Name		**C**
Roll No.	Dept.	Section

Instructions:
1. This question paper contains a total of **1** page (**1** side of paper).
2. Write your name, roll number, department, and section on every side of every sheet of this booklet
3. Write final answers neatly with a blue/black pen in the given boxes.
4. **Answers written outside the box will NOT be graded.**

Total **10 Marks**

Q. 1: Write the output of the following program in the appropriate box and answer the question.   (2+2+2 = 6 Marks)

```
1    #include<stdio.h>
2    void func1(int *arr){
3         for(int i=1; i<=5;i++)
4        (i-1)[arr] = (i%5);
5    }
6    void func2 (int a[1] , int arr){
7         a[0] = arr + 3;
8    }
9    int main(){
10     int arr[6] = {2,2,2,2,2};
11     func1(arr+1);
12     for(int i=0; i<6; i++)
13         printf("%d ", i[arr] );
14     printf("\n");
15     func2(arr, *arr);
16     for(int i=0; i<6; i++)
17         printf("%d ", i[arr] );
18     return 0;
19  }
```

Output
2 1 2 3 4 0
5 1 2 3 4 0

Will the answer change if we write func2 as:

```
void func2 (int a[1] , int arr){
  int temp = arr + 4;
  a = &temp;
}
```
Explain your answer

If the response is yes/will provide segmentation fault, award 1 mark, if the explanation is correct too (segmentation error happens since a[1] is unpredictable) award 1 mark

Q. 2: Write the output of the following sequence of instructions `long arr2[90];`
`int arr1[80], a1=(&arr2[60]), a2=(&arr2[10]), b1=(&arr1[60]), b2=(&arr1[10]);`
`printf("%d %d", a1-a2 , b1-b2);` Explain your answer*.*   (2+2 Marks)

400 200
Subtraction is of the addresses and they will count the shift of one address position in the array as one.