

# NCERT Solutions for Class 12 Computer Science (C++) – Pointers

## Very Short Answer Type Questions [1 mark each]

### Question 1:

Write the definition of a function FixPay (float Pay[], int N) in C++ , which should modify each element of the array Pay having N elements, as per the following rules :

| Existing Salary Value | Required Modification in Value |
|-----------------------|--------------------------------|
| If less than 1,00,000 | Add 25% in the existing value  |

|                           |                               |
|---------------------------|-------------------------------|
| If >=1,00,000 and <20,000 | Add 20% in the existing value |
| If >=2,00,000             | Add 15% in the existing value |

### Answer:

```

Void FixPay(float Pay[],int N)
{
for(int i=0;i<N;i++)
{
if(Pay[i]<100000)
Pay[i]+= Pay[i]*0.25;
else if(Pay[i]<200000)
Pay[i]+= Pay[i]*0.20;
else
Pay[i]+= Pay[i]*0.15 ;
}
}

```

### Question 2:

Write the definition of a member function INSERT() for a class QUEUE in C++ , to remove a product from a dynamically allocated Queue of items considering the following code is already written as a part of the program.

```

Struct ITEM
{

```

```

int IN0; char INAME[20];
ITEM*Link;
};
class QUEUE
{
ITEM *R,*F;
Public:
QUEUE(){R=NULL; F=NULL;}
void INSERT();
void DELETE();
~QUEUE();
};

```

### Answer:

```

Void QUEUE::INSER()
{
ITEM*newitem = new ITEM;
Cout<<"enter item number";
cin>>newitem → IN0;
Cout<<"Enter item name";
gets(newitem → INAME);
newitem → Link = NULL;
if (R==NULL)
R=F=newitem;
else

```

```
{  
  R → Link=newitem;  
  R = newitem;  
}
```

### Short Answer Type Questions-I

#### Question 1:

Write the output from the following C++ program code :

```
#include<iostream.h>  
#include<ctype.h>  
void strcon(char s[])  
{  
  for(int i=0,l=0;s[i]!='\0';i++,l++);  
  for(int j=0;j<l;j++)  
  {  
    if(isupper(s[j]))  
      s[j]=tolower(s[j])+2;  
    else if( islower(s[j]))  
      s[j]=toupper(s[j])-2;  
    else  
      s[j] ='@';  
  }  
}  
void main()
```

```

{
char *c="Romeo Joliet";
strcon(c);
cout<<"Text="<<c<<endl;
c=c+3;
cout<<"New Text="<<c<<endl;
c=c+5-2 ;
cout<<"last Text= "<<c;
}

```

### Answer:

Text = tMKCM@IMJGCR  
New Text = KCM@1MJGCR  
Last Text = 1MJGCR

### Question 2:

Obtain the output of 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;  
}
```

**Answer:**

1AJANTA

5JANTA

**Question 3:**

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 *String="SARGAM";  
    int *Ptr, a[]={1,5,7,9};  
    ptr=a;  
    cout<<*ptr<<String<<endl;  
    String++;  
    ptr+=3;  
    cout<<*ptr<<String<<endl;  
}
```

**Answer:**

1 SARGAM

**Question 4:**

Give the output of the following program segment: (Assuming all desired header file(s) are already included)

```
void main()
{
float *Ptr, Points[] = {20,50,30,40,10};
Ptr = points;
cout<<*Ptr<<endl;
Ptr+=2;
Points[2]+=2.5;
cout<<*Ptr<<endl;
Ptr++;
(*Ptr)+=2.5;
cout<<Points[3]<<endl;
}
```

**Answer:**

20.00 32.5

42.50

**Question 5:**

Find the output of the following code :

Important Note :

All the header files are already included in the code, which are required to run the code.

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

**Answer:**

10SHAKTI

15SHAKTI

**Question 6:**

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

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

```
void change(int*s)
{
for(int i=0;i<4;i++)
{
if(*s<40)
{
if(*s%2==0)
```

```

*s=*s+10;
else
*s=*s+11;
}
else
{
if(*s%2==0)
*S=*S-10;
else
*s=*s-11;
}
cout<<*s<<" ";
s++;
}
}
void main()
{
int score[]={25,60,35,53 };
change(score);
}

```

**Answer:**

36 50 46 42

**Short Answer Type Question-II**

### Question 1:

Find the output of the following program :

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

**Answer:**

20#300#10#

620@300@10@

620\$300\$3000\$

**Long Answer Type Questions****Question 1:**

Find the output of the following code:

```
#include<iostream.h>
void main()
{
    int *Striker;
    int Track[]={10,25,30,55};
    Striker=Track;
    Track[1]+=30;
    cout<<"Striker"<<*Striker<<endl;
    *Striker=-10;
    Striker++;
    cout<<"Next@"<<*Striker<<endl;
    Striker+=2;
    cout<<"Last@"<<*Striker<<endl;
    cout<<"Rest To"<<*Track[0]<<endl;
}
```

**Answer:**

Striker 10

Next@55

Last@55

Rest To 0

**Question 2:**

Find the output of the following code :

```
#include<iostream.h>
void main()
{
    int *Queen;
    Moves[]={11,22,33,44};
    Queen=Moves;
    Moves[2]+=22;
    cout<<"Queen@"<<*Queen<<endl;
    *Queen-=11;
    Queen+=2;
    cout<<"Now@"<<*Queen<<endl;
    Queen++;
    cout<<"Finally@"<<*Queen<<endl;
    cout<<"NewOrigin@"<<*Moves[0]<<endl;
}
```

**Answer:**

Queen@11

Now@55

Finally@44

NewOrigin@0