C++ Revision

Quick Recap

- File
- Opening and Closing of files
- Modes of file
- File Stream function
- Reading and Writing of files

Let’s Get Started-

MCQ 1

Which of the following is used for comments in C++?

a) // comment

b) /* comment */

c) both // comment or /* comment */

d) // comment */

MCQ 1

Which of the following is used for comments in C++?

a) // comment

b) /* comment */

c) both // comment or /* comment */

d) // comment */

Explanation: Both the ways are used for commenting in C++ programming. // is used for single line comments and /* … */ is used for multiple line comments.

MCQ 2

What are the actual parameters in C++?

a) Parameters with which functions are called

b) Parameters which are used in the definition of a function

c) Variables other than passed parameters in a function

d) Variables that are never used in the function

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What are the actual parameters in C++?

a) Parameters with which functions are called

b) Parameters which are used in the definition of a function

c) Variables other than passed parameters in a function

d) Variables that are never used in the function

Explanation: Actual parameters are those using which a function call is made i.e. which are actually passed in a function when that function is called.

MCQ 3

Which function is used to read a single character from the console in C++?

a) cin.get(ch)

b) getline(ch)

c) read(ch)

d) scanf(ch)

MCQ 3

Which function is used to read a single character from the console in C++?

a) cin.get(ch)

b) getline(ch)

c) read(ch)

d) scanf(ch)

Explanation: C++ provides cin.get() function to read a single character from console whereas others are used to read either a single or multiple characters.

MCQ 4

How structures and classes in C++ differ?

a) In Structures, members are public by default whereas, in Classes, they are private by default

b) In Structures, members are private by default whereas, in Classes, they are public by default

c) Structures by default hide every member whereas classes do not

d) Structures cannot have private members whereas classes can have

MCQ 4

How structures and classes in C++ differ?

a) In Structures, members are public by default whereas, in Classes, they are private by default

b) In Structures, members are private by default whereas, in Classes, they are public by default

c) Structures by default hide every member whereas classes do not

d) Structures cannot have private members whereas classes can have

Explanation: Structure members are public by default whereas, class members are private by default. Both of them can have private and public members.

MCQ 4

How structures and classes in C++ differ?

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Explanation: Structure members are public by default whereas, class members are private by default. Both of them can have private and public members.

MCQ 5

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

```
class Test
{
    static int x;
  public:
    Test() { x++; }
    static int getX() {return x;}
};
int Test::x = 0;
int main()
{
    cout << Test::getX() << " ";
    Test t[5];
    cout << Test::getX();
}
```

MCQ 5

a) 0 0

b) 5 0

c) 0 5

d) 5 5

MCQ 5

a) 0 0

b) 5 0

c) 0 5

d) 5 5

Explanation: Static function can be called without using objects therefore the first call is fine. Next when we are creating 5 objects of the class then value of x is updated each time and as static variables are global to class therefore each updation of x is reflected back to each object hence value of x is 5.

MCQ 6

Which of the following is correct about static variables?

a) Static functions do not support polymorphism

b) Static data members cannot be accessed by non-static member functions

c) Static data members functions can access only static data members

d) Static data members functions can access both static and non-static data members

MCQ 6

Which of the following is correct about static variables?

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c) Static data members functions can access only static data members

d) Static data members functions can access both static and non-static data members

Explanation: Static member functions can access static data members only. Static member functions can be overloaded. Static data members can be accessed by non-static member functions.

MCQ 7

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

```
class Test
{
   public:
     void fun();
};
static void Test::fun()
{
    std::cout<<"fun() is static";
}
int main()
{
    Test::fun();
    return 0;
}
```

MCQ 7

a) fun() is static

b) Compile-time Error

c) Run-time Error

d) Nothing is printed

MCQ 7

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b) Compile-time Error

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MCQ 8

```
class Point
{
    int x, y;
  public:
   Point(int i = 0, int j =0)
   { x = i; y = j;  }
   int getX() const { return x; }
   int getY() {return y;}
};
int main()
{
    const Point t;
    cout << t.getX() << " ";
    cout << t.gety();
    return 0;
}
```

MCQ 8

a) 0 0

b) Garbage values

c) Compile error

d) Segmentation fault

MCQ 8

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b) Garbage values

c) Compile error

d) Segmentation fault

Explanation: C++ does not allows a constant object to access any non constant member functions and as getY() is a non constant function and t is a constant object therefore the program gives the error.

MCQ 9

What happens if the following program is executed in C and C++?

```
#include<stdio.h>
int main()
{
  foo();
}
int foo()
{
  printf("Hello");
  return 0;
}
```

MCQ 9

a) Error in both C and C++

b) Warning in both C and C++

c) Error in C++ but Warning in C

d) Error in C but Warning in C++

MCQ 9

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b) Warning in both C and C++

c) Error in C++ but Warning in C

d) Error in C but Warning in C++

MCQ 9

Which of the following type is provided by C++ but not C?

a) int

b) bool

c) float

d) double

MCQ 9

Which of the following type is provided by C++ but not C?

a) int

b) bool

c) float

d) double

MCQ 10

Which of the following feature is not provided by C?

a) Pointers

b) Structures

c) References

d) Functions

MCQ 10

Which of the following feature is not provided by C?

a) Pointers

b) Structures

c) References

d) Functions

MCQ 11

What is the correct definition of an array?

a) An array is a series of elements of the same type in contiguous memory locations

b) An array is a series of element

c) An array is a series of elements of the same type placed in non-contiguous memory locations

d) An array is an element of the different type

MCQ 11

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d) An array is an element of the different type

MCQ 12

Which of the following gives the memory address of the first element in array?

a) array[0];

b) array[1];

c) array(2);

d) array;

MCQ 12

Which of the following gives the memory address of the first element in array?

a) array[0];

b) array[1];

c) array(2);

d) array;

MCQ 13

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

```
#include <stdio.h>
  #include<iostream>
  using namespace std;
  int main ()
  {
     int array[] = {0, 2, 4, 6, 7, 5, 3};
     int n, result = 0;
     for (n = 0; n < 8; n++)
     {
        result += array[n];
     }
     cout << result;
     return 0;
  }
```

MCQ 13

a) 25

b) 26

c) 27

d) 21

MCQ 13

a) 25

b) 26

c) 27

d) 21

Explanation: We are adding all the elements in the array and printing it. Total elements in the array is 7, but our for loop will go beyond 7 and add a garbage value.

MCQ 14

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

```
#include<iostream>
 using namespace std;
 int main()
 {
    int a = 5, b = 10, c = 15;
    int arr[3] = {&a, &b, &c};
    cout << *arr[*arr[1] - 8];
    return 0;
 }
```

a) 15
b) 18
c) garbage value
d) compile time error

MCQ 14

a) 15

b) 18

c) garbage value

d) compile time error

Explanation: The conversion is invalid in this array. So it will arise error. The following compilation error will be raised:
cannot convert from ‘int *’ to ‘int’
This is because &a, &b and &c represent int* whereas the array defined is of int type.

MCQ 15

```
#include <iostream>
 using namespace std;
 int main()
 {
    int array[] = {10, 20, 30};
    cout << -2[array];
    return 0;
 }
```

a) -15

b) -30

c) compile time error

d) garbage value

MCQ 15

a) -15

b) -30

c) compile time error

d) garbage value

Explanation: It’s just printing the negative value of the concern element.

MCQ 16

What is the header file for the string class?

a) #include<ios>

b) #include<str>

c) #include<string>

d) #include<stio>

MCQ 16

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MCQ 17

Which is used to return the number of characters in the string?

a) length

b) size

c) both size & length

d) name

MCQ 17

Which is used to return the number of characters in the string?

a) length

b) size

c) both size & length

d) name

MCQ 18

```
#include <iostream>
#include <cstring>
  using namespace std;
 int main ()
 {
    char str1[10] = "Hello";
    char str2[10] = "World";
    char str3[10];
    int  len ;
    strcpy( str3, str1);
    strcat( str1, str2);
    len = strlen(str1);
    cout << len << endl;
    return 0;
 }
```

MCQ 18

a) 5

b) 55

c) 11

d) 10

MCQ 18

a) 5

b) 55

c) 11

d) 10

MCQ 19

Predict the output of the following.

```
#include <iostream>
using namespace std;
int main()
{
    int a[2][4] = {3, 6, 9, 12, 15, 18, 21, 24};
    cout << *(a[1] + 2) << *(*(a + 1) + 2) << 2[1[a]];
    return 0;
}
```

a) 15 18 21
b) 21 21 21
c) 24 24 24
d) Compile time error

MCQ 19

a) 15 18 21

b) 21 21 21

c) 24 24 24

d) Compile time error

Explanation: a[1][2] means 1 * (4)+2 = 6th element of an array starting from zero.

MCQ 20

Predict the output

```
#include <iostream>
  using namespace std;
  int main()
  {
      int i;
      const char *arr[] = {"C", "C++", "Java", "VBA"};
      const char *(*ptr)[4] = &arr;
      cout << ++(*ptr)[2];
      return 0;
  }
```

a) ava

b) java

c) c++

d) compile time error

MCQ 20

a) ava

b) java

c) c++

d) compile time error

MCQ 21

Which of the following is illegal?

a) int *ip;

b) string s, *sp = 0;

c) int i; double* dp = &i;

d) int *pi = 0;

MCQ 21

Which of the following is illegal?

a) int *ip;

b) string s, *sp = 0;

c) int i; double* dp = &i;

d) int *pi = 0;

Answer: **c**

Explanation: dp is initialized int value of i.

MCQ 22

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

```
int main()
{
    char *ptr;
    char Str[] = "abcdefg";
    ptr = Str;
    ptr += 5;
    cout << ptr;
    return 0;
}
```

a) fg
b) cdef
c) defg
d) abcd

MCQ 23

In which of the following cases inline functions may not word?

i) If the function has static variables.

ii) If the function has global and register variables.

iii) If the function contains loops

iv) If the function is recursive

a) i, iv

b) iii, iv

c) ii, iii, iv

d) i, iii, iv

MCQ 23

a) i, iv

b) iii, iv

c) ii, iii, iv

d) i, iii, iv

Explanation: A function is not inline if it has static variables, loops or the function is having any recursive calls.

MCQ 24

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

```
void square (int *x, int *y)
{
        *x = (*x) * --(*y);
}
int main ( )
{
        int number = 30;
        square(&number, &number);
        cout << number;
        return 0;
}
```

MCQ 24

a) 870

b) 30

c) Error

d) Segmentation fault

MCQ 24

a) 870

b) 30

c) Error

d) Segmentation fault

Explanation: As we are passing value by reference therefore the change in the value is reflected back to the passed variable number hence value of number is changed to 870.

MCQ 25

Which of the following is important in a function?

a) Return type

b) Function name

c) Both return type and function name

d) The return type, function name and parameter list

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d) The return type, function name and parameter list


Any Questions ??

Thank You!

See you guys in next class.