30 Lecture - CS201

Important Mcqs

1. **What is a reference data type in C++?**
   a) It is a variable that stores the memory address of another variable
   b) It is a variable that refers to another variable by name
   c) It is a variable that can be assigned a null value
   d) It is a variable that cannot be passed to a function

Answer: b

2. **What is the difference between a pointer and a reference in C++?**
   a) Pointers can be reassigned to point to different variables, while references cannot.
   b) References can be null, while pointers cannot.
   c) Pointers are used to pass variables by reference, while references are used to pass variables by value.
   d) There is no difference between a pointer and a reference in C++.

Answer: a

3. **Can a reference be declared without being initialized?**
   a) Yes, a reference can be declared without being initialized.
   b) No, a reference must be initialized when it is declared.
   c) It depends on the data type of the reference.
   d) It depends on the scope of the reference.

Answer: b

4. **What is the benefit of passing parameters by reference in a function?**
   a) It saves memory by not creating a copy of the variable.
   b) It allows the function to modify the original variable.
   c) It makes the code more readable.
   d) It makes the code faster.

Answer: b

5. **What happens if a reference is assigned to a new variable?**
   a) The original variable is deleted.
   b) The new variable becomes an alias for the original variable.
   c) A new copy of the original variable is created.
   d) The program crashes.

Answer: b

6. **Can a reference be used as a return type for a function?**
   a) Yes, a reference can be used as a return type for a function.

b) No, a reference cannot be used as a return type for a function.
c) It depends on the data type of the reference.
d) It depends on the scope of the reference.

Answer: a

7. **What is the syntax for declaring a reference variable in C++?**
   a) int& x;
   b) int* x;
   c) int x&;
   d) int& x = y;

Answer: d

8. **Can a reference refer to a const variable?**
   a) Yes, a reference can refer to a const variable.
   b) No, a reference cannot refer to a const variable.
   c) It depends on the data type of the reference.
   d) It depends on the scope of the reference.

Answer: a

9. **What is the difference between a const reference and a non-const reference?**
   a) A const reference cannot be modified, while a non-const reference can.
   b) A non-const reference cannot be modified, while a const reference can.
   c) There is no difference between a const reference and a non-const reference.
   d) A const reference cannot refer to a non-const variable.

Answer: a

10. **Can a reference refer to a temporary object?**
    a) Yes, a reference can refer to a temporary object.
    b) No, a reference cannot refer to a temporary object.
    c) It depends on the data type of the reference.
    d) It depends on the scope of the reference.

Answer: a