

Question number 1

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
struct S_R{
```

```
    int ID,Phone_number;
```

```
    string Name,Department,Email;
```

```
};
```

```
int main()
```

```
{
```

```
    S_R s[5];
```

```
    cout<<"\n\tINPUTS\n";
```

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

```
        cout<<"Enter the Id of student "<<i+1<<" : ";
```

```
        cin>>s[i].ID;
```

```
        cout<<"Enter the Name of student "<<i+1<<" : ";
```

```
        cin>>s[i].Name;
```

```
        cout<<"Enter the Department of student "<<i+1<<" : ";
```

```
        cin>>s[i].Department;
```

```
        cout<<"Enter the Email of student "<<i+1<<" : ";
```

```
        cin>>s[i].Email;
```

```
        cout<<"Enter the Phone_number of student "<<i+1<<" : ";
```

```
        cin>>s[i].Phone_number;
```

```
        cout<<endl;
        cin.ignore();
    }
```

```
cout<<"\n\tOUTPUTS\n";
for(int i=0 ; i<5 ; i++){
```

```
    cout<<"ID of Student "<<i+1<<" is : "<<s[i].ID<<endl;
    cout<<"Name of Student "<<i+1<<" is : "<<s[i].Name<<endl;
    cout<<"Department of Student "<<i+1<<" is : "<<s[i].Department<<endl;
    cout<<"Email of Student "<<i+1<<" is : "<<s[i].Email<<endl;
    cout<<"Name of Phone_number "<<i+1<<" is : "<<s[i].Phone_number<<endl;
}
```

```
return 0;
}
```

INPUTS

Enter the Id of student 1 : 12
Enter the Name of student 1 : A
Enter the Department of student 1 : CS
Enter the Email of student 1 : ABC@123
Enter the Phone_number of student 1 : 0345

Enter the Id of student 2 : 13
Enter the Name of student 2 : B
Enter the Department of student 2 : CS
Enter the Email of student 2 : ABC@234
Enter the Phone_number of student 2 : 0344

Enter the Id of student 3 : 14
Enter the Name of student 3 : C
Enter the Department of student 3 : CS
Enter the Email of student 3 : ABC@233
Enter the Phone_number of student 3 : 0343

Enter the Id of student 4 : 15
Enter the Name of student 4 : D
Enter the Department of student 4 : CS
Enter the Email of student 4 : ABC@232
Enter the Phone_number of student 4 : 0342

Enter the Id of student 5 : 16
Enter the Name of student 5 : E
Enter the Department of student 5 : CS
Enter the Email of student 5 : ABC231
Enter the Phone_number of student 5 : 0341

OUTPUTS

```
ID of Student 1 is : 12
Name of Student 1 is : A
Department of Student 1 is : CS
Email of Student 1 is : ABC@123
Name of Phone_number 1 is : 345
ID of Student 2 is : 13
Name of Student 2 is : B
Department of Student 2 is : CS
Email of Student 2 is : ABC@234
Name of Phone_number 2 is : 344
ID of Student 3 is : 14
Name of Student 3 is : C
Department of Student 3 is : CS
Email of Student 3 is : ABC@233
Name of Phone_number 3 is : 343
ID of Student 4 is : 15
Name of Student 4 is : D
Department of Student 4 is : CS
Email of Student 4 is : ABC@232
Name of Phone_number 4 is : 342
ID of Student 5 is : 16
Name of Student 5 is : E
Department of Student 5 is : CS
Email of Student 5 is : ABC231
Name of Phone_number 5 is : 341
```

Question number 2

```
#include <iostream>
```

```
using namespace std;
```

```
struct Product_rec{
```

```
    string product_name;
```

```
    int product_model_number;
```

```
    double product_price;
```

```
};
```

```
void product_output (Product_rec []);
```

```
int main()
```

```
{
```

```
    Product_rec pro[10];
```

```
    cout<<"\n\tInputs\n";
```

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

```
        cout<<"Enter the product_name "<<i+1<<" : ";
```

```
        cin>>pro[i].product_name;
```

```
        cout<<"Enter the product_model_number "<<i+1<<" : ";
```

```
        cin>>pro[i].product_model_number;
```

```
        cout<<"Enter the product_price "<<i+1<<" : ";
```

```
        cin>>pro[i].product_price;
```

```
        cout<<endl;
```

```
    }
```

```
    product_output(pro);
```

```
    return 0;
```

```
}
```

```
void product_output (Product_rec pro[]){
```

```
    cout<<"\n\tOutputs\n";
```

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

```
        cout<<"Product_name "<<i+1<<" : "<<pro[i].product_name<<endl;

        cout<<"Product_model_number "<<i+1<<" :
"<<pro[i].product_model_number<<endl;

        cout<<"Product_price "<<i+1<<" : "<<pro[i].product_price<<endl;

    }

}
```

D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 2.exe

Inputs

```
Enter the product_name 1 : Milk
Enter the product_model_number 1 : 12
Enter the product_price 1 : 230

Enter the product_name 2 : Eggs
Enter the product_model_number 2 : 13
Enter the product_price 2 : 180

Enter the product_name 3 : cooking_oil
Enter the product_model_number 3 : 14
Enter the product_price 3 : 5000

Enter the product_name 4 : Bread
Enter the product_model_number 4 : 15
Enter the product_price 4 : 130

Enter the product_name 5 : Sugar
Enter the product_model_number 5 : 16
Enter the product_price 5 : 120
```

```
Enter the product_name 6 : Tea
Enter the product_model_number 6 : 17
Enter the product_price 6 : 450

Enter the product_name 7 : Chicken
Enter the product_model_number 7 : 18
Enter the product_price 7 : 500

Enter the product_name 8 : Mutton
Enter the product_model_number 8 : 19
Enter the product_price 8 : 1200

Enter the product_name 9 : Beef
Enter the product_model_number 9 : 20
Enter the product_price 9 : 900

Enter the product_name 10 : Fish
Enter the product_model_number 10 : 21
Enter the product_price 10 : 850
```

Outputs

```
Product_name 1 : Milk
Product_model_number 1 : 12
Product_price 1 : 230
Product_name 2 : Eggs
Product_model_number 2 : 13
Product_price 2 : 180
Product_name 3 : cooking_oil
Product_model_number 3 : 14
Product_price 3 : 5000
Product_name 4 : Bread
Product_model_number 4 : 15
Product_price 4 : 130
Product_name 5 : Sugar
Product_model_number 5 : 16
Product_price 5 : 120
```



```
Product_name 6 : Tea
Product_model_number 6 : 17
Product_price 6 : 450
Product_name 7 : Chicken
Product_model_number 7 : 18
Product_price 7 : 500
Product_name 8 : Mutton
Product_model_number 8 : 19
Product_price 8 : 1200
Product_name 9 : Beef
Product_model_number 9 : 20
Product_price 9 : 900
Product_name 10 : Fish
Product_model_number 10 : 21
Product_price 10 : 850
```

Question number 3

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
    struct Employee {
```

```
        int Employee_Number;
```

```
        string Employee_Name;
```

```
        double Employee_Basic_Salary;
```

```
        double Employee_House_Allowance;

        double Employee_Medical_Allowance;

        double Employee_Tax;

        double Employee_Gross_Pay;

        double Employee_Net_Salary;

};
```

```
Employee empSalary(Employee);

void dispaly (Employee);
```

```
int main(){

    Employee eP , eP_All_Details;


    cout<<"Enter_Employee_Number: ";
    cin>>eP.Employee_Number;
    cout<<"Enter_Employee_Name: ";
    cin>>eP.Employee_Name;
    cout<<"Enter_Employee_Basic_Salary: ";
    cin>>eP.Employee_Basic_Salary;
    eP_All_Details=empSalary(eP);
    dispaly (eP_All_Details);


    return 0;

}
```

```
Employee empSalary(Employee eP){

    eP.Employee_House_Allowance=(eP.Employee_Basic_Salary*10)/100;
    eP.Employee_Medical_Allowance=(eP.Employee_Basic_Salary*5)/100;
    eP.Employee_Tax=(eP.Employee_Basic_Salary*4)/100;
```

```
        eP.Employee_Gross_Pay=eP.Employee_Basic_Salary+eP.Employee_House_Allowance+eP.Employee_Medical_Allowance;
```

```
        eP.Employee_Net_Salary=eP.Employee_Gross_Pay-eP.Employee_Tax;
```

```
        return eP;
```

```
    }
```

```
void dispaly (Employee eP_All_Details){
```

```
    cout<<endl<<endl<<"*****";
```

```
        cout<<"\n\n\t\t EMPLOYERS SALARY DETAILS ";
```

```
    cout<<endl<<endl<<"*****";
```

```
        cout<<endl<<endl<<"Employee Number: "<<eP_All_Details.Employee_Number;
```

```
        cout<<endl<<"Employee Name: "<<eP_All_Details.Employee_Name;
```

```
        cout<<endl<<"Basic Salary: "<<eP_All_Details.Employee_Basic_Salary;
```

```
        cout<<endl<<"House Allowance: "<<eP_All_Details.Employee_House_Allowance;
```

```
        cout<<endl<<"Medical Allowance: "<<eP_All_Details.Employee_Medical_Allowance;
```

```
        cout<<endl<<"Gross Salary: "<<eP_All_Details.Employee_Gross_Pay;
```

```
        cout<<endl<<"Tax Deduction: "<<eP_All_Details.Employee_Tax;
```

```
        cout<<endl<<"Net Salary: "<<eP_All_Details.Employee_Net_Salary;
```

```
    }
```

```
D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 3.exe
Enter_Employee_Number:  1
Enter_Employee_Name:    A
Enter_Employee_Basic_Salary:  30000

*****

EMPLOYERS SALARY DETAILS

*****

Employee Number: 1
Employee Name: A
Basic Salary: 30000
House Allowence: 3000
Medical Allowence: 1500
Gross Salary: 34500
Tax Deduction: 1200
Net Salary: 33300
-----
Process exited after 15.18 seconds with return value 0
Press any key to continue . . .
```

Question number 4

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
struct Student {
    string name;
    int id;
    int mark[3];
};
```

```
void inputStudent(Student* ptr);  
void OutputStudent(Student*ptr);
```

```
int main () {  
    Student stu;  
    Student* stuPtr = &stu;  
    inputStudent(&stu);  
    OutputStudent(stuPtr);  
}
```

```
void inputStudent(Student* ptr){  
    cout<<"Enter the Name of Student : ";  
    cin>>ptr->name;  
    cout<<"Enter the ID of Student : ";  
    cin>>ptr->id;  
  
    for(int i=0 ; i<3 ; i++){  
        cout<<"Enter Marks"<<i+1<<" here : ";  
        cin>>ptr->mark[i];  
    }  
}
```

```
void OutputStudent(Student* ptr){  
    cout<<endl<<endl;  
    cout<<"\tName of the Student is : "<<ptr->name;  
    cout<<endl;  
    cout<<"\tName of the Id is : "<<ptr->id;  
    cout<<endl;
```

```

        for(int i=0 ; i<3 ; i++){
            cout<<"\tMarks "<<i+1<<" is : "<<ptr->mark[i]<<endl;
        }
    }
}

```

```

D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 4.exe
Enter the Name of Student : A
Enter the ID of Student : 12
Enter Marks1 here : 88
Enter Marks2 here : 88
Enter Marks3 here : 88

      Name of the Student is : A
      Name of the Id is : 12
      Marks 1 is : 88
      Marks 2 is : 88
      Marks 3 is : 88

-----
Process exited after 12.49 seconds with return value 0
Press any key to continue . . .

```

Question number 5

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```

struct Student {
    string name;
    int id;
    int *mark;
}

```

```
};
```

```
void inputStudent(Student* ptr,int);
```

```
void OutputStudent(Student*ptr,int);
```

```
int main () {
```

```
    int num_marks;
```

```
    cout<<"HEY BUDDY HOW MUCH OF SUBJECTS MARK DO YOU WANT : ";
```

```
    cin>>num_marks;
```

```
    Student stu;
```

```
    Student* stuPtr = &stu;
```

```
    inputStudent(&stu,num_marks);
```

```
    OutputStudent(stuPtr,num_marks);
```

```
    return 0;
```

```
}
```

```
void inputStudent(Student* ptr,int num_marks){
```

```
    cout<<"\n\t\tINPUTS\n\n";
```

```
    cout<<"Enter the name of Student here : ";
```

```
    cin.ignore();
```

```
    getline(cin, ptr->name);
```

```
    cout<<"Enter the Id here : ";
```

```
    cin>>ptr->id;
```

```
    ptr->mark = new int[num_marks];
```

```
    for(int i=0; i<num_marks; i++)
```

```
    {
```

```
        cout<<"Enter mark "<<i+1<<" : ";
```

```
        cin>>ptr->mark[i];  
        cout<<endl;  
    }  
}
```

```
void OutputStudent(Student*ptr,int){  
    cout<<"\n\t\tOUTPUTS\n\n";  
    cout<<"\tName of the Student is : "<<ptr->name;  
    cout<<endl;  
    cout<<"\tName of the Id is : "<<ptr->id;  
    cout<<endl;  
  
    for(int i=0 ; i<3 ; i++){  
        cout<<"\tMarks "<<i+1<<" is : "<<ptr->mark[i]<<endl;  
    }  
}
```


D:\1st Semester ALL\1st sm Programing fundamentals\Lab-11 p.f\Question number 5.exe

HEY BUDDY HOW MUCH OF SUBJECTS MARK DO YOU WANT : 6

INPUTS

Enter the name of Student here : A

Enter the Id here : 12

Enter mark 1 : 88

Enter mark 2 : 88

Enter mark 3 : 88

Enter mark 4 : 88

Enter mark 5 : 88

Enter mark 6 : 88

OUTPUTS

Name of the Student is : A

Name of the Id is : 12

Marks 1 is : 88

Marks 2 is : 88

Marks 3 is : 88