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Roll No.

TCS-591

B. TECH. (CSE) (FIFTH SEMESTER)

MID SEMESTER

EXAMINATION, Oct., 2023

COMPUTER SYSTEM SECURITY

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) What do you mean by Buffer overflow attack? Explain with the help of a block diagram how the buffer over flow attack takes place. Also state the solutions to solve this attack. (CO1)

OR

- (b) Explain in detail about the following :

(CO1)

- (i) Sandboxing and Isolation
(ii) Fuzzing

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(2)

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2. (a) Write in detail about the tools and techniques used for Vulnerability Detection. (CO1)

OR

- (b) State and explain about any *four* tools and techniques used for writing robust application software. (CO1)

3. (a) Explain in detail about the following : (CO1)

- (i) Dirty COW attack
- (ii) Return-to-libe attack

OR

- (b) What do you mean by Race Condition Vulnerability ? State the solutions available to mitigate his vulnerability. (CO2)

4. (a) Explain in detail about the following : (CO2)

- (i) Shellshock Attack
- (ii) Heartbleed Attack

OR

- (b) State and explain about any *two* software security vulnerabilities along with their protective measures. (CO2)

(3)

5. (a) Write in detail about the tools and techniques available for writing robust application software. (CO1)

OR

- (b) Explain in detail about the following : (CO1)

- (i) User Privilege Management
- (ii) Access Control