### Q-1.

```
□ D:\JAY\assi8\q1.exe
                               ×
enter value of a,b,c,d,k,x
2 2 2 2 2 2
F(x)=0
Process exited after 16.2 seconds with
Press any key to continue . . .
#include <stdio.h>
int main(){
     int a,b,c,d,k,x;
     printf("enter value of a,b,c,d,k,x \n");
     scanf("%d %d %d %d %d %d",&a,&b,&c,&d,&k,&x);
     if(x>k){}
           int f=a*x*x*x-b*x*x+c*x-d;
           printf("F(x)=%d",f);
     }
     else if(x==k){
           printf("F(x)=0");
     }
     else{
           int f=-a*x*x*x+b*x*x-c*x+d;
           printf("F(x)=%d",f);
```

```
}
return 0;
}
```

# Q-2.

```
#include <stdio.h>
int main(){
    int n;
    printf("enter marks\n");
    scanf("%d",&n);
    if(n<0 || n>100){
        printf("invalid input ");
    }
    else if(n>=80){
        printf("Dinstinction");
    }
}
```

# Q-3.

```
#include <stdio.h>
int main(){
    int inc;
    int tax;
    printf("enter income : ");
    scanf("%d",&inc);
```

```
if(inc>=250000&&inc<=500000){
            tax = inc*5/100;
      }
      else if(inc>500000 && inc<=1000000){
            tax = 250000*5/100+(inc-500000)*20/100;
      }
      else if(inc>=1000000){
            tax = 250000*5/100 + 500000*20/100 + (inc-1000000)*30/100;
      }
      else{
            printf("no tax applicable");
            tax=0;
      }
      printf("total tax is : %d",tax);
      return 0;
}
```

#include <stdio.h>

```
int main() {
  int totalAmount, discount = 0.0, finalAmount;
  printf("Enter the total shopping amount: ");
  scanf("%d", &totalAmount);
  if (totalAmount >= 100 && totalAmount <= 200) {
    discount = totalAmount * 0.05;
  } else if (totalAmount > 200 && totalAmount <= 400) {
    discount = totalAmount * 0.10;
  } else if (totalAmount > 400 && totalAmount <= 800) {
    discount = totalAmount * 0.20;
  } else if (totalAmount > 800) {
    discount = totalAmount * 0.25;
  }
  finalAmount = totalAmount - discount;
```

```
printf("The discount amount is: %d\n", discount);
printf("The final amount to be paid is: %d\n", finalAmount);
return 0;
}
```

#### Q-5.

```
#include <stdio.h>
int main(){
    int amount;
    printf("enter amount of policy sold : ");
    scanf("%d",&amount);
    int commission;
    if (amount <= 10000)
    { commission = amount * 0.005;
    }
    else if (amount > 10000 && amount < 25000)
    {
        commission = 50 + (amount - 10000) * 0.006;
    }
}</pre>
```

```
}
else {
  commission = 140 + (amount - 25000) * 0.0075;
}
printf("commission is %d",commission);
return 0;
}
```

### Q-6.

```
#include <stdio.h>
int main(){

int arr1[5]={5,3,6,7,8};

int arr2[5]={2,9,4,11,10};

int arr3[10];

float median;

for(int i=0;i<10;i++){

    if(i<5){

        arr3[i]=arr1[i];
    }
```

```
else{
             arr3[i]=arr2[i-5];
      }
}
int n=10;
int count=0;
while(count<=n){
      for(int j=0;j<n-1;j++){
             if(arr3[j]>arr3[j+1]){
                   int temp=arr3[j];
                   arr3[j]=arr3[j+1];
                   arr3[j+1]=temp;
             }
      }
      count++;
}
for(int k=0;k<10;k++){
      printf("%d ",arr3[k]);
}
if(n%2==0){
      median = arr3[(n/2)-1]+arr3[(n/2)];
}
else{
      median = arr3[n/2];
}
```

```
printf("median is : %.2f",median);
return 0;
}
```

### Q-7.

```
}
}

printf("\nArray after : ");

for(int i=0;i<j+1;i++){
    printf("%d ",arr[i]);
}

return 0;
}</pre>
```

# Q-8.

```
#include <stdio.h>
int com(int n,int m){
    if(n==0 | | m==0){
```

```
return 1;
      }
      if(m==n){
             return 1;
      }
      int p=1;
      for(int i=1;i<=n;i++){
             p*=i;
      }
      int q=1;
      for(int i=1;i<=m;i++){
             q*=i;
      }
      int t=1;
      for(int i=1;i<=(n-m);i++){
             t*=i;
      }
      return p/(t*q);
}
int main(){
      int r;
      com(3,1);
      printf("Enter no. of rows :");
```

```
scanf("%d",&r);
for(int i=0;i<r;i++){
    for(int j=0;j<r-i-1;j++){
        printf(" ");
    }
    for(int k=0;k<=i;k++){
        printf("%d ",com(i,k));
    }
    printf("\n");
}
return 0;
}</pre>
```