

Student Result

Student Name: Siya Sarfraj Shaikh

Exam: C++

Score: 40.0/45.0

Percentage: 88.89%

Question-wise Summary

Sr.no	Question	Selected Answer	Correct Answer
1	What will be the output of the following C++ program? #include <iostream> using namespace std; int main() { #include <cmath> cout << sqrt(25); return 0; }	5	Compilation error

2	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { cout << "Hello World"; return 0; }</pre>	Hello World	Hello World
3	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { float x = 5.75; int y = 3; cout << x / y; return 0; }</pre>	1.91	1.91

4	What will be the output of the following program? <pre>#include <iostream> using namespace std; int main() { double d = 5.7; int i = static_cast<int>(d); cout << i; return 0; }</pre>	Compilation Error	5
5	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { const int x = 10; x = 20; cout << x; return 0; }</pre>	Compilation Error	Compilation Error

6	What will be the output of the following C++ code? <pre>#include <iostream> using namespace std; int main() { int x = 5, y = 3; cout << (x & y); return 0; }</pre>	1	1
7	What will be the output of the following program? <pre>#include <iostream> using namespace std; int main() { int x = 5; cout << ++x << " " << x++ << " " << x; return 0; }</pre>	6 6 7	6 6 7

8

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

```
#include <iostream>
using namespace std;
int main() {
    int x = 10, y = 20;
    if (x < y) {
        cout << "x is less than y";
    } else if (x > y) {
        cout << "x is greater than y";
    } else {
        cout << "x is equal to y";
    }
    return 0;
}
```

x is less than y

x is less than y

9	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { for (int i = 0; i < 5; i++) { cout << i << " "; } return 0; }</pre>	0 1 2 3 4	0 1 2 3 4
10	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { for (int i = 0; i < 5; i++) { if (i == 3) { continue; } cout << i << " "; } return 0; }</pre>	0 1 2 4	0 1 2 4

11	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; void displayMessage() { cout << "Hello from function!"; } int main() { displayMessage(); return 0; }</pre>	Hello from function!	Hello from function!
----	---	-----------------------------	-----------------------------

12

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

```
#include <iostream>
using namespace std;
void display(int a) { cout << "Integer: " << a; }
void display(double a) { cout << "Double: " << a; }
int main()
{
    display(5);
    display(3.14);
    return 0;
}
```

Integer:
5
Double:
3.14

Integer:
5
Double:
3.14

13

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

```
#include <iostream>
using namespace std;
void greet(string name, string message = "Hello")
{ cout << message << ", " << name; }
int main()
{
    greet("Alice");
    return 0;
}
```

**Hello,
Alice**

**Hello,
Alice**

14	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; void countdown(int n) { if (n > 0) { cout << n << " "; countdown(n - 1); } } int main() { countdown(3); return 0; }</pre>	3 2 1	3 2 1
15	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; inline int square(int x) { return x * x; } int main() { cout << square(5); return 0; }</pre>	25	25

16

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

```
#include <iostream>
using namespace std;
void displayMessage()
{ cout << "Function Pointer Example!";
}
int main() {
void (*funcPtr)()
= displayMessage;
funcPtr();
return 0;
}
```

**Function
Pointer
Example!**

**Function
Pointer
Example!**

17	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { auto add = [](int a, int b) { return a + b; }; cout << add(3, 4); return 0; }</pre>	7	7
18	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int arr[3] = {10, 20, 30}; cout << arr[1]; return 0; }</pre>	20	20

19

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

```
#include <iostream>
using namespace std;
int main() {
    int arr[2][3] = {{1, 2, 3}, {4, 5, 6}};
    cout << arr[1][2];
    return 0;
}
```

6

6

20

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

```
#include <iostream>
using namespace std;
void printArray(int arr[], int size) {
    for (int i = 0; i < size; i++) {
        cout << arr[i] << " ";
    }
}
int main() {
    int arr[3] = {1, 2, 3};
    printArray(arr, 3);
    return 0;
}
```

1 2 3

1 2 3

21	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { char str[] = "Hello"; cout << str; return 0; }</pre>	Hello	Hello
22	What will be the output of the following C++ program? <pre>#include <iostream> #include <string> using namespace std; int main() { string str = "C++ Programming"; cout << str.substr(4, 5); return 0; }</pre>	Prog	Prog

23

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

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

Compilation error

HelloWorld

24

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

```
#include <iostream>
#include <sstream>
using namespace std;
int main() {
    stringstream ss;
    ss << "C++" << " " << 2024;
    string result = ss.str();
    cout << result;
    return 0;
}
```

C++
2024

C++
2024

25	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int num = 10; int* ptr = &num; cout << *ptr; return 0; }</pre>	Compilation error	10
26	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int a = 20; int* p = &a; *p = 30; cout << a; return 0; }</pre>	30	30

27	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int arr[3] = {1, 2, 3}; int* ptr = arr; cout << *(ptr + 1); return 0; }</pre>	2	2
28	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int* ptr = new int(5); cout << *ptr; delete ptr; return 0; }</pre>	5	5

29	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int* ptr = new int(10); // Memory leak, no delete return 0; }</pre>	No output, but there is a memory leak	No output, but there is a memory leak
30	What will be the output of the following C++ program? <pre>#include <iostream> #include <memory> using namespace std; int main() { unique_ptr<int> ptr(new int(100)); cout << *ptr; return 0; }</pre>	Compilation Error	100

31

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

```
#include <iostream>
using namespace std;
void displayMessage()
{ cout << "Hello from function pointer!";
}
int main() {
    void (*funcPtr)()
    = displayMessage;
    funcPtr();
    return 0;
}
```

**Hello
from
function
pointer!**

**Hello
from
function
pointer!**

32

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

```
#include <iostream>
using namespace std;
int main() {
    const char* arr[] = {"Apple", "Banana", "Cherry"};
    cout << arr[1];
    return 0;
}
```

Banana

Banana

33

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

```
#include <iostream>
using namespace std;
void display(int a) { cout << a << " "; }
int main() { void (*funcPtr)(int) = display; int arr[3] = {10, 20, 30}; for (int i = 0; i < 3; i++) { funcPtr(arr[i]); } return 0; }
```

10 20 30

10 20 30

34	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; int main() { int arr[3] = {1, 2, 3}; int* ptr = arr; cout << *(ptr + 2); return 0; }</pre>	3	3
35	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; class MyClass { public: int x; MyClass() { x = 10; } }; int main() { MyClass obj; cout << obj.x; return 0; }</pre>	10	10

36

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

```
#include <iostream>
using namespace std;
class Rectangle
{ public:
    int length, width;
    Rectangle(int l, int w) {
        length = l; width = w; }
    int main() {
        Rectangle rect(5, 10);
        cout << rect.length << " " << rect.width;
        return 0;
    }
}
```

5 10

5 10

37	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; class Circle { public: double radius; void setRadius(double r) { radius = r; } double getArea() { return 3.14 * radius * radius; } }; int main() { Circle c; c.setRadius(5); cout << c.getArea(); return 0; }</pre>	78.5	78.5
----	--	------	------

38

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

```
#include <iostream>
using namespace std;
class Test {
public:
    Test() {
        cout << "Constructor called" << endl;
    }
    ~Test() {
        cout << "Destructor called" << endl;
    }
};
int main() {
    Test obj;
    return 0;
}
```

Constructor called
Destructor called

Constructor called
Destructor called

39

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

```
#include <iostream>
using namespace std;
class MyClass
{ public:
  int value;
  MyClass()
  { value = 5; }
};
int main() {
  MyClass obj;
  cout << obj.value;
  return 0;
}
```

5

5

40

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

```
#include <iostream>
using namespace std;
class Box {
public:
    int length;
    Box(int l) { length = l; }
};
int main() {
    Box b(10);
    cout << b.length;
    return 0;
}
```

10

10

41	What will be the output of the following C++ program? <pre>#include <iostream> using namespace std; class Animal { public: void sound() { cout << "Animal Sound" << endl; } }; class Dog : public Animal { public: void bark() { cout << "Bark" << endl; } }; int main() { Dog d; d.sound(); d.bark(); return 0; }</pre>	Animal Sound Bark	Animal Sound Bark
----	---	---	---

42

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

```
#include <iostream>
using namespace std;
class Complex {
public:
    int real, imag;
    Complex() : real(0), imag(0) {}
    Complex operator + (const Complex& c) {
        Complex temp;
        temp.real = real + c.real;
        temp.imag = imag + c.imag;
        return temp;
    }
    void display() {
        cout << real << " + i" << imag << endl;
    }
};
int main() {
    Complex c1, c2;
    c1.real = 5;
    c1.imag = 3;
    c2.real = 2;
    c2.imag = 4;
    Complex c3 = c1 + c2;
    c3.display();
    return 0;
}
```

7 + i7

7 + i7

43

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

```
#include <iostream>
using namespace std;
int main() {
    int a = 5,
        b = 10;
    cout << (a + b) * (a > b) << endl;
    return 0;
}
```

0

0

44

What will be the output of the following C++ program that checks for an out-of-bounds access on a 2D array?

```
#include <iostream>
using namespace std;
int main() {
    int arr[2][2] = {{1, 2}, {3, 4}};
    cout << arr[2][2] << endl;
    // Out of bounds
    return 0;
}
```

Undefined behavior

Undefined behavior

45	What will be the output of the following C++ program that reverses each word in a string? <pre>#include <iostream> #include <sstream> using namespace std; int main() { string str = "hello world"; stringstream ss(str); string word; while (ss >> word) { reverse(word.begin(), word.end()); cout << word << " "; } return 0; }</pre>	olleh dlrow	olleh dlrow
----	--	--------------------	--------------------