

Lab 10

Pointer in C

Marks: 5

Question 01:

Write a program in C to count the number of vowels and consonants in a string using a pointer.

Question 02:

Make a program which takes user input in array. Use pointers.

- Sort the array elements
- Find the maximum
- Reverse the order of array.

Write a program to swap two variables by passing the reference of these variables into a function declared as void swap(int *, int *).

Question 03:

The C library string.h contains the function strcpy(dest,src) that copies src string to a dest string. Write an alternative version of the strcpy with the following prototype. The function returns 0 if successful and returns 1 if fails for some reason.

Question 04:

Find error!

-

```
#include <stdio.h>

/* doesn't work */
void
doubler(int *x)
{
    *x *= 2;
}

int
main(int argc, char **argv)
{
    int y;

    y = 1;

    doubler(&y);

    printf("%d\n", y);

    return 0;
}
```

- b. Function should return the sum. Find error!

```
#include <stdio.h>

int sum(int *a , int n){
    int i=0,x;
    while(i<n)
    {x=x+a[i];
    i++;
    }
    return x;
}

int main()
{ int a[]={56,76,88,45};
  int n=6;
  int r=0;
  r=sum(a,n);
  printf(":%d \n",r);
}
```

- c. Find errors.

```
#include<stdio.h>
int *check(static int, static int);

int main()
{
    int *c;
    c = check(10, 20);
    printf("%d\n", c);
    return 0;
}

int *check(static int i, static int j)
{
    int *p, *q;
    p = &i;
    q = &j;
    if(i >= 45)
        return (p);
    else
        return (q);
}
```