Assignment 18 ;

Q!.

```
#include<stdio.h>
void swap(int *,int *);
int main()
{
    int n1,n2;
    printf("\n\n Function : swap two numbers using function :\n");
    printf("------------------------------------------------\n");
    printf("Input 1st number : ");
    scanf("%d",&n1);
    printf("Input 2nd number : ");
    scanf("%d",&n2);
    printf("Before swapping: n1 = %d, n2 = %d ",n1,n2);
    swap(&n1,&n2);
    printf("\n After swapping: n1 = %d, n2 = %d \n\n",n1,n2);
    return 0;
}
void swap(int *p,int *q)
{
    int tmp;
    *p=*q;
    *q=tmp;
}
```

Q2.

```
#include<stdio.h>
void swap1(char **str1_ptr, char **str2_ptr)
{
char *temp = *str1_ptr;
*str1_ptr = *str2_ptr;
*str2_ptr = temp;
}
int main()
{
char *str1 = "shivam";
char *str2 = "sahu";
swap1(&str1, &str2);
printf("str1 is %s, str2 is %s", str1, str2);
getchar();
return 0;
```

Q3;

```
  include <stdio.h>
void main()
{

    int i, j, a, n, number[30];
    printf("Enter the value of N \n");
    scanf("%d", &n);

    printf("Enter the numbers \n");
    for (i = 0; i < n; ++i)
        scanf("%d", &number[i]);

    for (i = 0; i < n; ++i)
    {

        for (j = i + 1; j < n; ++j)
        {

            if (number[i] > number[j])
            {

                a =  number[i];
                number[i] = number[j];
                number[j] = a;
            }

        }

    }

    printf("The numbers arranged in ascending order are given below \n");
    for (i = 0; i < n; ++i)
        printf("%d\n", number[i]);

}
```

Q3:

```
 #include <stdio.h>
void main()
{
    int i, j, a, n, number[30];
    printf("Enter the value of N \n");
    scanf("%d", &n);

    printf("Enter the numbers \n");
    for (i = 0; i < n; ++i)
        scanf("%d", &number[i]);
    for (i = 0; i < n; ++i)
    {
       for (j = i + 1; j < n; ++j)
        {
           if (number[i] > number[j])
            {
                a =  number[i];
                number[i] = number[j];
                number[j] = a;
            }
        }
    }
    printf("The numbers arranged in ascending order are given below \n");
     for (i = 0; i < n; ++i)
        printf("%d\n", number[i]);
}
```

Q4:

```
 include <stdio.h>
int main()
{
    char str[100];
    char *p;
    int  vCount=0,cCount=0;
    printf("Enter any string: ");
    fgets(str, 100, stdin);
    p=str;
    while(*p!='\0')
    {
        if(*p=='A' ||*p=='E' ||*p=='I' ||*p=='O' ||*p=='U'
                ||*p=='a' ||*p=='e' ||*p=='i' ||*p=='o' ||*p=='u')
            vCount++;
        else
            cCount++;
        p++;
    }
    printf("Number of Vowels in String: %d\n",vCount);
    printf("Number of Consonants in String: %d",cCount);
    return 0;
}
```

Q5.

```
#include <stdio.h>
void main()
{
   int arr1[100];
   int i,n, sum = 0;
   int *pt;

    printf("\n\n Pointer : Sum of all elements in an array :\n");
    printf("------------------------------------------------\n");
   printf(" Input the number of elements to store in the array: ");
   scanf("%d",&n);
   printf(" Input %d number of elements in the array : \n",n);
   for(i=0;i<n;i++)
      {
      printf(" element - %d : ",i+1);
      scanf("%d",&arr1[i]);
      }
   pt = arr1;
   for (i = 0; i < n; i++) {
      sum = sum + *pt;
      pt++;
   }
   printf(" The sum of array is : %d\n\n", sum);
}
```

Q6;

```c
int main()
{
    //Initialize array
    int arr[] = {1, 2, 3, 4, 5};
    int length = sizeof(arr)/sizeof(arr[0]);
    printf("Original array: \n");
    for (int i = 0; i < length; i++) {
        printf("%d ", arr[i]);
    }
    printf("\n");
    printf("Array in reverse order: \n");
    for (int i = length-1; i >= 0; i--) {
        printf("%d ", arr[i]);
    }
    return 0;
}
```

Q7.

```
#include <stdio.h>
int main()
{
   char str1[50];
    char revstr[50];
    char *stptr = str1;
    char *rvptr = revstr;
    int i=-1;
    printf("\n\n Pointer : Print a string in reverse order :\n");
    printf("------------------------------------------------\n");
    printf(" Input a string : ");
    scanf("%s",str1);
    while(*stptr){
     stptr++;
     i++;
    }
    while(i>=0)
    {
     stptr--;
     *rvptr = *stptr;
     rvptr++;
     --i;
    }
    *rvptr='\0';
    printf(" Reverse of the string is : %s\n\n",revstr);
    return 0;
}
```