1: Which of the following is a valid C++ identifier?

(A) `my_variable`

(B) `123variable`

(C) `my-variable`

(D) `variable&`

2: What is the output of the following C++ code?

```
int main() {
   int x = 10;
   int y = 20;
   int z = x + y;

   cout << z <<endl;

   return 0;
}
```
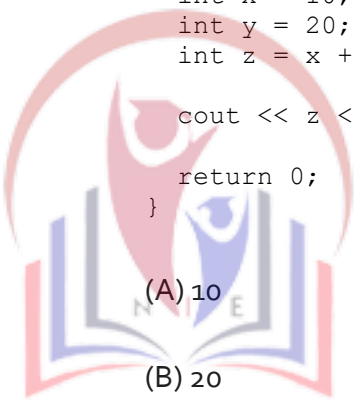
(A) 10

(B) 20

(C) 30

(D) None of the above

3: Which of the following is a valid C++ array declaration?

(A) `int my_array[10] = {1, 2, 3, 4, 5};`

(B) `int my_array = {1, 2, 3, 4, 5};`

(C) `int my_array[];`
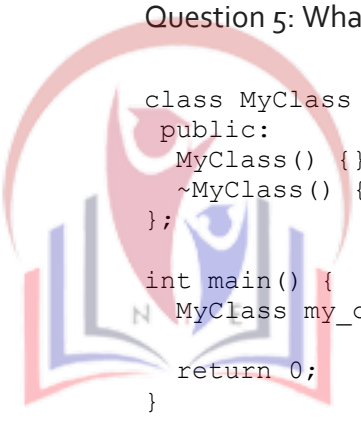
(D) `int my_array(10);`

Question 4: What is the difference between a `class` and a `struct` in C++?

(A) A `class` is a blueprint for creating objects, while a `struct` is a way to group related data together.

(B) A `class` can have member functions, while a `struct` cannot.

(C) A `class` can be used to implement inheritance, while a `struct` cannot.

Question 5: What is the output of the following C++ code?

```cpp
class MyClass {
 public:
   MyClass() {}
   ~MyClass() {}
};

int main() {
   MyClass my_object;

   return 0;
}
```

(A) The constructor and destructor of `MyClass` will be called.

B) Only the constructor of `MyClass` will be called.

(C) Only the destructor of `MyClass` will be called.

Question 6: What is a pointer in C++?

(A) A variable that stores the address of another variable.

(B) A variable that stores the value of another variable.

(C) A variable that stores a reference to another variable.

(D) All of the above.

Question 7: What is the difference between a function and a method in C++?

(A) A function is a global function, while a method is a member function of a class.

(B) A function can be called anywhere in the program, while a method can only be called from within a class.

(C) A function can be called directly, while a method must be called through an object of the class.

(D) All of the above.

Question 8: What is inheritance in C++?

(A) A mechanism for creating new classes based on existing classes.

(B) A mechanism for reusing code from existing classes.

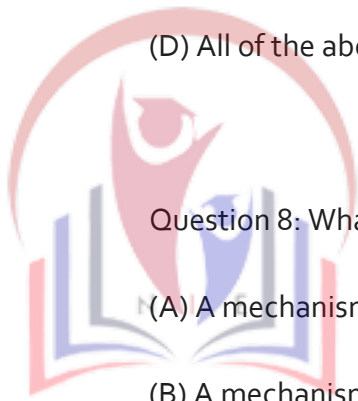(C) A mechanism for extending the functionality of existing classes.

(D) All of the above.

Question 9: What is polymorphism in C++?

(A) The ability of an object to take on different forms.

(B) The ability of a function to be called with different types of arguments.

(C) The ability of a variable to store different types of data.

(D) All of the above.

1. In C++, what is the operator used for assigning a value to a variable?
   a) ==
   b) =
   c) =>
   d) :

2. Which data type is used to represent characters in C++?
   a) char
   b) int
   c) float
   d) string

3. What is the extension of a C++ source code file?
   a) .cpp
   b) .c
   c) .txt
   d) .exe

4. In C++, which of the following is not a fundamental data type?
   a) int
   b) double
   c) string
   d) char

5. Which C++ keyword is used to define a class?
   a) class
   b) define
   c) struct
   d) private

6. What is the purpose of the "cin" object in C++?
   a) Output data to the console
   b) Read data from the console
   c) Perform mathematical calculations
   d) Define a constant value

7. Which C++ operator is used to compare two values for equality?
   a) ==
   b) !=
   c) <=
   d) >

8. What is the correct syntax to declare a pointer in C++?
   a) int* ptr;
   b) ptr int;

c) int ptr;
d) pointer int;

9. Which C++ loop is used to execute a block of code repeatedly as long as a condition is true?

a) while
b) for
c) do-while
d) switch

10. What is the purpose of the "break" statement in a C++ switch statement?

a) Terminate the program
b) Exit the current loop
c) Skip to the next case
d) Stop execution of the switch statement

11. What is the default access level for class members in C++?

a) Public
b) Private
c) Protected
d) Internal

12. In C++, what does the "new" operator do?

a) Deletes memory
b) Allocates memory
c) Calls a constructor
d) Deletes an object

13. What does "polymorphism" mean in the context of C++?

a) The ability of a class to inherit from multiple base classes
b) The ability of a function to perform different actions based on its input
c) The use of multiple inheritance in C++
d) The ability of a class to hide its implementation details

14. What does "dynamic memory allocation" refer to in C++?

a) Allocating memory at compile time
b) Allocating memory at runtime using "new" or "malloc"
c) Allocating memory on the stack
d) Allocating memory for global variables

15. What is the purpose of the "const" keyword in C++?

a) Declare a variable as unchangeable
b) Declare a constant value
c) Declare a global variable
d) Declare a variable as mutable

16. Which C++ header file should be included to use the "cin" and "cout" objects?

a) <stdio.h>

b) <iostream.h>
c) <iostream>
d) <conio.h>

17. What is the scope resolution operator in C++?

a) ::
b) .
c) ->
d) :

18. What is the function of the "try" block in C++ exception handling?

a) Handle the exception
b) Throw an exception
c) Define a custom exception
d) Catch an exception

19. Which C++ keyword is used to exit a loop prematurely?

a) end
b) exit
c) break
d) return