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## ***Lab. (8&9)***

### ***Functions***

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**Answer the following questions**

- 1) Where does the execution of the program starts?
  - a) user-defined function
  - b) main function
  - c) void function
  - d) else function
  
- 2) What are mandatory parts in the function declaration?
  - a) return type, function name
  - b) return type, function name, parameters
  - c) parameters, function name
  - d) parameters, variables
  
- 3) which of the following is used to terminate the function declaration?
  - a) :
  - b) )
  - c) ;
  - d) ]
  
- 4) What will be the output of the following C++ code?

```
#include <iostream>
using namespace std;
void mani()
void mani()
{
    cout<<"hai";
}
```

```
int main()
{
    mani();
    return 0;
}
```

- a) Hai
- b) Haihai
- c) compile time error
- d) runtime error

5) What will be the output of the following C++ code?

```
#include <iostream>
using namespace std;
void fun(int x, int y)
{
    x = 20;
    y = 10;
}
int main()
{
    int x = 10;
    fun(x, x);
    cout << x;
    return 0;
}
```

- a) 10
- b) 20
- c) compile time error
- d) 30

6) What is the scope of the variable declared in the user defined function?

- a) whole program
- b) only inside the {} block
- c) the main function
- d) header section

7) How many minimum numbers of functions should be present in a C++ program for its execution?

- a) 0
- b) 1
- c) 2
- d) 3

8) Which of the following is the default return value of functions in C++?

- a) Int
- b) Char
- c) Float
- d) Void

9) What will be the output of the following C++ code?

```
#include<iostream>
using namespace std;

int fun(int x = 0, int y = 0, int z)
{ return (x + y + z); }

int main()
{
    cout << fun(10);
    return 0;
}
```

- a) 10

- b) 0
  - c) Error
  - d) Segmentation fault
- 10) From which function the execution of a C++ program starts?
- a) start() function
  - b) main() function
  - c) new() function
  - d) end() function
- 11) How many ways of passing a parameter are there in c++?
- a) 1
  - b) 2
  - c) 3
  - d) 4
- 12) What will be the output of the following C++ code?

```
#include <iostream>
using namespace std;
int add(int a, int b);
int main()
{
    int i = 5, j = 6;
    cout << add(i, j) << endl;
    return 0;
}
int add(int a, int b )
{
    int sum = a + b;
    a = 7;
    return a + b;
}
```

- a) 11

- b) 12
  - c) 13
  - d) compile time error
- 13) What will happen when we use void in argument passing?
- a) It will not return value to its caller
  - b) It will return value to its caller
  - c) Maybe or may not be return any value to its caller
  - d) It will return value with help of object
- 14) Where does the return statement returns the execution of the program?
- a) main function
  - b) caller function
  - c) same function
  - d) block function
- 15) Write a C++ program to find the square of any number using function.
- 16) Write a program in C++ to swap two numbers using function.
- 17) Write a program to check a given number is even or odd using function.
- 18) Write a program using function which accepts two integers and character (operator) as an argument and return its results based on the operator (+, -, /, \*). Call this function from main () and print the results in main ().
- 19) Write a C++ program that reads a set of integers and then prints the sum of the even numbers using function.

- 20) Write a C++ program to Find Smallest Number using Function
- 21) Write a C++ program to Compute quotient and remainder of a number using function
- 22) Write a C++ program to Check Vowel or a Consonant character using function
- 23) Write a C++ program to Find All Roots of a Quadratic Equation using function

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$