Time 3 hrs

18SCS331

Third Semester M.Tech. Degree Examination, Dec.2019/Jan.2020

Application and Web Security

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

a. Explain common web application functions and benefits of web applications.
 b. Write a note on security mechanisms that are used for handling user access.

(10 Marks)

OR

2 a. With a neat diagram, explain an application using boundary validation of multiple stages of processing. (10 Marks)

b. Explain handling attackers.

(10 Marks)

Module-2

a. What is HTTP protocol? Explain HTTP request phase with header fields.
 b. Define status codes. Explain various status codes of HTTP response message.

OR

4 a. Explain web services with an example.

(10 Marks)

b. Explain unicode encoding and HTML encoding.

(10 Marks)

Module-3

5 a. Write a note on web spidering.

(10 Marks)

b. With a neat diagram, explain the mapping of the functional paths with in a web application.
(10 Marks)

OR

6 a. Explain URL file paths and request parameters with examples in identifying entrypoints for user input. (10 Marks)

b. Explain the concept of mapping the attack surface

(10 Marks)

Module-4

- 7 a. Write a note on:
 - i) Bad passwords
 - ii) Brute forceible login
 - iii) Verbose failure messages in the case of design flaws in authentication mechanism.

(10 Marks)

b. Explain in detail forgotten passwords functionality.

(10 Marks)

OR

8 a. Write a note on common vulnerabilities and explain three main types of attacks against access controls. (10 Marks)

b. Explain insecure access control methods.

(10 Marks)

Module-5

9 a. Discuss Bypassing a login procedure.

(10 Marks)

b. Write a note on Finger-pointing the database.

(10 Marks)

OR

10 a. Explain Bypassing filters.

(10 Marks)

b. Write a note on parameterized queries.

(10 Marks)

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F7 JAN 2020

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.

2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.