

# 39 Lecture - CS201

## Important Mcqs

1. **What is the operator used to declare a pointer in C++?**

- A) &
- B) \*
- C) \$
- D) %

**Answer: B**

2. **What is the difference between a null pointer and a void pointer in C++?**

- A) A null pointer points to nothing, while a void pointer points to any data type.
- B) A null pointer points to a memory address, while a void pointer points to a function.
- C) A null pointer is used for deallocation, while a void pointer is used for allocation.
- D) A null pointer is used for function pointers, while a void pointer is used for object pointers.

**Answer: A**

3. **What is the correct syntax for dynamically allocating memory for a pointer in C++?**

- A) `int* p = malloc(sizeof(int));`
- B) `int* p = new int;`
- C) `int p = new int;`
- D) `int* p = malloc(int);`

**Answer: B**

4. **What is a dangling pointer in C++?**

- A) A pointer that points to a valid memory address.
- B) A pointer that points to a deallocated memory address.
- C) A pointer that points to a null memory address.
- D) A pointer that points to a function.

**Answer: B**

5. **What is the purpose of the const keyword when working with pointers in C++?**

- A) To declare a constant pointer variable.
- B) To declare a pointer to a constant variable.
- C) To declare a constant memory address.
- D) To declare a constant value pointed to by a pointer.

**Answer: B**

6. **What is the difference between a reference and a pointer in C++?**

- A) A reference is an alias for a variable, while a pointer is a separate variable that stores a memory address.

- B) A reference is a separate variable that stores a memory address, while a pointer is an alias for a variable.
- C) A reference and a pointer are the same thing in C++.
- D) A reference is used for dynamic memory allocation, while a pointer is used for static memory allocation.

**Answer: A**

7. **What is the operator used to access the value pointed to by a pointer in C++?**

- A) .
- B) ->
- C) &
- D) \*

**Answer: D**

8. **What is the correct syntax for deleting a dynamically allocated pointer in C++?**

- A) delete p;
- B) delete \*p;
- C) delete &p;
- D) free(p);

**Answer: A**

9. **What is a memory leak in C++?**

- A) A pointer that points to a deallocated memory address.
- B) A pointer that points to a null memory address.
- C) A pointer that points to a valid memory address.
- D) A failure to deallocate dynamically allocated memory, causing the program to use up all available memory.

**Answer: D**

10. **What is a smart pointer in C++?**

- A) A pointer that automatically deallocates memory when it goes out of scope.
- B) A pointer that automatically allocates memory when it is assigned a value.
- C) A pointer that automatically sets the value pointed to by the pointer to null.
- D) A pointer that automatically dereferences itself when used in code.

**Answer: A**