1 Marks questions

(1) **Which C++ header file(s) will be essentially required to be included to run /execute the following C++ code:**

```
void main()
{
        char Msg[ ]="Sunset Gardens";
        for (int I=5;I<strlen(Msg);I++)        //String.h
        puts(Msg);                             // stdio.h
}
```

Ans : stdio.h, string.h

(2) **Name the header files that shall be need for the following code:** **(CBSE 2012)**

```
void main()
{
        char text[] =”Something”
        cout<<”Remaining SMS chars: ”<<160-strlen(text)<<endl; //string.h
}
```

Ans: iostream.h, string.h

2 Marks questions:

1) **Rewrite the following program after removing the syntactical error(s) if any.Underline each correction**. **CBSE 2012**

```
#include<iostream.h>
Class Item
{
    long IId, Qty;
public:
    void Purchase { cin>>IId>>Qty;}
    void Sale()
    {
        cout<<setw(5)<<IId<<”Old:”<< Qty<<endl;
        cout<< “New :”<<Qty<<endl;
    }  };

void main()
{
    Item I;
    Purchase();
    I.Sale()
}
```

Ans :

```
#include<iostream.h>
    class Item // C capital
    {
    long IId, Qty;
    public:
    void Purchase ( ) { cin>>IId>>Qty;} // ( ) after function name
    void Sale( )
```

```
{
cout<<setw(5)<<IId<<"Old:"<< Qty<<endl;
cout<< "New :"<<Qty<<endl;
}};
void main()
{
Item I;
I. Purchase( ); // object missing
I.Sale( ) ; // ; is missing
}
```

2) Find the output of the following program: CBSE 2012

```
#include<iostream.h>
#include<ctype.h>
typedef char Str80[80];
void main()
{
    char *Notes;
    Str80 str= " vR2GooD";
    int L=6;
    Notes =Str;
    while(L>=3)
    {
        Str[L]=(isupper(Str[L])? tolower(Str[L]) : toupper(Str[L]));
        cout<<Notes<<endl;
        L--;
        Notes++;
    }
}
```

*** consider all required header file are include**

Note (index)	L	str	Output
		vR2GooD	
0	**6**	vR2Goo**d**	vR2Goo**d**
1	**5**	vR2Go**O**d	R2Go**O**d
2	**4**	vR2G**O**Od	2G**O**Od
3	**3**	vR2**g**OOd	**g**OOd

Ans : vR2Good
R2GoOd
2GOOd
gOOd

3) Observe the following program and find out, which output(s) out id (i) to (iv) will not be expected from program? What will be the minimum and maximum value assigned to the variables Chance?

```
#include<iostream.h> CBSE 2012
#include<stdlib.h>
```

```
void main()
{
    randomize();
    int Arr[] = {9,6};, N;
    int Chance = random(2)+10;
    for(int c=0;c<2;c++)
    {
            N= random(2);
            cout<<Arr[N];
    }
}
```

i) 9#6#
ii) 19#17#
iii) 19#16#
iv) 20#16#

Ans: The output not expected from program are (i),(ii) and (iv)
Minimum value of Chance =10
Maximum value of Chance = 11

3 Marks questions:

4) Find the output of the following program: CBSE 2012

```
#include<iostream.h>
class METRO
{
    int Mno, TripNo, PassengerCount;
public:
    METRO ( int Tmno=1)
    { Mno =Tmno; PassengerCount=0;}
    void Trip(int PC=20)
    { TripNo++, PassengerCount+=PC};
    void StatusShow()
    { cout<<Mno<< ":"<<TripNo<< " :"<<PassengerCount<<endl;}
};
void main()
{
```

M

5	0	0
5	**1**	**20**

```
    METRO M(5),T;
    M.Trip();
```

T

1	0	0
1	**1**	**0**

```
    M.StatusShow();
    T.StatusShow();
    M.StatusShow();
}
```

Ans : 5: 1: 20
1: 1: 0
5: 1: 20

2& 3 marks practice questions:

5) **Rewrite the following program after removing the syntactical error(s) if any. Underline each correction**.

```
#include<iostream.h>
void main( )
{ F = 10, S = 20;
test(F;S);
test(S);
}
void test(int x, int y = 20)
{ x=x+y;
count<<x>>y;
}
```

6) **Rewrite the following program after removing syntactical error(s) if any. Underline each correction.**

```
#include “iostream.h”
Class MEMBER
{ int Mno;
float Fees;
PUBLIC:
void Register ( ) {cin>>Mno>>Fees;}
void Display( ) {cout<<Mno<<" : "<<Fees<<endl;}
};
void main()
{ MEMBER delete;
Register();
delete.Display();
}
```

7) Find the output for the following program:

```
#include<iostream.h>
#include<ctype.h>
void Encript ( char T[ ])
{ for( int i=0 ; T[i] != ‘ \0’ ; i += 2)
if( T[i] = = ‘A’ || T[i] = = ‘E’ )
T[i] = ‘#’ ;
else if (islower (T[i] ))
T[i] = toupper(T[i]);
else
T[i] = ‘@’;}
```

```
void main()
{ char text [ ] = "SaVE EArTh in 2012";
encrypt(text);
cout<<text<<endl;
}
```

8) Find the output of the following program:

```
#include<iostream.h>
void main( )
{ int U=10,V=20;
for(int I=1;I<=2;I++)
{ cout<<"[1]"<<U++<<"&"<<V 5 <<endl;
cout<<"[2]"<<++V<<"&"<<U + 2 <<endl; } }
```

9) **Rewrite the following C++ program after removing the syntax error(s) if any. Underline each correction. [CBSE 2010]**

```
include<iostream.h>
class FLIGHT
{ Long FlightCode;
Char Description[25];
public
void addInfo()
{ cin>>FlightCode; gets(Description);}
void showInfo()
{ cout<<FlightCode<<":"<<Description<<endl;}
};
void main( )
{ FLIGHT F;          addInfo.F();    showInfo.F;    }
```

10) In the following program, find the correct possible output(s)from the options:

```
#include<stdlib.h>
#include<iostream.h>
void main( )
{ randomize( );
char City[ ][10]={"DEL", "CHN", "KOL", "BOM", "BNG"};
int Fly;
for(int I=0; I<3;I++)
{Fly=random(2) + 1;
cout<<City[Fly]<< ":";
}}
```

Outputs:

(i) DEL : CHN : KOL: (ii) CHN: KOL : CHN:

(iii) KOL : BOM : BNG: (iv) KOL : CHN : KOL:

11) In the following C++ program what is the expected value of Myscore from options (i) to (iv) given below. Justify your answer.

```
#include<stdlib.h>
#include<iostream.h>
void main( )
{ randomize( );
int Score[ ] = {25,20,34,56,72,63},Myscore;
cout<<Myscore<<endl;
}
```

i) 25 (ii) 34 (iii) 20 (iv) Garbage Value.

Function overloading in C++

- A function name having several definitions that are differentiable by the number or types of their arguments is known as **function overloading**.

Example : A same function **print()** is being used to print different data types:

```
#include <iostream.h>
class printData
{
public:
void print(int i) {
    cout << "Printing int: " << i << endl;
}
void print(double f) {
    cout << "Printing float: " << f << endl;
}
void print(char* c) {
    cout << "Printing character: " << c << endl;
}
};

int main(void)
{
    printData pd;   // Call print to print integer
    pd.print(5);     // Call print to print float
    pd.print(500.263);//// Call print to print character
    pd.print("Hello C++"); return 0;        }
```

When the above code is compiled and executed, it produces following result:

```
Printing int: 5
Printing float: 500.263
Printing character: Hello C++
```