Part A:

1. Write a program to find the greatest of three numbers by using nested if statement.

/\*WAP to find the greatest of three numbers\*/

#include<stdio.h>

#include<conio.h>

void main()

{

int a,b,c;

clrscr();

printf("enter the value of a,b,c\n");

scanf("%d%d%d",&a,&b,&c);

if(a>b)

if(a>c)

printf("largest is %d\n",a);

else

printf("largest is %d\n",c);

else if(a>b)

printf("largest is %d\n",b);

else

printf("largest is %d\n",c);

getch();

}

Output:

enter the value of a, b, c 1 2 3

Largest is 3

2. Write a program to reverse a number and find the sum of individual digits. Also check for palindrome.

/\*write a program to reverse a number and find the sum of individual digits. also check the for palindrome\*/

#include<stdio.h>

#include<conio.h>

void main()

{

int num,rem,rev=0,sum=0,p;

clrscr();

printf("\n enter a number ");

scanf("%d",&num);

p=num;

while(num!=0)

{

rem=num%10;

rev=rev\*10 +rem;

sum=sum+rem;

num=num/10;

}

printf("\n after reversing:%d",rev);

printf("\n sum is %d",sum);

if(p==rev)

printf("\n is polindrome");

else

printf("\n is not polindrome");

getch();

}

Output:

1. Enter a number 4 6 4

After reversing 4 6 4

Sum is 14

Is palindrome

2. Enter a number 3 2 1

After reversing 1 2 3

Sum is 6

Is not palindrome

3. Write a program to generate Fibonacci numbers between two entered numbers.

/\*WAP to generate fibonacci numbers between to entered number\*/

#include<stdio.h>

#include<conio.h>

void main()

{

int ll,ul,f1=0,f2=1,f3;

clrscr();

printf("enter the lower limit \n");

scanf("%d",&ll);

printf("enter the upper limit \n");

scanf("%d",&ul);

printf("\n");

while(f1<=ul)

{

if(f1>=ll)

printf("%d\n",f1);

f3=f1+f2;

f1=f2;

f2=f3;

}

getch();

}

Output:

Enter the lower limit 0

Enter the upper limit 5

0

1

1

2

3

5

4. Write a program using switch statement to find the Professional Tax for an employee based on the gross salary at following rates:

Gross<20000: No tax, 20000 ≤ Gross< 30000: 3% 30000 ≤Gross < 50000: 5%, Gross≥ 50000: 8%

/\*write a program using switch statement to find the proffessional tax for an employee based on the gross salary at followig rates:

foss<20000:notax, 20000<=gross<30000:3%, 30000<=gross<50000:5%, gross>=50000:8%.\*/

#include<stdio.h>

#include<conio.h>

int main()

{

long int gross,ptax;

clrscr();

printf("\n enter the gross salary");

scanf("%ld",&gross);

switch(gross/10000)

{

case 0:

case 1:ptax=0;

break;

case 2:ptax=gross\*3/100;

break;

case 3:

case 4:ptax=gross\*5/100;

break;

default:ptax=gross\*8/100;

}

printf("\n proffessional tax is %ld",ptax);

getch();

return 0;

}

Output:

1.Enter the gross salary: 18000

Professional tax is: 0

2.Enter the gross salary: 30000

Professional tax is: 1500

5. Write a program to generate first n prime numbers.

#include<stdio.h>

#include<conio.h>

int main()

{

int n,i,j,prime,count=0;

clrscr();

printf("enter n :");

scanf("%d",&n);

printf("first %d prime numbers are:\t",n);

for(i=2;count<n;i++)

{

prime=1;

for(j=2;j<=i/2;j++)

if(i%j==0)

{

prime=0;

break;

}

if(prime==1)

{

printf("%d\t",i);

count++;

}

}

getch();

return 0;

}

Output:

Enter n : 5

First 5 prime number are: 2 3 5 7 11.

6. Write a program to find the largest and smallest elements with their position in a one-dimensional array.

/\*write a program to find the largest & smallest elements with their position in a one dimentional array\*/

#include<stdio.h>

#include<conio.h>

void main()

{

int i,n,large,small,l,s,a[25];

clrscr();

printf("\n enter the size of the array");

scanf("%d",&n);

printf("\n enter the elements of the array");

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

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

small=a[0];

large=a[0];

s=l=0;

for(i=1;i<n;i++)

{

if(small>a[i])

{

small=a[i];

s=i;

}

if (large<a[i])

{

large=a[i];

l=i;

}

}

printf("\n smallest element is %d & position is %d",small,s);

printf("\n largest element is %d & position is%d",large,l);

getch();

}

Output:

enter the size of the array 5

enter the elements of the array 1 2 3 4 5

smallest element is 1 & position is 0

largest element is 5 & position is 4