

**B TECH**  
**(SEM-III) THEORY EXAMINATION, 2019-20**  
**COMPUTER SYSTEM SECURITY**

Time: 3 Hours

Total Marks: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

**SECTION- A**

1. Attempt all questions in brief.

2 x 10 = 20

Qn.	Questions	Marks
a.	What is computer security problem? What factors contribute to it?	2
b.	What is Encryption and Decryption?	2
c.	What are the principles of secure design?	2
d.	What are the difference between HTTPs, SSL and TLS?	2
e.	Explain System Call Interposition?	2
f.	What are difference between Discretionary Access Control and Mandatory Access Control?	2
g.	What is Web Security?	2
h.	Give three benefits of IPsec?	2
i.	What is SQL injection?	2
j.	What is the problem of covert channel in VMM security?	2

**SECTION- B**

2. Attempt any three of the following:

3 x 10 = 30

a.	What is an Intrusion Detection System? What are the difficulties in Anomaly detection?	10
b.	Why is security hard?	10
c.	What is Access Control list (ACL) and also defined what are the technologies used in access control?	10
d.	What is Cross site request forgery and what are defences against it?	10
e.	Explain SSL Encryption. What are the steps involved in SSL: server authentication?	10

**SECTION- C**

3. Attempt any one part of the following:

1 x 10 = 10

a.	What are Asymmetric Algorithms? Give their advantages, disadvantages.	10
b.	Why do cyber criminals want to own machines?	10

4. Attempt any one part of the following:

a.	What is DES? Why were Double and Triple DES created and what are they?	10
b.	Write Short notes on software fault isolation (SFI): i. Goal & Solution, ii. SFI Approach.	10

5. Attempt any one part of the following:

1 x 10 = 10

a.	Give a short summary of IP Protocol functions	10
b.	What is control hijacking with an example? Explain the term of buffer overflow in control hijacking.	10

6. Attempt any one part of the following:

1 x 10 = 10

a.	How are the different approaches to use Virtual OS on desktop?	10
b.	Write a short note on secret key cryptography. Also list its advantages, disadvantages and examples.	10

7. Attempt any one part of the following:

1 x 10 = 10

a.	What is Domain Name System and explain what is DNS cache poisoning?	10
b.	Write short notes on following: (i) Cross site scripting (XSS), (ii) Why is HTTPS not used for all web traffic?	10