Lab Sheet -11

1. Type and run the following program:

```
#include<stdio.h>
    int main()
    {
    struct date
    {
    int dd,mm,yy;
    };
        struct stud
    {
    int roll;
    char name[10];
    struct date d1;
    } ;
    struct stud s1 ={100,"abc",1,2,3};
    struct stud s2;
    s2 = s1;
    printf("%d",s1.roll);

    printf("%s",s1.name);

    printf("%d",s1.d1.dd);

    printf("%d",s1.d1.mm);

    printf("%d",s1.d1.yy);

    }
```

Explain the working of the above code.

2. A structure can also be declared and used as following. Compile and execute the code :

```
#include<stdio.h>
int main()
{
struct
{
int roll;
char name[10];
}s1[10];
int i;
printf("enter the details");
for(i=0;i<3;i++)
{
printf("roll?");
```

```
scanf("%d",&s1[i].roll);
printf("name?");
scanf("%s",s1[i].name);
}
printf("entered details");
for(i=0;i<3;i++)
{
printf("roll");
printf("%d",s1[i].roll);
printf("name");
printf("%s",s1[i].name);
}
}
```

3. Write a program to pass structure member variables as arguments of function

```
#include<stdio.h>
typedef struct
{
int x,y;
}point;
void display(int a,int b)
{
printf("point x=%d, y=%d",a,b);
}
int main()
{
point p = {12,23};
display(p.x,p.y);
return 0;
}
```

4. Write a program to pass structure variables as arguments

```
#include<stdio.h>
typedef struct
{
int x,y;
} point;
    void display(point p)
    {
    printf("point x=%d,y=%d",p.x,p.y);
    }
int main()
    {
    point p = {12,23};
    display(p);
    return 0;
    }
```

2. Define a structure **Student** with members **roll no**, **name** and **average_mark**.
   a) Re-define the structure name with Stud.
   b) Create a variable Std of type Stud.
   c) Read values for the members of Std
   d) Print all the details.

3. Define a structure **Book** with members **book_id**, **book_title**, **author**, **price**.
   a) Define a variable of type Book.
   b) Using a read( ) , store details of the book.
   c) Using a call-by-value function print( ), print the book details.

4. Define a structure **Bank** with members **account_no, name, type_account(Savings/Current), balance**.
   a) Store 5 customer details [Use structure array].
   b) Using a function search ( ) that takes structure array as argument and account_no, search if that account_no exist or not. If so print the details.
   c) Using another function sort_balance ( ), sort the structure array on the basis of balance and print the details.

5. Define a structure **Employee** with members **empno, emp_name, position(Manager(M),Supervisor(S),Ordinary(O)), basic_pay**.
   a) Read a value **n** from the user and store **n** number of employee details.
   b)Use function **Read**( ) to read the employee details.
   c) Use function **Display**( ) print the employee details.
   d) Use a function **Search**( ) which should give user a varieties of choices on the basis of which will display the employee details. i.e, empno or emp_name or position or basic pay. If **position** is selected all the employees belonging to that category should be displayed. If **basic pay** is selected all the employees within that basic pay should be displayed.

6. Define a structure **Date_Admit** with the **day**, **month** and **year** as members.
   Define another structure **Patient** with members **ipno, name, dateofadmit** which is of type Date_Admit structure.
   (a) Store n patient details.
   (b) Using a function **detail**( ) show all the patient details admitted within a period of time as per users input. [*Ex: 04 01 2013 and 01 11 2013. If the user inputs date print the patient details admitted in between these periods.*]