

## OUTPUT

Q1 Find the output of the following programs. Assume all required header files are already being included in the program.

```
#include<stdio.h>
void main( )
{ char *p="Difficult";
char c; c=*p++;
cout<<c;
OUTPUT
D
}
```

```
Q 2
void Position(int &C1, int C2 = 3)
{ C1 += 2;
  C2 += 1;
}
int main()
{ int P1 = 20, P2 = 4;
  Position(P1);
  cout << P1 << " , " << P2 << endl;
  Position(P2, P1);
  cout << P1 << " , " << P2 << endl;
}
```

```
OUTPUT
22, 4
22, 6
```

```
Q3
void Withdef(int HisNum = 30)
{ for (int I = 20; I <= HisNum; I += 5)
  cout << I << " ";
  cout << endl;
}
void Control(int &MyNum)
{ MyNum += 10;
  Withdef(MyNum);
}
int main()
{ int YourNum = 20;
  Control(YourNum);
  Withdef();
  cout << "Number = " << YourNum << endl;
}
```

```
OUTPUT
20 25 30
20 25 30
Number = 30
```

```
Q4
void Encode(char Info[], int N)
int main()
{ char Memo[] = "Justnow";
```

```

    Encode(Memo, 2);
    cout << Memo << endl;
}
void Encode(char Info[], int N)
{ for (int I = 0; Info[I] != '\0'; I++)
    if (I % 2 == 0)
        Info[I] = Info[I] - N;
    else if (islower(Info[I]))
        Info[I] = toupper(Info[I]);
    else
        Info[I] = Info[I] + N;
}

```

OUTPUT

HUqTlOu

Q5

```

void ChangelT(char Text[], char C)
{
    for (int K = 0; Text[K] != '\0'; K++)
    {
        if (Text[K] >= 'F' && Text[K] <= 'L')
            Text[K] = tolower(Text[K]);
        else if (Text[K] == 'E' || Text[K] == 'e')
            Text[K] = C;
        else if (K % 2 == 0)
            Text[K] = toupper(Text[K]);
        else
            Text[K] = Text[K - 1];
    }
}

```

```

int main()
{
    char oldText[] = "pOwERALone";
    ChangelT(oldText, '%');
    cout << "New TEXT:" << oldText << endl;
}

```

OUTPUT

New TEXT: PPW%RRl1lN%

Q6

```

void Convert(char Str[], int Len)
{
    for (int Count = 0; Count < Len; Count++)
    {
        if (isupper(Str[Count]))
            Str[Count] = tolower(Str[Count]);
        else if (islower(Str[Count]))
            Str[Count] = toupper(Str[Count]);
        else if (isdigit(Str[Count]))
            Str[Count] = Str[Count] + 1;
    }
}

```

```

        else Str[Count] = '*';
    }
}
int main()
{
    char Text[] = "CBSE Exam 2005";
    int Size = strlen(Text);
    Convert(Text, Size);
    cout << Text << endl;
    for (int C = 0, R = Size - 1; C < Size / 2; C++, R--)
    {
        char Temp = Text[C];
        Text[C] = Text[R];
        Text[R] = Temp;
    }
    cout << Text << endl;
}

```

OUTPUT

```

cbse*eXAM*3116
6113*MAXe*esbc

```

Q7

```

struct POINT
{
    int X, Y, Z;
};
void StepIn(POINT &P, int Step = 1)
{
    P.X += Step;
    P.Y -= Step;
    P.Z += Step;
}
void StepOut(POINT &P, int Step = 1)
{
    P.X -= Step;
    P.Y += Step;
    P.Z -= Step;
}

int main()
{
    POINT P1 = {15, 25, 5}, P2 = {10, 30, 20};
    StepIn(P1);
    StepOut(P2, 4);
    cout << P1.X << " " << P1.Y << " " << P1.Z << endl;
    cout << P2.X << " " << P2.Y << " " << P2.Z << endl;
    StepIn(P2, 12);
    cout << P2.X << " " << P2.Y << " " << P2.Z << endl;
}

```

OUTPUT

```

16, 24, 6
6, 34, 16

```

18, 22, 28

Q8

```
struct MyBox
{
    int Length, Breadth, Height;
};
void Dimension(MyBox M)
{
    cout << M.Length << "x" << M.Breadth << "x";
    cout << M.Height << endl;
}
int main()
{
    MyBox B1 = {10, 15, 5}, B2, B3;
    ++B1.Height;
    Dimension(B1);
    B3 = B1;
    ++B3.Length;
    B3.Breadth++;
    Dimension(B3);
    B2 = B3;
    B2.Height += 5;
    B2.Length--;
    Dimension(B2);
}
```

OUTPUT

```
10x15x6
11x16x6
10x16x11
```

Q9

```
class Aroundus
{
    int Place, Humidity, Temp;
public:
    Aroundus(int P = 2)
    {
        Place = P;
        Humidity = 60;
        Temp = 20;
    }
    void Hot (int T)
    {
        Temp += T;
    }
    void Humid(int H)
    {
        Humidity += H;
    }
    void JustSee()
```

```

    {
        cout << Place << "." << Temp << "&" << Humidity << "%" << endl;    }
};

int main()
{
    Aroundus A, B(5);
    A.Hot(10);
    A.JustSee();
    B.Humid(15);
    B.Hot(2);
    B.JustSee();
    A.Humid(5);
    A.JustSee();
}

```

OUTPUT

```

2 : 30 & 60%
5 : 22 & 75%
2 : 30 & 65%

```

Q9

```

class Calc
{
    char Grade;
    int Bonus;
public:
    Calc()
    {
        Grade = 'E';
        Bonus = 0;
    }
    void Down(int G)
    {
        Grade -= G;
    }
    void Up(int G)
    {
        Grade += G;
        Bonus++;
    }
    void Show()
    {
        cout << Grade << "#" << Bonus << endl;
    }
};

```

```

int main()
{
    Calc C;
    C.Down(2);
    C.Show();
    C.Up(7);
    C.Show();
    C.Down(2);
    C.Show();
}

```

```
}
```

OUTPUT

C#0

J#1

H#1

Q10

```
class METRO
```

```
{
```

```
    int Mno, TripNo, PassengerCount;
```

```
public:
```

```
    METRO(int Tmno = 1)
```

```
    {
```

```
        Mno = Tmno;
```

```
        TripNo = 0;
```

```
        PassengerCount = 0;
```

```
    }
```

```
    void Trip(int PC = 20)
```

```
    {
```

```
        TripNo++;
```

```
        PassengerCount += PC;
```

```
    }
```

```
    void StatusShow()
```

```
    {
```

```
        cout << Mno << ":" << TripNo << ":" << PassengerCount << endl;
```

```
    }
```

```
};
```

```
int main()
```

```
{
```

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

```
    M.Trip();
```

```
    T.Trip(50);
```

```
    M.StatusShow();
```

```
    M.Trip(30);
```

```
    T.StatusShow();
```

```
    M.StatusShow();
```

```
}
```

OUTPUT

5:1:20

1:1:50

5:2:50

Q11

```
int main()
{
    int X[] = { 10, 25, 30, 55, 110 };
    int *p = X;
    while ( *p < 110)
    {
        if ( *p % 3 != 0)
            *p = *p + 1;
        else
            *p = *p + 2;
        p++;
    }
    for (int l = 4; l >= 1; l--)
    {
        cout << X[l] << "*";
        if (l % 3 == 0)
            cout << endl;
    }
    cout << X[0] * 3 << endl;
}
```

OUTPUT

```
110*56*
32*26*33
```

Q12

```
int main()
{
    int Array[] = { 4, 6, 10, 12 };
    int *pointer = Array;
    int l;
    for (l = 1; l <= 3; l++)
    {
        cout << *pointer << "#";
        pointer++;
    }
    cout << endl;
    for (l = 1; l <= 4; l++)
    {
        ( *pointer) *= 3;
        --pointer;
    }
    for (l = 1; l < 5; l++)
        cout << Array[l - 1] << "@";
    cout << endl;
}
```

OUTPUT

```
4#6#10#
12@18@30@36@
```

Q13

```
int main()
{
```

```

char *String = "SHAKTI";
int *Point, Value[] = {10,15,70,19};
Point = Value;
cout << *Point << String << endl;
String++;
Point++;
cout << *Point << String << endl;
}

```

OUTPUT

```

10SHAKTI
15SHAKTI

```

Q14

```

int main()
{
    int Track[] = { 10, 20, 30, 40}, *Striker;
    Striker = Track;
    Track[1] += 30;
    cout << "Striker > " << *Striker << endl;
    *Striker -= 10;
    Striker++;
    cout << "Next@" << *Striker << endl;
    Striker += 2;
    cout << "Last@" << *Striker << endl;
    cout << "Reset To " << Track[0] << endl;
}

```

OUTPUT

```

Striker > 10
Next@50
Last@40
Reset to 0

```

QUES

```

void ChangeString(char Text[], int &Counter)
{
    char *Ptr = Text;
    int Length = strlen(Text);
    for (; Counter < Length - 2; Counter += 2, Ptr++)
    {
        *(Ptr + Counter) = toupper( *(Ptr + Counter));
    }
}
int main()
{
    int Position = 0;
    char Message[] = "Pointers Fun";
    ChangeString(Message, Position);
    cout << Message << "@" << Position;
}

```

OUTPUT

```

PoiNteRs Fun@10

```

Q15

```

typedef char Str80[80];

int 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++;
    }
}

```

OUTPUT

```

vR2Good
R2GoOd
2GOOd
gOOd

```

Q16 In the following C++ program what is the expected value of MyMarks from Options (i) to (iv) given below. Justify answer. Assume all required header files are already being included in the program.

```

int main()
{
    randomize();
    int Marks[] = { 99, 92, 94, 96, 93, 95 }, MyMarks;
    MyMarks = Marks[1 + random(2)];
    cout << MyMarks << endl;
}

```

(i) 99 (ii) 94 (iii) 96 (iv) None of the above

OUTPUT

ii) 94

Reason : random(2) will return 0 or 1.

Therefore, myMarks can store the value of Marks[1] or Marks[2]

Q17 Go through the C++ code shown below, and find out the possible output or output from the suggested output options (i) to(iv). Also, write the least value and highest value, which can be assigned to the variable guess. Assume all required header files are already being included in the program.

```

int main()
{
    randomize();
    int Guess, High = 4;
    Guess = random(High) + 50;
    for (int C = Guess; C <= 55; C++)
        cout << C << "#";
}

```

```
}
```

(i) 50 # 51 # 52 # 53 # 54 # 55 #

(ii) 52 # 53 # 54 # 55 #

(iii) 53 # 54 #

(iv) 51 # 52 # 53 # 54 # 55

OUTPUT

(i) 50 # 51 # 52 # 53 # 54 # 55 #

(ii) 52 # 53 # 54 # 55 #

(iv) 51 # 52 # 53 # 54 # 55

Least value 50

Highest value 53

Q18 Based on the following C++ code, find out the expected correct output(s) from the options (i) to (iv). Also, find out the minimum and the maximum value that can be assigned to the variable Trick used in the code at the time when value of Count is: 3. Assume all required header files are already being included in the program.

```
int main()
{
    char Status[][10] = {"EXCEL", "GOOD", "OK"};
    int Turn = 10, Trick;
    for(int Count = 1; Count < 4; Count++)
    {
        Trick = random(Count);
        cout << Turn - Trick << Status[Trick] << "#";
    }
}
```

(i) 10EXCEL#10EXCEL#8OK#

(ii) 10EXCEL#8OK#9GOOD#

(iii) 10EXCEL#9GOOD#10EXCEL#

(iv) 10EXCEL#10GOOD#8OK#

OUTPUT

(i) and (iii)

Maximum Value : 2

Minimum Value : 0

Q19 The following code is from a game .which generates a set of 4 random numbers: Yallav is playing this game .help him to identify the correct option(s) out of the four choices given below as the possible set of such numbers generated from the program code so that he wins the game. Justify your answer. Assume all required header files are already being included in the program.

```
const int LOW = 15;
int main()
{
    randomize();
    int POINT = 5, Number;
    for (int I = 1; I <= 4; I++)
    {
        Number = LOW + random(POINT);
        cout << Number << ": ";
        POINT--;
    }
}
```

```
}
```

(i) 19:16:15:18: (ii) 14:18: 15:16: (iii) 19:16:14:18: (iv) 19:16:15:16:

OUTPUT

(iv)

```
In 1st Iteration - Maximum Value = 19, Minimum Value = 15
In 2nd Iteration - Maximum Value = 18, Minimum Value = 15
In 3rd Iteration - Maximum Value = 17, Minimum Value = 15
In 4th Iteration - Maximum Value = 16, Minimum Value = 15
```

Q20 Observe the following program and find out, which output(s) out of (i) to (iv) will not be expected from the program? What will be the minimum and the maximum value assigned to the variable Chance? Assume all required header files are already being included in the program.

```
int 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] + Chance << "#";
    }
}
```

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

OUTPUT

(i)

```
Minimum value: 10
Maximum value: 11
```

Q21 Find the output of the following program. Assume all required header files are already being included in the program.

```
int main()
{ randomize();
  int NUM;
  NUM = random(3) + 2;
  char TEXT[] = "ABCDEFGHIIJK";
  for (int I = 1; I <= NUM; I++)
  { for (int J = NUM; J <= 7; J++)
    cout << TEXT[J];
    cout << endl;
  }
}
```

| i)          | ii)            | iii)        | iv)           |
|-------------|----------------|-------------|---------------|
| <b>FGHI</b> | <b>BCDEFGH</b> | <b>EFGH</b> | <b>CDEFGH</b> |
| <b>FGHI</b> | <b>BCDEFGH</b> | <b>EFGH</b> | <b>CDEFGH</b> |
| <b>FGHI</b> |                | <b>EFGH</b> |               |
| <b>FGHI</b> |                | <b>EFGH</b> |               |

OUTPUT

(iii) and (iv)  
Minimum value of NUM = 2  
Maximum value of NUM = 4

Q.

Study the following program and select the possible output(s) from the option (i) to (iv) following it. Also write the maximum and the minimum values that can be assigned to the variable NUM.

Note: - Assume all required header files are already being included in the program.

- random(n) function generates an integer between 0 and n-1.

```
void main()
{
    randomize();
    int NUM;
    NUM=random(3)+2;
    char TEXT[]="ABCDEFGHJK";
    for (int I=1;I<=NUM; I++)
    {
        for (int J=NUM;J<=7;J++)
        cout<<TEXT[J];
        cout<<endl;
    }
}
```

|          |              |            |             |
|----------|--------------|------------|-------------|
| (i) FGHI | (ii) BCDEFGH | (iii) EFGH | (iv) CDEFGH |
| FGHI     | BCDEFGH      | EFGH       | CDEFGH      |
| FGHI     |              | EFGH       |             |
| FGHI     |              | EFGH       |             |

Ans (iii) and (iv)

Minimum value of NUM = 2 and Maximum value of NUM = 4

Q.

Go through the C++ code shown below, and find out the possible output or outputs from the suggested Output Options (i) to (iv). Also, write the least value and highest value, which can be assigned to the variable Guess.

```
#include<iostream.h>
#include<stdlib.h>
void main ( )
{
    randomize ( ) ; int Guess, High=4; Guess=random(High)+ 50 ;
    for(int C=Guess ; C<=55 ; C++)
    cout<<C<<"#" ; }
```

i) 50 # 51 # 52 # 53 # 54 # 55 #

(ii) 52 # 53 # 54 # 55

(iii) 53 # 54 #

(iv) 51 # 52 # 53 # 54 # 5568.

Ans (i) 50 # 51 # 52 # 53 # 54 # 55 #

Least value 50

Highest value 53

50. Go through the C++ code shown below, and find out the possible output or outputs from the suggested Output Options (i) to (iv). Also find out the minimum and maximum value that can be assigned to Guess at the time when value of Turn is 3.

```
#include<iostream.h>
#include<stdlib.h>
void main()
{
    char Result[][10]={"GOLD","SILVER","BRONZE"};
    int Gt=9,Guess;
```

```

for(int Turn=1;Turn<4;Turn++)
{
Guess=random(Turn);
cout<<(Gt-Guess)<<Result[Guess]<<"*";
}
}

```

- (i) 9GOLD\*9GOLD\*8SILVER\*
- (ii) 9GOLD\*7BRONZE\*8GOLD\*
- (iii) 9GOLD\*8SILVER\*9GOLD\*
- (iv) 9GOLD\*8SILVER\*8GOLD\*

**Ans** Correct answer is 9GOLD\*9GOLD\*8SILVER\*

Minimum value of Guess is 0 and Maximum is 2

51. Observe the code carefully and find which output(s) will be expected from the program? and justify your answer:

```

#include <iostream.h>
#include <stdlib.h>
const int K=2;
void main()
{
    randomize();
        int A;
        A=random(K)+2;
        for(int i=A;i<3;i++)
            cout<<i<<" ";
            cout<<endl;
}

```

- (i) 1,2,                      (ii) 0,1,2                      (iii) 2,                      (iv) 0,1,2,

**Ans** (iii) 2,

Minimum value of A is 2 and Maximum is 3

52.

Observe the code carefully and find which output(s) will be expected from the program?

Justify your answer:

```
#include <iostream.h>
```

```
#include <stdlib.h>
```

```
void main()
```

```
{  randomize();  int A;  A=2+random(3);
```

```
    for(int i=A;i<5;i++)
```

```
        cout<<'# '<<i;
```

```
    }
```

(i) #1#2#3      (ii) #2#3#4      (iii) #4#3#2      (iv) None of these

Ans (ii) #2#3#4 because Minimum value of A=2 and Maximum is 4 and i is increasing (i++)

53.

Observe the code carefully and find which output(s) will not be expected from the program?

Justify your answer:

```
#include <iostream.h>
```

```
#include <stdlib.h>
```

```
const int K=4;
```

```
void main()
```

```
{  randomize();
```

```
    int A;
```

```
    A=2+random(K);
```

```
        for(int i=0;i<A;i++)
```

```
            cout<<i<<" ";
```

```
    }
```

- (i) 0,1,      (ii) 0,1,2,      (iii) 0,2,4,      (iv) 0,1,2,3,4,5,

**Ans** (iii) 0,2,4, because minimum value of A=2 and Maximum value is 5

54.

Observe the code carefully and select most possible answer from the choices given below and justify your answer:

```
#include <iostream.h>
#include <stdlib.h>
#define K 4
void main()
{  randomize();
    int A;
    A=20+random(K);
    for(int i=A;i>=20;i--)
        cout<<i<<"^";
    cout<<endl;
}
```

- (i)  $22^{21}^{20}^{19}^{18}$       (ii)  $24^{23}^{22}^{21}^{20}^{19}$   
 (iii)  $20^{21}^{22}^{23}$       (iv)  $20^A$

**Ans** (iv)  $20^A$  because Minimum value of A=20 and Maximum value is 23

55.Observe the following code carefully, if the value of num entered by user is 4, choose the correct

possible output(s) from the options from (i) to (iv) and justify your option.

```
#include<iostream.h>
#include "stdlib.h"
```



**Ans**

(iv) 20#250#

because Start has minimum value as 2 and maxim as 3

**57**

Read the following C++ code carefully and find out, which out of the given options (i) to (iv) are the expected correct output(s) of it. Also, write the maximum and minimum value that can be assigned to the variable **Taker** used in the code :

```
#include<iostream.h>
#include <stdlib.h>
void main()
{ int GuessMe[4]={100,50,200,20};
int Taker=random(2)+2;
  for (int Chance=0;Chance<Taker;Chance++)
cout<<GuessMe[Chance]<<"#"; }
```

(i) 100#

(ii) 50#200#

(iii) 100#50#200#

(iv) 100#50

**Ans (iii) 100#50#200#** because minimum value of Tanker is 2 and Maximum value is 3

## OUTPUT QUESTIONS

### 3 marks Questions

1. Write the output of the following C++ program code:

Note: Assume all the required header files are already being included in the program.

```
class Calc
{
char Grade;
int Bonus;
public:
Calc(){Grade='E' ; Bonus=0;}
void Down(int G)
{ Grade= G; }
void Up(int G)
```

```

{ Grade+=G; Bonus++; }
void Show()
{ cout<<Grade<<"#"<<Bonus<<endl;}
};
void main()
{
Calc c;
C.Down(97); C.Show();
C.Up(3);      C.Show();
C.Up(-32); C.Show();
}

```

Ans 1.

Undefined symbol C in function main()

If error is removed then output will be:

a#0

d#0

D#0

2. Write the output of the following C++ program code:

Note: Assume all the required header files are already being included in the program.

```

class Eval
{
    char Level;
    int Point;
public:
    Eval() {Level='E';Point=0;}
    void Sink(int L)
    { Level-= L; }
    void Float(int L)
    { Level+= L; Point++; }
    void Show()
    { cout<<Level<<"#"<<Point<<endl;
    } };
void main()
{
    Eval E;
    E.Sink(3);
    E.Show();
}

```

```
E.Float(7);  
E.Show();  
E.Sink(2);  
E.Show();  
}
```

Ans 2.

B#0

I#1

G#1

3. Obtain the output of the following C++ program code:  
Note: Assume all the required header files are already being included in the program.

```
class Player  
{  
int Score,Level;char Game;  
public :  
Player(char GGame='A')  
{Score=0;Level=1;Game=GGame;}  
void Start(int SC) ;  
void Next();  
void Disp()  
{ cout<<Game<<"@"<<Level<<endl;  
cout<<Score<<endl;  
}};  
void main()  
{ Player P,Q('B');  
P.Disp();  
Q.Start(75);  
Q.Next();  
P.Start(120);  
Q.Disp();
```

```

        P.Disp();
    }
void Player::Next()
{   Game=((Game=='A')?'B':'A'); }
void Player::Start(int SC)
{   Score+=SC;
    if (Score >=100 )
        Level=3;
    else if (Score>=50 )
        Level=2;
    else
        Level=1;
}

```

Ans 3.

A@1

0

A@2

75

A@3

120

4.

Obtain the output of the following C++ program code:  
 Note: Assume all the required header files are already being included in the program.

```

void in(int x,int y,int &z)
{ x+=y;   y--;   z*=(x-y); }
void out(int z,int y, int &x)
{ x*=y;   y++; z/=(x+y); }
void main()
{ int a=20, b=30, c=10;
  out(a,c,b);
  cout<<a<<"#"<<b<<"#"<<c<<"#"<<endl;

```

```

in(b,c,a);
cout<<a<<"@"<<b<<"@"<<c<<"@"<<endl;
out(a,b,c);
cout<<a<<"$"<<b<<"$"<<c<<"$"<<endl;
}

```

**Ans**

**4.**

**20#300#10#**

**6020@300@10@**

**6020\$300\$3000\$**

5. Obtain the output of the following C++ program code:  
#include<iostream.h>

```

class TQ
{
int r; float s;
public:
TQ(){ r=1;s=5;}
TQ(TQ &Q)
{ r=Q.r++; s=Q.s+=5; }
void Bonus(float B=5)
{ s+=B; }
void Res() { cout<<r<<', '<<s<<endl;}
};

void main()
{ TQ A;
A.Res();
A.Bonus(10);
A.Res();
TQ B(A);
B.Bonus();
B.Res();
}

```

Ans 5.

1,5

1,15

1,25

6. Obtain the output of the following C++ program code:

```
#include<iostream.h>
class env
{
char pl; int humd,temp;
public:
env()
{ pl='B';humd=100;temp=40; }
void hot(int t=5)
{ temp+=t;}
void humid(int h=10)
{ humd+=h;}
void forecast()
{ cout<<pl<<"++"<<temp<<"&"<<humd<<"%"<<endl; }
};
void main()
{
env A;
A.hot(10);
A.forecast();
A.humid(5);
A.forecast();
A.hot(); A.humid();
A.forecast();
}
```

**Ans 6.**

**B++50&100%**

**B++50&105%**

**B++55&115%**

7. Obtain the output of the following C++ program code:

```
#include<iostream.h>
void execute (int &x, int y=200)
{
    int temp=x+y; x+=temp;
        if(y!=200)
            cout<<temp<<','<<x<<','<<y<<endl;
    }
void main()
{
    int a=10, b=20;
        execute(b);
            cout<<a<<','<<b<<endl;
        execute(a,b);
            cout<<a<<','<<b<<endl;
    }
```

**Ans 7.**

**10,240**

**250,260,240**

**260,240**

8. Obtain the output of the following C++ program code:

```
#include<iostream.h>
int a=4;
void func(int x, int &y)
{
    y=x+10;
        x=x+y;
    }
void main( )
```

```

        {   int a=7;
func(a, ::a);
        cout<<a<< ", "<<::a<<endl;
func(a, ::a);
        cout<<a<< ", "<<::a<<endl;
        { int a=6; cout<< - - a; }
    }

```

**Ans 8.**

**7,17**

**7,17**

**6**

9. Obtain the output of the following C++ program code:

```

#include <iostream.h>
struct PLAY
{ int Score, Bonus;};
void Calculate(PLAY &P, int N=10)
{
P.Score++;P.Bonus+=N;
}

void main()
{
PLAY PL={10,15};
Calculate(PL,5);
cout<<PL.Score<<" "<<PL.Bonus<<endl;
Calculate(PL);
cout<<PL.Score<<" "<<PL.Bonus<<endl;
Calculate(PL,15);
cout<<PL.Score<<" "<<PL.Bonus<<endl;
}

```

**Ans 9.**

**11:20**

**12:30**

**13:45**

10. Obtain the output of the following C++ program code:

```
#include<iostream.h>

struct Package
{ int Length,Breadth,Height;
};

void Occupies(Package M)
{ cout<<M.Length<<"x"<<M.Breadth<<"x";
cout<<M.Height<<endl;
}

void main( )
{ Package P1={10,20,30},P2,P3;
++P1.Height;
Occupies(P1);
P3=P1;
++P3.Length;
P3.Breadth++;
Occupies(P3);
P2=P3;
P2.Height+=50;
P2.Length--;
Occupies(P2);
}
```

**Ans 10.**

**Error: length is not member of 'Package' in function main().**

If 'length' replaced with 'Length' then output will be:

**10x20x31**

**11x21x31**

**10x21x81**

11. Obtain the output of the following C++ program code:

```
#include<iostream.h>
void Indirect(int Temp=25)
{ for(int I=15;I<=Temp;I+=5)
  cout<<I<<' ';
  cout<<endl;
}
void Direct(int &Num)
{ Num+=10;
  Indirect(Num);
}
void main( )
{ int Number=10;
  Direct(Number);
  Indirect( );
  cout<<"Number ="<<Number<<endl;
}
```

**Ans 11.**

**15 20**

**15 20 25**

**Number=20**

12. Obtain the output of the following C++ program code:

```
#include<iostream.h>
#include<ctype.h>
```

```

void main( )
{ char STR[]="WhatOutPut!";
for(int I=0; STR[I]!='\0';I++)
{ if(!isalpha(STR[I]))
STR[I]='*';
else if(isupper(STR[I]))
STR[I]=STR[I]+1;
else
STR[I] =STR[I+1];
}
cout<<STR;}

```

**Ans 12.**

**XatOPtPQt!\***

13. Find the output of the following C++ program code:

```

#include <iostream.h>
struct POINT
{ int X, Y, Z;
};
void StepIn(POINT & P, int Step=1)
{ P.X+=Step;
P.Y-=Step;
P.Z+=Step;
}
void StepOut(POINT & P, int Step=1)
{ P.X-=Step;
P.Y+=Step;
P.Z-=Step;
}
void main ( )
{ POINT P1={15, 25, 5}, P2={10, 30, 20};

```

```

StepIn(P1);
StepOut(P2,4);
cout<<P1.X<<" "<<P1.Y<<" "<<P1.Z<<endl;
cout<<P2.X<<" "<<P2.Y<<" "<<P2.Z<<endl;
StepIn(P2,12);
cout<<P2.X<<" "<<P2.Y<<" "<<P2.Z<<endl;
}

```

**Ans 13.**

**16 24 6**

**6 34 16**

**18 22 28**

14. Find the output of the following C++ program code:

```

#include<iostream.h>
void SwitchOver(int A[], int N, int Split)
{for (int K=0 ; K<N; K++)
  if (K<Split)
    A[K]+=K;
  else
    A[K]*=K;
}
void Display (int A[], int N)
{for (int K=0 ; K<N ; K++)
  (K%2==0)?cout<<A[K]<<" ":cout<<A[K]<<endl;
}
void main ()
{ int H[]={30,40,50,20,10,5};
  SwitchOver (H,6,3);
  Display(H,6);
}

```

**Ans 14.**

30%41

52%60

40%25

58. Write the output of the following C++ program code:

Note: Assume all required header files are already being included in the program .

```
void Position (int &C1, int C2=3)
{
C1+=2;
C2+=Y;
}
void main()
{
int P1=20, P2=4;
Position(P1);
cout<<P1<<" , "<<P2<<endl;
Position(P2, P1);
cout<<P1<<" , "<<P2<<endl;
}
```

**Ans** Error: Undefined symbol y in function definition,  
if Y is declared with some value **then output will be:**

22,4

22,6

59. Write the output of the following C++ program code:

Note: Assume all required header files are already being included in the program.

```
void Location(int &X,int Y=4)
{
```

```

Y+=2;
X+=Y;
}
void main()
{
int PX=10,PY=2;
Location(PY) ;
cout<<PX<<" , "<<PY<<endl ;
Location(PX,PY);
cout<<PX<<" , "<<PY<<endl ;
}

```

Ans

10, 8

20, 8

60. Write the output of the following C++ program code:

```
#include<iostream.h>
```

```
#include<ctype.h>
```

```
void Mycode(char Msg[],char CH)
```

```

{
    for(int cnt=0;Msg[cnt]!='\0';cnt++)
        { if(Msg[cnt]>='B'&& Msg[cnt]<='G')
            Msg[cnt]=tolower(Msg[cnt]);
          else
            if(Msg[cnt]=='N'||Msg[cnt]=='n'||Msg[cnt]==' ')
                Msg[cnt]=CH;
            else
                if(cnt%2==0)
                    Msg[cnt]=toupper(Msg[cnt]);
                else

```

```

    Msg[cnt]=Msg[cnt-1];
  }}
void main()
{ char MyText[]="Input Raw";
  Mycode(MyText,'@');
  cout<<"NEW TEXT:"<<MyText<<endl;
}

```

Ans .

```
New Text:I@PPT@RRW
```

61.

Obtain the output from the following C++ program as expected to appear on the screen after its execution.

Important Note : - All the desired header files are already included in the code, which are required to run the code.

```

void main()
{ char *Text="AJANTA";
  int *P, Num[]={1,5,7,9}; P=Num;
  cout<<*P<<Text<<endl; Text++;
  P++;
  cout<<*P<<Text<<endl;
}

```

Ans

```

1AJANTA
5JANTA

```

62 . Obtain the output from the following C++ program as expected to appear on the screen after its execution.

```
#include<iostream.h>
```

```

void SwitchOver(int A[],int N,int split)
{ for(int K=0;K<N;K++)
  if(K<split)
    A[K]+=K;  else  A[K]*=K;
}
void Display(int A[],int N)
{ for(int K=0;K<N;K++)
  (K%2==0)?cout<<A[K]<<"%":cout<<A[K]<<endl;
}
void main() { int H[]={30,40,50,20,10,5};
  SwitchOver(H,6,3);
  Display(H,6);
}

```

**Ans**

30%41

52%60

40%25

**63.**

Find the output of the following program :

```

#include <iostream.h>
#include <ctype.h>
void Changelt(char Text[ ], char C)
{ for (int K=0;Text[K]!='\0';K++)
  { if (Text[K]>='F' && Text[K]<='L')
    Text[K]=tolower (Text[K]);
    else
    if (Text[K]=='E' || Text[K]=='e')
    Text[K]=C;
    else

```

```

    if (K%2==0)
        Text[K]=toupper(Text[K]);
    else

        Text[K]=Text[K-1];
    }
}

void main ( )
{
    char OldText[ ]="pOwERALone";
    Changelt(OldText,'%');
    cout<<"New TEXT:"<<OldText<<endl;

}

```

Ans New Text : PPW%RR11N%

64.

Find. the output of the following program:

```

#include <iostream.h>

#include <ctype.h>

void MyCode (char Msg [], char CH)
{ for (int Cnt=0;Msg[Cnt]!='\0';Cnt++)
    { if (Msg[Cnt]>='B' && Msg[Cnt]<='G')
        Msg[Cnt]=tolower(Msg[Cnt]);
        else if (Msg[Cnt]=='A' || Msg[Cnt]=='a')
            Msg[Cnt]=CH;
        else if (Cnt%2==0)
            Msg[Cnt]=toupper(Msg[Cnt]);
        else
            Msg[Cnt]=Msg[Cnt-1];
    }
}

```

```

void main ()
{ char MyText [] ="ApEACeDriVE";
MyCode(MyText,'@');
cout<<"NEW TEXT:"<<MyText<<endl; }

```

Ans .

NEW TEXT :@@e@ccddlle

65. Find the output of the code segment given below:

```

#include<iostream.h>
void main( )
{ int A=5,B=10;
for(int l=1;l<=2;l++)
{ cout<<"Line1"<<A++<<"&"<<B-2 <<endl;
cout<<"Line2"<<++B<<"&"<<A+3 <<endl;
}
}

```

Ans .

Line15&8  
Line211&9  
Line16&9  
Line212&10

66. Find the putput.

```

#include<iostream.h>
void main( )
{ long int NUM=1234543;
int F=0,S=0;

```

```

do
{ int R=NUM % 10;
if (R %2!= 0)
F+= R;
else
S+= R;
NUM/= 10;
} while (NUM>0);
cout<<F-S;
}

```

Ans Output: 2

67. Find the output of the following program:

```

#include<iostream.h>
void main( )
{ int var1=5,var2=10;
for(int i=1;i<=2;i++)
{ cout<<var1++<<'\t'<<--var2<<endl;
cout<<var2--<<'\t'<<++var1<<endl;
}
}

```

Ans .

Output:

```

5    9
9    7
7    7
7    9

```

68.What will be the result of following code in C++?

```

#include<iostream.h>

void main()
{   int a=4,b=2,c=6,d=1;
        cout<<(a+6)>=9+b || d*b<=10 && a+b+c/d)<<endl;
        cout<<(a--+2*b+++a/d);
}

```

**Ans**

1  
12

69. Find the output of code given below:

```

#include <iostream.h>

int main() { int i=0,a=0,b=0,c=0;
        while(i<=4)
        { switch(i++)
          { case 1: ++a; break;
            case 2:
            case 3: ++b;
            case 4: ++c;
            default: break;  }  }

        cout<<"a="<<a<<"b="<<b<<endl;  cout<<"c="<<c;

return 0; }

```

**Ans .**

a=1b=2  
c=3

70. What will be the output of the following code fragment?

```

#include<iostream.h>

int x=10;

```

```

void test( int a,int &b,int c=5)
{  a+=x+c;  b=x*c;  c=x/c;
  cout<<a<<","<<b<<","<<c<<endl;      }
void main( )
{  int x=10,y=20;
  test(x,y,::x);
  cout<<x<<","<<y<<","<<::x<<endl;
  test(::x,x,y);      cout<<::x<<endl;  }

```

**Ans**

```

30,100,1
10,100,10
120,1000,0
10

```

71.Find the output of the following program:2

```

#include <iostream.h>
#include <ctype.h>
void Encode (char Info [ ], int N) ;
void main ( )
{ char Memo[ ]= "Justnow" ;
  Encode (Memo,2) ;
  cout<<Memo<<endl ;
}
void Encode (char Info [ ], int N)
{ for (int I = 0;Info[I] !='\0';I++)
  if (I%2==0)
  Info[I] = Info[I] -N ;
  else if (islower(Info[I]))

```

```

Info[l] = toupper(Info[l]) ;

else

Info[l] = Info[l] +N ;

}

```

Ans .

HuqTlOu

72.Find the output of the following program:2

```

#include <iostream.h>
#include <ctype.h>
void Secret (char Mig[ ], int N);
void main ( )
{ char SMS[ ] = "rEPorTmE" ;
Secret{SMS,2);
cout<<SMS<<end1;
}
void Secret(char Msg[ ], int N)
{ for (int C=0; Msg[C] !=' \0' ;C++)
if (C%2==0)
Msg[C] = Msg[C]+N;
else if (isupper(Msg[C]))
Msg[C] = tolower(Msg[C]);
else
Msg[C] = Msg[C]-N;
}

```

Ans teRmttoe