NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

B.Tech

SEM : III CARRY OVER THEORY EXAMINATION - AUGUST 2023

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.*

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SECTION A   **15**

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1. Attempt all parts:-

1-a.   Recognize which one of the following is not a type of information system.(CO1)   1

(a) Operations support systems

(b) Knowledge-based systems

(c) Employment systems

(d) Management support systems

1-b.   Full form of VIRUS is : (CO2)   1

(a) Both

(b) Vital Information Resource Under Sector

(c) Vital Information Resource Under Seize

(d) None

1-c.   Recognize which is used to conceal the irrelevant details from common users.   1
(CO3)

(a) Layering

(b) Ring model

(c) Abstraction

(d) open closed systems

1-d.   In RSA, Φ(n) = _____ in terms of p and q. (CO4)   1

(a) (p)/(q)

(b) (p)(q)

(c) (p-1)(q-1)

(d) (p+1)(q+1)

1-e.   Staff responsibilities to physical security in their work surroundings are (CO5)   1

(a) To keep organization equipment safe

(b) No unauthorized access to equipment

(c) keep equipments under lock when not in use

(d) all of above

2. Attempt all parts:-

2.a.   Define Information system. (C01)   2

2.b.   Define vulnerability? (CO2)   2

2.c.   Discuss the various phases of SDLC used in software development. (CO3)   2

2.d.   Define Cryptography. (CO4)   2

2.e.   Define email based policies? (CO5)   2

SECTION B   15

3. Answer any three of the following:-

3-a.   Explain in detail about types of Information systems used in an educational institution. (CO1)   5

3-b.   Explain electronic payment system in detail. (CO2)   5

3.c.   Intrusion detection system and closed circuit televisions plays an important role in providing physical security to our information system. Explain in detail. (CO3)   5

3.d.   Differentiate between active attacks and passive attacks. (CO4)   5

3.e.   Explain need of Information System and its types in detail. (CO5)   5

SECTION C   20

4. Answer any one of the following:-

4-a.   Explain types of Threats. (CO1)   4

4-b.   Explain the term vulnerability and threats and relation between them. (CO1)   4

5. Answer any one of the following:-

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

5-b. Discuss Golden rule of backups (3-2-1 Rule of data backup). (CO2) 4

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

6-a. Discuss issues related to the secure development of applications. (CO3) 4

6-b. Define abstraction and ring model and differentiate them. (CO3) 4

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

7-a. Explain importance of Hash functions? (CO4) 4

7-b. Differentiate between DES and AES. (CO4) 4

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

8-a. Explain www policies in detail. (CO5) 4

8-b. Describe is the need of policy development? Discuss 3 reasons with examples. (CO5) 4