Subject Code: KNC301

PAPER ID-411309

Roll No:

BTECH
(SEM III) THEORY EXAMINATION 2021-22
COMPUTER SYSTEM SECURITY

Time: 3 Hours ***Total Marks: 50***

Note: Attempt all Sections. If you require any missing data, then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2*5 = 10

Qno	Questions	CO
(a)	Why is Session Hijacking successful?	1
(b)	What is the significance of Confinement Principle?	2
(c)	How access control in UNIX is different from Windows?	3
(d)	How many look-up zones are in DNS?	4
(e)	Define Firewall and Its Uses?	5

SECTION B

2. Attempt any *three* of the following: 5*3 = 15

Qno	Questions	CO
(a)	What is Control hijacking with an example? Explain the term of Buffer overflow in Control hijacking.	1
(b)	Write short notes on System call Interposition.	2
(c)	What is Cross Site Scripting? How to Protect against XSS Attacks.	3
(d)	Explain the term Public key Cryptography in detail.	4
(e)	Explain in brief about RSA Public key cryptography.	5

SECTION C

3. Attempt any *one* part of the following: 5*1 = 5

Qno	Questions	CO
(a)	How Security System Should Evolve to Handle Cyber Security Threats and Vulnerabilities?	1
(b)	What is a Digital Signature? How Digital Signature Works?	4

4. Attempt any *one* part of the following: 5 *1 = 5

(a)	How to detect Rootkits? Explain how to prevent Rootkits	2
(b)	Explain the need of Software fault isolation.	2

5. Attempt any *one* part of the following: 5*1 = 5

(a)	How Cross site request forgery attack works? Also mentioned example of CSRF Attack.	3
(b)	What’s the difference between Browser Isolation and Remote Browser Isolation?	3

6. Attempt any *one* part of the following: 5*1 = 5

(a)	Explain RSA algorithm. Perform Encryption and Decryption using RSA for p=11,q=13,e=7,m=9.	4
(b)	What is Symmetric and Asymmetric Key cryptography? Write their respective advantages and disadvantages?	4

7. Attempt any *one* part of the following: 5*1 = 5

(a)	How do you define Risk, Vulnerability and threat in the context of Network Security?	5
(b)	What is a Network Intrusion Detection System? Explain its types.	5