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**Practical – 9: Program to implement pointer**

**1. Write a C program to create, initialize and use pointers.**

#include<stdio.h>

void main()

{

int \*p,x;

p=&x;

printf("Enter a number:");

scanf("%d",&x);

printf("%d", \*p+30);

}

**2. Write a program to implement the function interchange to swap the values of two variables (call by reference).**

#include<stdio.h>

#include<conio.h>

void main()

{

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

int x,y;

printf("Enter two values\n");

scanf("%d %d",&x,&y);

printf("Before swap %d %d",x,y);

swap(&x,&y);

printf("\nAfter swap is %d %d",x,y);

}

void swap(int \*p1,int \*p2)

{

\*p1=\*p1+\*p2;

\*p2=\*p1-\*p2;

\*p1=\*p1-\*p2;

}

**3. Write a C program to add two numbers using pointers.**

**#include<stdio.h>**

**#include<conio.h>**

**void input(int,int);**

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

**void main()**

**{**

**int x,y;**

**input(x,y);**

**}**

**void input(int p1,int p2)**

**{**

**printf("Enter two values\n");**

**scanf("%d %d",&p1,&p2);**

**add(&p1,&p2);**

**}**

**void add(int \*p1,int \*p2)**

**{**

**int r;**

**r=\*p1+\*p2;**

**printf("\nSum is %d",r);**

**}**

**4. Write a C program to input and print array elements using pointer.**

**#include<stdio.h>**

**#include<conio.h>**

**void main()**

**{**

**int \*p,i,a[10];**

**p=a;**

**printf("Enter elements\n");**

**for(i=0;i<10;i++)**

**{**

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

**}**

**for(i=0;i<10;i++)**

**{**

**printf("%d ",p[i]);**

**}**

**}**

**5. Write a C program to search an element in array using pointers.**

#include<stdio.h>

#include<conio.h>

void main()

{

int x[10],i,\*p;

int n;

p=&x[0];

printf("Enter 10 elements:\n");

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

{

scanf("%d",(p+i));

}

printf("Enter number you want to search\n");

scanf("%d",&n);

p=&x[0];

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

{

if(\*(p+i)==n)

break;

}

if(i==10)

{

printf("Element not found\n");

}

else{

printf("location=%d",i+1);

}getch();

}