad? (CO3,K1) 1

- (a) Confidentiality
- (b) Integrity
- (c) Authenticity
- (d) Availability

1-f. From the options below, which of them is not a vulnerability to information security? (CO3,K1) 1

- (a) flood
- (b) without deleting data, disposal of storage media
- (c) unchanged default password
- (d) latest patches and updates not done

1-g. \_\_\_\_\_ is the process of retaining or keeping of data at a secure place for long-term storage (CO4,K1) 1

- (a) Data rolls
- (b) Data collections
- (c) Private search engines
- (d) None of These

1-h. A method used by IDS that involves checking for a pattern to identify unauthorized activity.(CO4,K1) 1

- (a) Session Splicing
- (b) Protocol Decoding
- (c) Pattern Matching
- (d) State Table

1-i. the encryption techniques are primarily used for improving the \_\_\_\_\_.(CO5,K1) 1

- (a) Security
- (b) Performance
- (c) Reliability
- (d) Longevity

1-j. In system hacking, which of the following is the most crucial activity.(CO5,K1) 1

- (a) Information gathering
- (b) Covering tracks

- (c) Cracking passwords
- (d) None of the above

2. Attempt all parts:-

- 2.a. List out some of the common cyber-attack with one real example.(CO1,K1) 2
- 2.b. Explain different type of firewall used in a system for Information security. (CO2,K1) 2
- 2.c. Write down the term virtualization with example.(CO3,K2) 2
- 2.d. Define the term intrusion detection. (CO4,k1) 2
- 2.e. Explain the database operating system security. (CO5,K1) 2

### **SECTION-B**

30

3. Answer any five of the following:-

- 3-a. Explain Analysis of Security in Unix and Linux in detail. (CO1,K2) 6
- 3-b. Discuss the following terms understand by risk, vulnerability, and threat in a network (CO1,K2) 6
- 3-c. Explain the Information Security Roles to be played by various professionals in a typical organization (CO2,K2) 6
- 3-d. Discuss Data Encryption Why it is important in network security? (CO2,K1) 6
- 3.e. Discuss how to deal with Confinement problem, Explain in detail. (CO2,K1) 6
- 3.f. Describe viruses in details and what is the different phase of the viruses. (CO4,K2) 6
- 3.g. Explain the term Denial of Service Attack.(CO5,K2) 6

### **SECTION-C**

50

4. Answer any one of the following:-

- 4-a. Criminals are constantly surveying the environment for an opportunity to commit crimes consider an example and explain in detail .(CO1,K1) 10
- 4-b. Explain the Security Life Cycle with respect to information security. (CO1,K1) 10

5. Answer any one of the following:-

- 5-a. Describe the cryptographic algorithms. Explain Caesar Cipher algorithm with an Example.(CO2,K3) 10
- 5-b. Explain in detail the of analysis of Security in Unix and Linux in detail. (CO2,K2) 10

6. Answer any one of the following:-

- 6-a. Explain the concepts of security threats and security assurance.(CO3,K3) 10
- 6-b. Describe Building systems with assurance with regard to information security. (CO3,K3) 10

7. Answer any one of the following:-

- 7-a. Describe basic principle of Information security. Give detailed real life example of each principle.(CO4,K2) 10
- 7-b. Describe one case study involving digital forensics with respect to information security. (CO4,K3) 10

8. Answer any one of the following:-

- 8-a. Explain the different types of database attacks in details and justify with example. 10  
(CO5,K2).
- 8-b. Write down the responsibilities of a database administrator when it comes to 10  
database security. (CO5,K2)

REG:JAN\_JUN-2025