INSTITUTE OF AERONAUTICAL ENGINEERING
(Autonomous)
Dundigal-500043, Hyderabad

B.Tech VI SEMESTER END EXAMINATIONS (REGULAR) - JULY 2023
Regulation: UG-20
NETWORK AND WEB SECURITY

Time: 3 Hours   (COMPUTER SCIENCE AND ENGINEERING)   Max Marks: **70**

Answer ALL questions in Module I and II
Answer ONE out of two questions in Modules III, IV and V
All Questions Carry Equal Marks
All parts of the question must be answered in one place only

MODULE – I

1. (a) With neat diagram explain about how does organizing the set of communication protocols is used in the internet protocol suite of TCP.   [BL: Understand| CO: 1|Marks: 7]

   (b) Describe the way in which connection is setup between servers. Explain about the various components of simple mode transfer protocol.   [BL: Understand| CO: 1|Marks: 7]

MODULE – II

2. (a) Write the need for distributed firewalls. Elaborate the components of distributed firewalls.
                                                        [BL: Understand| CO: 2|Marks: 7]

   (b) What is network security testing? Can you brief in your view what is evolving with network security testing?   [BL: Understand| CO: 2|Marks: 7]

MODULE – III

3. (a) How does malicious software enters a user's computer? Explain the effects and behaviour of spyware.   [BL: Understand| CO: 3|Marks: 7]

   (b) Explain the procedure to relate flooding attacks with DoS attacks in terms of attackers who send a very high volume of traffic to a system. Give reasons for each attack.
                                                        [BL: Apply| CO: 3|Marks: 7]

4. (a) What is Botnet? How malware is distributed among the network? Give a brief note on types of Botnet.   [BL: Understand| CO: 4|Marks: 7]

   (b) Discuss about the types of defense mechanisms against control hijacking attacks. Elucidate how to prevent control hijacking?   [BL: Understand| CO: 4|Marks: 7]

MODULE – IV

5. (a) Compare HTTP with HTTPS with its parameters. Illustrate the concept and types of CSS with an example.   [BL: Understand| CO: 5|Marks: 7]

   (b) Write a CSS code to create a login page for an user asking for user name and password. Embed the CSS code and write the output for the same.   [BL: Apply| CO: 5|Marks: 7]

6. (a) What are the key differences between Java and JavaScript? Explain the audio and video tags.

[BL: Understand| CO: 5|Marks: 7]

(b) Solve the problem of detection and avoidance of HTTP header injection vulnerabilities using the HTTP host header discuss any two attacks on it. [BL: Apply| CO: 5|Marks: 7]

MODULE – V

7. (a) Explain any three flaws faced by the developers during web design that every one must avoid.

[BL: Understand| CO: 6|Marks: 7]

(b) Discuss some features in order to guide the developers on how to defend against click jacking and the defense mechanism against click Jacking attacks. [BL: Understand| CO: 6|Marks: 7]

8. (a) Give a brief note on HTTP parameter pollution (HPP). Explain web parameter tampering with examples. [BL: Understand| CO: 6|Marks: 7]

(b) Describe tracking and identification method of browser fingerprinting works. Why do websites use browser finger printing? [BL: Understand| CO: 6|Marks: 7]

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