

```
}  
  
cout << endl;  
  
}  
  
return 0;  
  
}
```

What is the output of this program?

[This question paper contains 8 printed pages.]

Your Roll No.....

Sr. No. of Question Paper : 781

I

Unique Paper Code : 6332491102

Name of the Paper : Object Oriented
Programming using C++

Name of the Course : **B.Voc. (Web Designing)**

Semester : I

Duration : 3 Hours

Maximum Marks : 90

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. **Section A** is compulsory.
3. Attempt any **Four** Questions from **Section B**.
4. Parts of a question must be answered together.
5. Use of scientific calculator is allowed.

Section A

1. (a) Describe the compiling process in C++. (3)

(b) What are the basic data types available in C++? (3)

(c) #include <iostream> (3)

using namespace std;

int main() {

int a = 5, b = 10;

cout<<(a + b) * 2 << endl;

return 0;

}

What is the output?

(d) How binary addition is performed using the 2's complement method? (3)

5. (a) What is the significance of destructors in C++?

When are they called? (8)

(b) Implement a simple program in C++ that demonstrates the use of arrays, functions, and control statements. (7)

6. (a) Discuss the concepts of access control in classes and the role of public, private, and protected modifiers. (7)

(b) #include <iostream> (8)

using namespace std;

int main() {

for (int i = 1; i <= 3; i++) {

for (int j = 1; j <=2; j++) {

cout << i * j << " ";

(b) #include <iostream> (8)

using namespace std;

int main() {

int a = 5, b = 10;

cout << (a + b) * 2 << endl;

return 0;

}

Find output.

4. (a) Discuss the steps involved in performing a linear search on an array. Provide a sample implementation in C++. (7)

(b) Explain the concept of inheritance in C++. Discuss its types with examples. (8)

(e) #include <iostream> (3)

using namespace std;

int main() {

for (int i = 0; i < 5; i++) {

if (i = 2) continue;

cout << i << " ";

}

return 0;

}

Find output.

(f) What is the purpose of the main() function in a C++ program? (3)

- (g) Explain the concept of object-oriented programming (OOP). (3)
- (h) What is the purpose of the main() function in a C++ program? (3)
- (i) Describe the difference between a linear search and a binary search. (3)
- (j) Explain the concept of encapsulation in OOP. (3)

Section B

2. (a) #include <iostream> (7)
- using namespace std;
- int main() {

```
int x = 5;

cout << ++x * 2 << endl;

return 0;

}
```

What is the output of this program.

- (b) Describe how to declare and initialize a 1-D array in C++. Include examples of accessing array elements. (8)
3. (a) Discuss the key characteristics of procedural, modular, and object-oriented programming, highlighting their differences and similarities. (7)