# 20 Lecture - CS304

# **Important Mcqs**

- 1. Which operator is used to access elements of an array or container class?
  - a) () operator
  - b) {} operator
  - c) [] operator
  - d) -> operator

Answer: c) [] operator

## What is the parameter type for an overloaded subscript operator function?

- a) int
- b) char
- c) string
- d) Depends on the type of the elements being accessed

Answer: d) Depends on the type of the elements being accessed

## Which of the following is a valid use of the subscript operator?

- a) accessing the nth character of a string
- b) accessing the nth element of an array
- c) accessing the nth element of a vector
- d) all of the above

Answer: d) all of the above

### What is the return type of the subscript operator function?

- a) void
- b) int
- c) char
- d) Depends on the type of the elements being accessed

Answer: d) Depends on the type of the elements being accessed

#### Which of the following is true regarding the subscript operator overloading?

- a) Only one overload of the subscript operator is allowed per class.
- b) The overload function must be a member function of the class.
- c) The overload function must be a friend function of the class.
- d) The overload function must take two parameters.

Answer: b) The overload function must be a member function of the class.

#### What is the purpose of subscript operator overloading?

- a) To provide a custom element access behavior for user-defined classes.
- b) To access private data members of a class.
- c) To perform arithmetic operations on array elements.
- d) None of the above.

Answer: a) To provide a custom element access behavior for user-defined classes.

#### Which of the following is a disadvantage of using the subscript operator?

a) It can lead to out-of-bounds access.

- b) It is slower than pointer arithmetic.
- c) It cannot be used with containers like maps and sets.
- d) It cannot be overloaded for user-defined classes.

Answer: a) It can lead to out-of-bounds access.

# Which of the following is true regarding the subscript operator overloading for a container class?

- a) The operator function must return a reference to the element being accessed.
- b) The operator function must return a copy of the element being accessed.
- c) The operator function must take a single parameter of type int.
- d) The operator function is not allowed to modify the container.

Answer: a) The operator function must return a reference to the element being accessed.

## Which of the following is a valid example of subscript operator overloading?

- a) int operator[](int i);
- b) void operator[](int i);
- c) int& operator[](int i);
- d) int\* operator[](int i);

Answer: c) int& operator[](int i);

# What happens if the subscript operator function returns a copy of the element being accessed?

- a) The copy is returned by value and can be modified independently of the original element.
- b) The copy is returned by reference and any modifications made to it will affect the original element.
- c) The program will not compile.
- d) None of the above.

Answer: a) The copy is returned by value and can be modified independently of the original element.