SECTION – A (6 x ½ = 3 Marks)

Answer ALL Questions. Each Question carries HALF Mark.

1 (a) Choose the correct answer: (3 Marks)

(i) A program is a sequence of ----------that can be executed by a computer.

(a) instructions
(b) keywords
(c) reserved words
(d) None

(i) Which of the following symbol in C++ is used to express a logical "NOT"?
(a) <>
(b) ||
(c) !
(d) None

(ii) An ----------is a contiguous region of memory that has an address, a size, a type, and a value.
(a) constant
(b) object
(c) number
(d) None

(iii) The equals sign "=" is the ---------- operator in C++.
(a) assignment
(b) equality
(c) same
(d) None

(iv) The symbol **" <<"** is called the ----------operator in C++.
(a) input
(b) output
(c) Both
(d) None

(v) A compiler is a software system that translates programs into the ----------that the computer's operating system can then run.
(a) assembly language
(b) machine language
(c) low level language
(d) None

(vi) Which floating point data type has the largest datatype ----------.
(a) double
(b) float
(c) int
(d) char

SECTION – A (4 x 0.5 = 2 Marks)

Answer any FOUR Questions. Each Question carries HALF Marks.

1 (b) Fill in the Blanks:

(i) The ----------**if else**---------- statement causes one of two alternative statements to execute depending upon whether the condition is true.

(ii) Single line comment is represented with the symbols-----**-//-**----------

(iii) A ***boolean***----type is an integral type whose variables can have only two values: **false** and **true**.

(iv) A -----***reserved*** -----word is a keyword that serves as a structure marker, used to define the syntax of the language.

SECTION – B (4 x 1.5 = 6 Marks)

Answer any FOUR Questions. Each Question carries ONE & HALF Marks.

2. Short answer questions:

(a) Write the **output** of the following program.

```
#include<iostream>
using namespace std;
#include<conio.h>

int main()
{
int A=5,B=2;
cout<<"\n The value="<<++A - B--;
cout<<"\n The value="<<A++ - --B;
cout<<"\n The value="<<--A + B;
getch();
return(0);
}
```

Ans

1. The value=4
2. The value=6
3. The value=6

(b) Write the **output** of the following program.

```
#include<iostream>
using namespace std;
 int main()
     {
      int p=35,q=6;
      cout<<"\n The value="<<p/q;
      cout<<"\n The value="<<p%q;
      cout<<"\n The value="<<p+q++;
      return(0);
    }
```

Ans

(i) The value = 5

(ii) The value = 5

(iii) The value = 41

(c) The following program code has some error. Find **the error and correct them**.

#include<iostream>
using namespace std;
int main
{
int x
cout<< " Enter two number :";
cin>>x>>y;
if x>y;
cout<<" x is Maximum"<<endl;
else
cout<<"y is Minimum";
return(0);
}
	Ans
	1. int main()
	2. int x,y;
	3. if (x<y)
	No semicolon

(d) What is **floating point Overflow**? Explain with example.

Ans:

Computers are finite, so the range of any type must also be finite. Computers are manifestly prone to error when their decimal (floating point) values become too large. That kind of error is called floating point overflow.

```
Example:
int main()
{
 float x=1000.0;
 cout << "x = " << x << endl;
 x *= x;
 cout << "x = " << x << endl;
 x *= x;
 cout << "x = " << x << endl;
 x *= x;
 cout << "x = " << x << endl;
 x *= x;
 cout << "x = " << x << endl;
}
```

(e) How many **composite assignment operators** are there in C++? Mention them with examples.

Ans : Five

C++ also includes the following **composite assignment operators:**

+=, -=, *=, /=, and %=.

Example:

```
int main()
{
   int n=10;
       n += 5;
```

```
  n -= 5;
  n *= 5;
  n /= 5;
  n %= 5;
 }
```

SECTION – C (4 x 1 = 4 Marks)
Answer any ONE Question. Each Question carries FOUR Marks.

(a) **3.** (a) Write a program in C++ to temperature from Fahrenheit (F) to Celsius(C). The Formula is C=5/9*(F-32).

(b) Fill up the truth table of the following with the value **True(T)/False(F).**

P	Q	(P ‖ !Q)	!(P && Q)
F	F	T	T
F	T	F	T
T	F	T	T
T	T	T	F

(4) Write a program in C++ to display **Minimum of Three Integers.**

Ans ( )

```
#include <iostream>
using namespace std;
#include<conio.h>
int main()
{
   int N1, N2, N3;
    cout << "Enter three integers:";
      cin >> N1 >> N2 >> N3;
   int Min=N1;
   if (N2 < Min)
       Min= N2;
   if (N3 < Min)
       Min = N3;
    cout <<"\n The Minimum among three numbers is="<< Min;
getch();
return 0;
}
```