

Q21.

```
#include<stdio.h>
```

```
#include<conio.h>
```

```
int string_ln(char*);
```

```
int main()
```

```
{
```

```
    char str[20];
```

```
    int length;
```

```
    printf("Enter any string :: ");
```

```
    scanf("%s",str);
```

```
    length = string_ln(str);
```

```
    printf("\nThe length of the given string [ %s ] is : %d\n", str, length);
```

```
    return 0;
```

```
}
```

```
int string_ln(char*p)
```

```
{
```

```
    int count = 0;
```

```
    while (*p != '\0') {
```

```
        count++;
```

```
        p++;
```

```
    }
```

```
    return count;
```

```
}
```



Q22.

```
#include <stdio.h>
#include <malloc.h>
int main(){
    int i, n, sum = 0;
    int *ptr;
    printf("Enter size of array :");
    scanf("%d", &n);
    ptr = (int *) malloc(n * sizeof(int));
    printf("Enter elements in the List");
    for (i = 0; i < n; i++){
        scanf("%d", ptr + i);
    }

    for (i = 0; i < n; i++){
        sum = sum + *(ptr + i);
    }
    printf("Sum of all elements in an array is = %d", sum);
    return 0;
}
```

Q23.

```
#include<stdio.h>
```

```
int func(int);
```



```
int main()
{
int no, square;

printf("\n Enter an no : ");
scanf("%d",&no);

square = func(no);

printf("\n Square of no is : %d ", square);
}

int func(int temp)
{
return temp*temp;
}
```

Q24.

```
#include <stdio.h>
int isEven(int num)
{
    return !(num & 1);
}
int main()
{
```



```
int num;

/* Input number from user */
printf("Enter any number: ");
scanf("%d", &num);
if(isEven(num))
{
    printf("The number is even.");
}
else
{
    printf("The number is odd.");
}

return 0;
}
```

Q25.

```
#include<stdio.h>
#define MAX 100
```

```
int findMaxElem(int []);
int n;
```



```

int main()
{
    int arr1[MAX],mxelem,i;

    printf("\n\n Function : get largest element of an array :\n");
    printf("-----\n");

    printf(" Input the number of elements to be stored in the array :");
    scanf("%d",&n);

    printf(" Input %d elements in the array :\n",n);
    for(i=0;i<n;i++)
    {
        printf(" element - %d : ",i);
        scanf("%d",&arr1[i]);
    }
    mxelem=findMaxElem(arr1);

    printf(" The largest element in the array is : %d\n\n",mxelem);
    return 0;
}

int findMaxElem(int arr1[])
{
    int i=1,mxelem;
    mxelem=arr1[0];
    while(i < n)
    {

```



```
    if(mxelem<arr1[i])
        mxelem=arr1[i];
    i++;
}
return mxelem;
}
```

Q27.

```
#include <stdio.h>
```

```
struct student
```

```
{
```

```
    char name[50];
```

```
    int roll;
```

```
    float marks;
```

```
};
```

```
int main()
```

```
{
```

```
    struct student s;
```

```
printf("Enter The Information of Students :\n\n");
```

```
printf("Enter Name : ");
```

```
scanf("%s",s.name);
```



```
printf("Enter Roll No. : ");  
scanf("%d",&s.roll);  
  
printf("Enter marks : ");  
scanf("%f",&s.marks);  
  
printf("\nDisplaying Information\n");  
  
printf("Name: %s\n",s.name);  
printf("Roll: %d\n",s.roll);  
printf("Marks: %.2f\n",s.marks);  
return 0;  
}
```

Q28.

```
#include <stdio.h>
```

```
struct student{  
    char  name[30];  
    int   roll;  
    float perc;  
};
```

```
int main()
```



```

{
    struct student std;
    struct student *ptr;

    ptr= &std;

    printf("Enter details of student: ");
    printf("\nName :");    gets(ptr->name);
    printf("Roll No :");    scanf("%d",&ptr->roll);
    printf("Percentage :");    scanf("%f",&ptr->perc);

    printf("\nEntered details: ");
    printf("\nName:%s \nRollNo: %d \nPercentage: %.02f\n",ptr
->name,ptr->roll,ptr->perc);

    return 0;
}

```

Q29.

```
#include<stdio.h>
```

```
#include<string.h>
```

```
#define SIZE 20
```

```
struct bookdetail
```

```

{
    char name[20];
    char author[20];

```




```
    int pages;
    float price;

};

void output(struct bookdetail v[],int n);

int main()
{
    struct bookdetail b[SIZE];

    int num,i;
    printf("Enter the Numbers of Books:");
    scanf("%d",&num);
    printf("\n");
    for(i=0;i<num;i++)

    {

        printf("\t:Book %d Detail:=\n",i+1);

        printf("\nEnter the Book Name:\n");
        scanf("%s",b[i].name);

        printf("Enter the Author of Book:\n");
        scanf("%s",b[i].author);
```



```
        printf("Enter the Pages of Book:\n");
        scanf("%d",&b[i].pages);

        printf("Enter the Price of Book:\n");
        scanf("%f",&b[i].price);

    }

    output(b,num);

}

void output(struct bookdetail v[],int n)

{

    int i,t=1;

    for(i=0;i<n;i++,t++)

    {

        printf("\n");

        printf("Book No.%d\n",t);
```



```
printf("\t\tBook %d Name is=%s \n",t,v[i].name);

printf("\t\tBook %d Author is=%s \n",t,v[i].author);

printf("\t\tBook %d Pages is=%d \n",t,v[i].pages);

printf("\t\tBook %d Price is=%f \n",t,v[i].price);

printf("\n");

}

}
```

Q30.

```
#include <stdio.h>
```

```
struct student
```

```
{
    char name [30];
    int marks[ 5];
    int total;
    float percentage;
```



```
};
```

```
int main()
```

```
{
```

```
    struct student std;
```

```
    int i;
```

```
    printf("Enter name: ");
```

```
    gets(std.name);
```

```
    printf("Enter marks:\n");
```

```
    std.total=0;
```

```
    for(i=0;i< 5;i++){
```

```
        printf("Marks in subject %d: ",i+1);
```

```
        scanf("%d",&std.marks[i]);
```

```
        std.total+=std.marks[i];
```

```
    }
```

```
    std.percentage=(float)((float)std.total/(float)500)*100;
```

```
    printf("\nName: %s \nTotal Marks: %d \nPercentage:  
%.2f",std.name,std.total,std.percentage);
```

```
    return 0;
```

```
}
```

