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NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute Affiliated to AKTU, Lucknow)

MBA

SEM: IV - THEORY EXAMINATION (2022-2023)

Subject: Cyber 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. Which of the following is an example of a browser ? (CO1) 1

- (a) Microsoft Word
- (b) Notepad
- (c) Internet navigator
- (d) Internet explorer

1-b. _____ is a type of antivirus program. (CO1) 1

- (a) Quick heal
- (b) Mcafee
- (c) Kaspersky
- (d) All of the above

1-c. The intent of a _____ is to overkill the targeted server's bandwidth and other resources of the target website. (CO2) 1

- (a) Phishing attack
- (b) DoS attack

- (c) Social Engineering
- (d) MiTM attack
- 1-d. OSI Model consists of all layers except____. (CO2) 1
- (a) Operational layer
- (b) Transport layer
- (c) Network layer
- (d) Session layer
- 1-e. _____ no. of keys are needed for symmetric key encryption. (CO3) 1
- (a) 1
- (b) 2
- (c) 3
- (d) 4
- 1-f. Secure Information Systems are developed by__ (CO3) 1
- (a) integrating security with the system after it has been developed
- (b) never integrating security with the information system
- (c) keeping security as a separate action until the last step of the system development
- (d) integrating risk analysis and management activities from the start till end
- 1-g. Cyber squatting is associated with___. (CO4) 1
- (a) Domain Name Dispute
- (b) IP addressing dispute
- (c) E-mail dispute
- (d) Password dispute
- 1-h. The message in SHA-512 is padded so that it's length is__ (CO4) 1
- (a) $832 \bmod 1024$
- (b) $768 \bmod 1024$
- (c) $960 \bmod 1024$
- (d) $896 \bmod 1024$
- 1-i. Which of the following is a tool for performing footprinting and staying undetected? (CO5) 1
- (a) Whois search
- (b) Traceroute
- (c) Ping sweep

	(d) Host scanning	
1-j.	The entity for issuing digital certificates. (CO5)	1
	(a) Certificate Authority (CA)	
	(b) Cert Authority	
	(c) Cert Authorization	
	(d) Certificate Authorization	

2. Attempt all parts:-

2.a.	Differentiate between Vulnerability, Threat and Risk. (CO1)	2
2.b.	Differentiate between Public key and Private key. (CO2)	2
2.c.	Define the term Email Bombing. (CO3)	2
2.d.	What are the functional areas of IPSec? (CO4)	2
2.e.	What are two methods of Social Engineering? (CO5)	2

SECTION B

30

3. Answer any five of the following:-

3-a.	What are different threats to Information System? Explain with example. (CO1)	6
3-b.	Discuss all steps in design and development of a system. (CO1)	6
3-c.	Define VPN and discuss its types. List the protocols involved. (CO2)	6
3-d.	Discuss Access Control in File, Program and Data. (CO2)	6
3.e.	Compare and Contrast Security Auditing and Monitoring? (CO3)	6
3.f.	Explain your understanding of how digital signature services provide integrity, authentication and non repudiation. (CO4)	6
3.g.	Discuss in detail any three threats to email security. (CO5)	6

SECTION C

50

4. Answer any one of the following:-

4-a.	Explain the components and resources of an Information System. (CO1)	10
4-b.	Define Information System. Discuss types and uses of an Information System. (CO1)	10

5. Answer any one of the following:-

5-a.	What do you mean by Malicious Software? Explain types of Malware. (CO2)	10
5-b.	What is a firewall? Discuss types and functions of a firewall. (CO2)	10

6. Answer any one of the following:-

6-a.	What are different data security considerations? Explain measures to preserve	10
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confidentiality of the data. (CO3)

- 6-b. Why are risks assessed by an organization? Discuss in detail risk management strategies for all IT assets. (CO3) 10

7. Answer any one of the following:-

- 7-a. What are the issues related to intellectual property rights in cyber space? What is need of IPR in information security? (CO4) 10
- 7-b. Discuss the major changes made in the amendment of IT Act in 2008. (CO4) 10

8. Answer any one of the following:-

- 8-a. What are the different attack vectors through which the attacker can attack information system? Explain. (CO5) 10
- 8-b. What are different steps in ethical hacking? Explain the role and methods of social engineering in hacking. (CO5) 10

2022-23 Jan_June