1. **Write and execute C program to read marks of 3 students and 3 subjects using a structure ,calculate the total marks scored, student wise , subject wise and store them as part of the defined structure . Display using arrays of structures in the program.**

#include<stdio.h>

struct student

{

char name[10];

int rollno;

int subject[3],total;

};

main ( )

{

static struct student s[10];

int n,i,j;

//clrscr();

printf("Enter the Marks of 3 Subjects: ");

for(i=0; i<3; i++)

{

printf("\nEnter student[%d] student marks",i);

s[i].total=0;

for(j=0; j<3; j++)

{

scanf("%d",&s[i].subject[j]);

s[i].total=s[i].total+s[i].subject[j];

}

printf("\nTotal marks scored=%d\n",s[i].total);

}

}

1. **Write and execute a c program to declare structure time that has three fields hr,min,sec. Create 2 variables start\_time and end\_time. Input the values from user. Then while start\_time reaches the end\_time display GOOD DAY on the screen.**

#include <stdio.h>

struct time

{

int hr, min, sec;

};

Void main ()

{

struct time start\_time, end\_time;

printf ("Enter the start time in hours, minutes and seconds\n");

scanf ("%d%d%d", &start\_time.hr, &start\_time.min, &start\_time.sec);

printf ("Enter the end time in hours, minutes and seconds\n");

scanf ("%d%d%d", &end\_time.hr, &end\_time.min, &end\_time.sec);

while (!((start\_time.hr == end\_time.hr) && (start\_time.min == end\_time.min)&& (start\_time.sec == end\_time.sec)))

{ printf ("Time is %dhour %dminutes %dseconds \n",start\_time.hr,start\_time.min,start\_time.sec); if (start\_time.sec == 60)

{

start\_time.min++;

start\_time.sec = 0;

}

if (start\_time.min == 60)

{ start\_time.hr++;

start\_time.min = 0;

}

start\_time.sec++;

}

printf ("Good Day\n");

}

1. **Write and execute a C program to an array of elements and compute sum of all elements stored in an array using pointers and display the result.**

#include<stdio.h>

void main()

{

int num[10];

int i, sum = 0,n;

int \*ptr;

printf("\nEnter size of an array: ");

scanf("%d",&n);

printf("Enter array elements\n");

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

scanf("%d", &num[i]);

ptr = num; /\* a=&a[0] \*/

for (i = 0; i < n; i++) {

sum = sum + \*ptr;

ptr++;

}

printf("The sum of array elements : %d", sum);

}

1. **Write and execute a C program to swap two numbers using pointers and display the result.**

#include <stdio.h>

void swap(int\*, int\*);

int main()  
{  
int x, y;

printf("Enter the value of x and y\n");  
scanf("%d%d",&x,&y);

printf("Before Swapping\nx = %d\ny = %d\n", x, y);

swap(&x, &y);

printf("After Swapping\nx = %d\ny = %d\n", x, y);

return 0;  
}  
  
void swap(int \*a, int \*b)  
{  
int t;

t = \*b;  
\*b = \*a;  
\*a = t;  
}