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