Printed Page:-03 **Subject Code:- ANC0401**

Roll. No:

NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM: IV - THEORY EXAMINATION (2024- 2025)

Subject: Cyber Security

Time: 2 Hours **Max. Marks: 50**

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 15

1. Attempt all parts:-

1-a. Passive attacks are : (CO1,K1) 1

(a) Release of message content

(b) Replay

(c) Denial of service

(d) none

1-b. Recognize the cheapest form of Authentication.(CO2,K2) 1

(a) Password based Authentication

(b) Encryption

(c) Biometric based Authentication

(d) Smart cards

1-c. The risk management process involves. (CO3,K1) 1

(a) Framing,deciding,executing and deleting

(b) Framing,assessing, monitoring and responding

(c) monitoring,assessing,executing and deleting

(d) All of the above

1-d. In the RSA algorithm, we select 2 random large values 'p' and 'q'. Which of the following is the property of 'p' and 'q'? (CO4,K2) 1

(a) p and q should be divisible by $\Phi(n)$

(b) p and q should be co-prime

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(c) p and q should be prime

(d) p/q should give no remainder

1-e. India's first cybercrime police station. (CO5,K1) 1

(a) Bangalore

(b) Delhi

(c) Calcutta

(d) Mumbai

2. Attempt all parts:-

2.a. Mention all the phases involved in information system to be developed for a hospital who is using waterfall model. (CO1,K2) 2

2.b. Name 2 companies who have been target of application layer attacks.(CO2,K2) 2

2.c. State any two security concerns in PDA? (CO3,K2) 2

2.d. Give the application of IP security.(CO4,K3) 2

2.e. What is Cyber Law? (CO5,K3) 2

SECTION-B 15

3. Answer any three of the following:-

3-a. Discuss all steps in design and development of system. (CO1,K2) 5

3-b. Discuss with an example, situations in workplace where you would use IDS. (CO2,K3) 5

3.c. write short note on CCTV and its application and how its differ from IDS?(CO3,K3) 5

3.d. Explain DES in detail with its encryption and decryption process. (CO4,K2) 5

3.e. Explain the need for Information Security Policies. How to protect email messages? (CO5,K3) 5

SECTION-C 20

4. Answer any one of the following:-

4-a. What are different threats to information system.(CO1,K2) 4

4-b. Discuss Prototype model in detail. (CO1,K2) 4

5. Answer any one of the following:-

5-a. Explain NIDS and HIDS. (CO2,K3) 4

5-b. Differentiate between Virus and worms. (CO2,K3) 4

6. Answer any one of the following:-

6-a. Differentiate network intrusion detection system and network node intrusion detection system? With example. (CO3,K3) 4

6-b. Explain the various threats involved in mobile Device security ? (CO3,K3) 4

7. Answer any one of the following:-

7-a. Why security policies should be developed? (CO4,K2) 4

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7-b.	Illustrate the mechanism used in securing mail system against spam. (CO4,K3)	4

8. Answer any <u>one</u> of the following:-

8-a.	What is data security consideration? Explain this reference Data backup security. (CO5,K3)	4
8-b.	Describe the working principle of CCTV.(CO5,K3)	4

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