Q1

CODE

```
#include<iostream>
#include<cstdlib>
#include<math.h>
using namespace std;

float area(float a)
{
    return(a*a);
}
float area(float a,float b,float c)
{
    float s;
    s=(a+b+c)/2;
    return(sqrt(s*(s-a)*(s-b)*(s-c)));
}
float area(float l,float b)
{
    return (l * b);
}
int main()
{
    float a,b,c,l;
    int ch;

    do
    {
        cout<<"\n\n ___Menu___ \n";
        cout<<"\n 1. Area of Square";
        cout<<"\n 2. Area of Triangle";
        cout<<"\n 3. Area of Rectangle";
        cout<<"\n 4. Exit";
        cout<<"\n\n Enter Your Choice no : ";
        cin>>ch;
        switch(ch)
        {
            case 1:
            {
                cout<<"\n Enter the length of Square : ";
                cin>>a;
                cout<<"\n Area of Square : "<<area(a);
                break;
            }
            case 2:
            {
                cout<<"\n Enter the lenth of 3 sides of the Triangle : ";
```

```
                cin>>a>>b>>c;
                cout<<"\n Area of Triangle : "<<area(a,b,c);
                break;
            }
            case 3:
            {
                cout<<"\n Enter the Length & Bredth of Rectangle : ";
                cin>>l>>b;
                cout<<"\n Area of Rectangle : "<<area(l,b);
                break;
            }
            case 4:
                exit(0);
            default:
                cout<<"\n Invalid Choice!!!.. ";
        }
    }while(ch!=4);
    return 0;
}
```

OUTPUT

```
PS D:\C++> cd "d:\C++\" ; if ($?) { g++ test.cpp -o test } ; if ($?) { .\test }


 ___Menu___

 1. Area of Square
 2. Area of Triangle
 3. Area of Rectangle
 4. Exit

 Enter Your Choice no : 2

 Enter the lenth of 3 sides of the Triangle : 8 5 4

 Area of Triangle : 8.18153

 ___Menu___

 1. Area of Square
 2. Area of Triangle
 3. Area of Rectangle
 4. Exit

 Enter Your Choice no :
```

Q2

CODE

```
#include<iostream>
using namespace std;
class Travel{
    private:
        string T_Code;
        int No_of_Adults,No_of_Children,Distance;
        float TotalFare;
    public:
        Travel(){
            T_Code = "NULL";
            No_of_Adults = 0;
            No_of_Children = 0;
            Distance = 0;
            TotalFare = 0;
        }
        float Assignfare(){
            if (Distance>=1000)
                TotalFare=(No_of_Adults*500) + (No_of_Children*250);
            else if(Distance<1000 && Distance>=500)
                TotalFare=(No_of_Adults*300) + (No_of_Children*150);
            else
                TotalFare=(No_of_Adults*200) + (No_of_Children*100);
        }
        float EnterTravel(){
            cout<<"enter the travel code: ";
            cin>>T_Code;
            cout<<"enter the no. of adults: ";
            cin>>No_of_Adults;
            cout<<"enter the no. of childrens: ";
            cin>>No_of_Children;
            cout<<"enter the distance in km: ";
            cin>>Distance;
            Assignfare();
        }

        float ShowTravel(){
            cout<<"Total fare of the travel is "<<TotalFare;


        }

};
int main(){
    Travel obj;
    obj.EnterTravel();
```

```
    obj.ShowTravel();
    return 0;
}
```

OUTPUT

```
PS D:\C++> cd "d:\C++\" ; if ($?) { g++ classtravel.cpp -o classtravel } ; if ($?) { .\classtravel }
enter the travel code: ALAN
enter the no. of adults: 3
enter the no. of childrens: 2
enter the distance in km: 1000
Total fare of the travel is 2000
PS D:\C++>
```