

1. A _____ is a sequential segment of the memory location that is allocated for containing some data such as a character string or an array of integers.
 - a) stack
 - b) queue
 - c) external storage
 - *d) buffer

2. In a _____ attack, the extra data that holds some specific instructions in the memory for actions is projected by a cyber-criminal or penetration tester to crack the system.
 - a) Phishing
 - b) MiTM
 - *c) Buffer-overflow
 - d) Clickjacking

3. Let suppose a search box of an application can take at most 200 words, and you've inserted more than that and pressed the search button; the system crashes. Usually this is because of limited _____
 - *a) buffer
 - b) external storage
 - c) processing power
 - d) local storage

4. Buffer-overflow may remain as a bug in apps if _____ are not done fully.
 - a) boundary hacks
 - b) memory checks
 - *c) boundary checks
 - d) buffer checks

5. Applications developed by programming languages like _____ and _____ have this common buffer-overflow error.
 - a) C, Ruby
 - b) Python, Ruby
 - *c) C, C++
 - d) Tcl, C#

6. Memory is allocated in groups made up of _____ bytes.
 - a. 2 bytes
 - b. 4 bytes
 - c. 10 bytes
 - d. 32 bytes

7. How many bytes of memory are allocated for an integer?
 - *a. 4 bytes
 - b. 2 bytes
 - c. 8 bytes
 - d. 24 bits

8. How much memory is allocated for a character?
 - a. 4 bytes
 - *b. 1 byte
 - c. 8 bytes

d. 24 bits

9. How many bytes of memory would be allocated for the following character array: 'hello'?

- a. 5 bytes
- b. 10 bytes
- c. 20 bytes
- *d. 8 bytes

10. How much memory would be allocated for the following integer: '74'?

- a. 2 bytes
- b. 1 byte
- *c. 4 bytes
- d. 12 bits

11. With the lack of boundary check, the program ends abnormally and leads to _____ error.

- a) logical
- *b) segmentation
- c) compile-time
- d) syntax

12. Malicious code can be pushed into the _____ during _____ attack.

- *a) stack, buffer-overflow
- b) queue, buffer-overflow
- c) memory-card, buffer-overflow
- d) external drive, buffer-overflow

13. Variables that gets created dynamically when a function (such as malloc()) is called is created in the form of _____ data-structure.

- a) array
- b) queue
- c) stack
- *d) heap

14. In an application that uses stack, the memory for data is allocated _____

- a) logical
- b) dynamically
- *c) statically
- d) at the end of the program

15. In an application that uses heap, the memory for data is allocated _____

- a) logical
- *b) dynamically
- c) statically
- d) at the beginning of the program