

**Roll No:** 

#### BTECH

(SEM IV) THEORY EXAMINATION 2021-22 COMPUTER SYSTEM SECURITY

#### Time: 3 Hours

### Total Marks: 100

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

#### SECTION A

#### 1. Attempt *all* questions in brief.

### 2\*10 = 20

Qno	Questions	CO
(a)	What are the 3 aspects of security?	1
(b)	State the need of Computer Security.	1
(c)	What is the difference between Discretionary Access Control and Mandatory Access Control?	3
(d)	Give three benefits of IPsec?	4
(e)	Describe (A) Sniffing (B) Spoofing	1
(f)	Explain some of the weakness of Internet security.	5
(g)	Explain advanced anti-XSS tools	3
(h)	What is the problem of covert channel in VMM security?	2
(i)	Explain the terms: Cryptography, Cryptanalysis and Cryptology.	4
(j)	In the context of access control, what is the difference between a subject and an object?	3

## SECTION B

## 2. Attempt any *three* of the following:

**5** 10\*3 = 30

Qno	Questions	CO
(a)	Explain any four attacks on Computer System Security.	1
(b)	What is intrusion detection system? Explain host based IDS.	2
(c)	Define Cross site scripting (XSS).	3
(d)	Explain SSL Encryption. What are the steps involved in SSL: server authentication?	4
(e)	What is firewall? Explain different types of firewalls. And also explain	5
	the working of packet filtering firewall.	

# SECTION C

## 3. Attempt any *one* part of the following:

10\*1 = 10

Qno	Questions	СО
(a)	What is control hijacking with an example? Explain the term of buffer	1
	overflow in control hijacking.	
(b)	What is Access Control list (ACL) and also defined what are the	1
	technologies used in access control?	

#### 4. Attempt any *one* part of the following:

#### 10 \* 1 = 10

Qno	Questions	CO
(a)	Write short notes on	2

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## **COMPUTER SYSTEM SECURITY**

ſ		I.	Software fault isolation	
		II.	VM based isolation	
	(b)	Define	e Network based IDS. What are its strengths and limitations.	2

#### 5. Attempt any one part of the following:

## 10\*1 = 10

Qno	Questions	
(a)	Define web server threats? And explain 5 major web server threats in detail.	3
(b)	Discuss how vulnerabilities can be exploited in web applications.	3

#### 6. Attempt any one part of the following:

## 10\*1 = 10

Attem	pt any <i>one</i> part of the following:	10*1 = 10	30
(b)	Explain and compare key exchange algorithm	m used in IP sec. 4	
(a)	List and explain the key participants in secur	re electronic transaction 4	
Qno	Questions	СО	

#### Attempt any one part of the following: 7.

Qno	Questions	CO
(a)	What is Domain Name System? What is Static and Dynamic DNS	5
	Record?	
(b)	What is an Intrusion Detection System? How Does an IDS Enhance	5
	Security Management?	

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