Assignment VI

1. What is pointer and explain its applications. Write a program that uses pointer to copy an array of double.

Ans: Pointer is the variable that holds address of another variable of same data type.

The application of pointer are explained below:-

* Pointer allow C to support dynamic memory management.
* Pointer reduce length and complexity of the programs.
* Pointer are more efficient in handling arrays and data tables.
* They increase the execution speed and thus reduce the program execution time.
* Pointer can be used to return multiple value from a function via function arguments.
* The use of pointer arrays to character string results in saving of data storage space in memory.
* Pointer permit reference to functions and thereby facilitating passing of functions as arguments to other functions.
* Pointer provide an efficient tool for manipulating dynamic data structure such as structures, linked list, queues, stacks and trees.

**Program that uses pointer to copy an array of double.**

#include<stdio.h>

#include<conio.h>

1. Write a function that is passed with an array of n pointer which return the maximum.

Ans:- A program with a function that is passed with an array of n pointers which returns the maximum is given below:

#include<stdio.h>

int max(int \*parr, int n){

int i;

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

if (\*parr < \*(parr + i)){

\*parr = \*(parr+i);

}

}

return \*parr;

}

int main()

{

int n,i,maximum;

printf("How many numbers do you want ? :");

scanf("%d",&n);

int arr[n];

printf("Enter %d numbers : \n",n);

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

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

}

maximum = max(arr,n);

printf ("The MAXIMUM number you entered is %d",maximum);

return 0;

}

1. Justify that pointer is jewel in C language.Write a function that is passed an array of n pointers to float and returns a newly created array that contains those n float value in reverse order.Assume any necessary data.

Ans:- A pointer is a derived data type in C. Pointer are undoubtedly one of the most distinct and exciting features of C language . It has added power and flexibility to the language.

Pointer are more efficient in handling arrays and tables. Pointer can be used to support dynamic memory management .Pointer reduce length and complexity of programs.

It increases the execution speed and thus reduce the program execution time by following characters. So we conclude that the real power of C lies in a proper use of pointers.

Thus, pointer is jewel in C language.

***Program***

#include<stdio.h>

#include<conio.h>

Int main(){

1. Write a program that uses pointer to copy an array of the integer.