CS102.3: Programming in C Language

Mid Assignment: Viva Session

**Practical Number – 01**

#include<stdio.h>

int main ()

{

printf("wenupa mandinu\n");//display the name

printf("st johns college");//display the school

}

(2)

#include<stdio.h>

int main()

{

printf("\*\n");//display the \*

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

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

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

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

}

(3)

#include<stdio.h>

int main()

{

int x;

char name[10];

float z;

double y;

printf("Enter an integer\n");//input an integer

scanf("%d",&x);

printf("Enter a float\n");//input a float

scanf("%f",&z);

printf("Enter a double\n");

scanf("%lf",&y);

printf("Enter a character\n");//input a character

scanf("%s",&name);

printf("Integer you entered %d \n",x);//display the integer

printf("float you entered %f \n",z);//display the float

printf("double you entered %lf \n",y);//display the double

printf("character you entered %s \n",name);// display the character

}

(4)

#include<stdio.h>

int main()

{

int x,y;

printf("Enter the first number\n");// input the number

scanf("%d",x);

printf("Enter the second number\n");

scanf("%d",y);

printf("total value is %d \n",x+y);// total = x+y

return 0;

}

(5)

#include<stdio.h>

int main()

{

float x,y,tota,average ;

printf("Enter the first number\n");// enter number

scanf("%f",&x);

printf("Enter the second number\n");

scanf("%f",&y);

total=x+y;

average = total/2

printf("Total average is %.2f",average );//display the total

}

(6)

#include<stdio.h>

int main()

{

int birth\_year,age;

char name[10];

printf("Enter the student name\n");

scanf("%s",&name);

printf("Enter the birth\_year\n");

scanf("%d",&birth\_year);

age=2020-birth\_year;//calculate the age

printf("Student name is %s \n",name);

printf("student age is %d \n",age);//display the age

}

(7)

#include<stdio.h>

int main()

{

int x,y,a;

printf("Enter first number\n");

scanf("%d",&x);

printf("Enter the second number\n");

scanf("%d",&y);

a=x;

x=y;

y=a;

printf("After swap\n");

printf("first number is %d \n",x);//dipaly the number

printf("second number is %d \n",y);

}

(8)

#include<stdio.h>

main()

{

printf("The color: %s\n", "blue");

printf("First number: %d\n", 12345);

printf("Second number: %04d\n", 25);

printf("Third number: %i\n", 1234);

printf("Float number: %3.2f\n", 3.14159);

printf("Hexadecimal: %x\n", 255);

printf("Octal: %o\n", 255);

printf("Unsigned value: %u\n", 150);

printf("Just print the percentage sign %%\n", 10);

}

**Practical Number – 02**

(1)

#include<stdio.h>

int main()

{

int age;

printf("Hi,How old are you?");//enter the age

scanf("%d",&age);

printf("Welcome %d \n",age);//display the message and the age

printf("Let's Be Friends!");

return 0;

}

(2)

#include<stdio.h>

int main()

{

printf("%5d %5d %5d \n",2,4,8);//display the numbers with 5 spaces between the numbers

printf("%5d %5d %5d \n",3,9,27);

printf("%5d %5d %5d \n",4,16,64);

printf("%5d %5d %5d \n",5,25,125);

}

(3)

#include<stdio.h>

int main ()

{

float Avg\_speed,Distance,Time;

printf("Enter the distance travelled \n");

scanf("%.2f",&Distance);

printf("Enter the time taken \n");

scanf("%d",&Time);

Avg\_speed = Distance/Time;//calculate the average speed

printf("Average speed is %d",Avg\_speed);// display the average speed

return 0;

}

(4)

#include<stdio.h>

int main()

{

float f,c;//f= Fahrenheit , c = celsius

printf("Enter the value for a \n");

scanf("%f",&f);

c = 5\*(f-32)/9;//convert the Fahrenheit in Celsius

printf("Celsius value is %.2f \n",c);

return 0;

}

(5)

#include<stdio.h>

int main()

{

int i=5,j;

j=++i + ++i + ++i;

printf("%d %d",i,j);//j=21 , i=8

return 0;

}

(6)

#include<stdio.h>

int main()

{

int i=1;

i=2+2\*i++;

printf("%d",i);//i=4

return 0;

}

(7)

#include<stdio.h>

int main()

{

int a=5,b=5,c=8;

c=a==b;

printf("%d",c);//c=1

return 0;

}

(8)

#include<stdio.h>

int main()

{

int a=0,b=10;

if(a=0)

{

printf("true");//if a=0 display the message

}

else

{

printf("false");//if a is not equal to 0 display the message

}

return 0;

}

**Practical Number – 03**

(1)

#include<stdio.h>

int main ()

{

int num1, num2;

printf("Enter any 02 numbers ::: \n");//enter two numbers

scanf("%d %d",&num1, &num2);

if (num1>num2)

printf("number 01 (%d) is the highest number",num1);//if the number 1 the highest display the message

else

printf("number 02 (%d) is the highest number",num2);//else display this message

}

(2)

#include<stdio.h>

int main ()

{

int num1, num2, num3;

printf("Enter any 03 numbers.. \nI will show you the largest value.\n");

scanf("%d %d %d", &num1, &num2, &num3);

largest

if (num1>num2 && num1>num3)//check the conditions

printf("Number 01 (%d) is the largest value \n" , num1);//display the largest

if (num2>num1 && num2>num3) //check the conditions

printf("Number 02 (%d) is the largest value \n", num2);

if (num3>num1 && num3>num2) //check the conditions

printf("Number 03 (%d) is the largest value \n", num3);

smallest

if (num1<num2 && num1<num3) //check the conditions

printf("Number 01 (%d) is the smallest value \n", num1);

if (num2<num1 && num2<num3) //check the conditions

printf("Number 02 (%d) is the smallest value \n", num2);

if (num3<num1 && num3<num2) //check the conditions

printf("Number 03(%d) is the smallest value \n", num3);

}

(3)

#include<stdio.h>

int main()

{

char emp\_name[20];

float basic\_salary;

float increment;

float new\_salary;

printf("Enter your name : \n");

scanf("%s", &emp\_name);

printf("Enter your basic salary : \n");

scanf("%f", &basic\_salary);

if (basic\_salary < 5000) //check the conditions

{

increment = basic\_salary\*5/100;//calculate the increments

new\_salary = basic\_salary + increment;//calculate the new salary

printf("New salary:%.2f", new\_salary);// display the new salary

}

else if (basic\_salary >= 5000 && basic\_salary < 10000)

{

increment = basic\_salary\*10/100;

new\_salary = basic\_salary + increment;

printf("New salary:%.2f", new\_salary);

}

else if (basic\_salary >= 10000)

{

increment = basic\_salary\*15/100;

new\_salary = basic\_salary + increment;

printf("New salary:%.2f", new\_salary);

}

}

(4)

#include<stdio.h>

Int main()

{

float radius,area,diameter,circumference;

printf("Enter Radius : ");

scanf("%f",&radius);

area=(radius\*radius)\*3.14159;//calculate the area of the circle

diameter=2\*radius;//calculate the diameter of the circle

circumference=2\*3.14159\*radius; calculate the circumference of the circle

printf("Area = %.3f \n",area);

printf("Diameter = %.3f \n",diameter);

printf("Circumference = %.3f \n",circumference);

}

(5)

#include<stdio.h>

Int main()

{

int int1,int2;

printf("Enter two integers : " );

scanf("%d %d",&int1,&int2);

if (int1%int2==0)//if int1=9 int2=3 9%3=0

printf("The first is a multiple of the second.");

else

printf("The first is NOT a multiple of the second.");

}

(6)

#include<stdio.h>

Int main()

{

char ch;

scanf("%c",&ch);

int x;

scanf("%d",&x);

if (ch >= 'A' && ch <= 'Z') //check the conditions

printf("Character is Upper Case Letters\n");

else if (ch >= 'a' && ch <= 'z') //check the conditions

printf("Character is Not Upper Case Letters\n");

else

printf("symbol\n");

if(x>=0 && x<=9) //check the conditions

printf("Integer\n");

}

(7)

#include<stdio.h>

Int main()

{

char cha;

float basic\_sal,bonus,remuneration=0;

int service;

printf("Enter 'c' if you are working in Colombo. If not enter 'n' ");

scanf("%c",&cha);

printf("Enter your basic salary : ");

scanf("%f",&basic\_sal);

printf("Enter your service years : ");

scanf("%d",&service);

if(basic\_sal<25000) //check the conditions

bonus=basic\_sal\*10/100;//calculate the bonus

else if(basic\_sal<50000)

bonus=basic\_sal\*12/100;

else

bonus=basic\_sal\*15/100;

if(service>=5)

bonus=bonus+(basic\_sal\*10/100);//add more 10% if the service is more than 5 years

if(cha=='c')

bonus=bonus+2500;//add more 2500 rupees to the bonus if the salesman working in Colombo

remuneration=basic\_sal+bonus;//calculate the remuneration

printf("Remuneration = %f",remuneration);

}

Practical 4

Part A

Q1

#include <stdio.h>

int main() {

int num;

printf("Enter an integer: ");

scanf("%d", &num);

// True if num is perfectly divisible by 2

if(num % 2 == 0)

printf("%d is even.", num);

else

printf("%d is odd.", num);

return 0;

}

Q2

#include <stdio.h>

int main() {

char operator;

double first, second;

printf("Enter an operator (+, -, \*,): ");

scanf("%c", &operator);

printf("Enter two operands: ");

scanf("%lf %lf", &first, &second);

switch (operator) {

case '+':

printf("%.1lf + %.1lf = %.1lf", first, second, first + second);

break;

case '-':

printf("%.1lf - %.1lf = %.1lf", first, second, first - second);

break;

case '\*':

printf("%.1lf \* %.1lf = %.1lf", first, second, first \* second);

break;

case '/':

printf("%.1lf / %.1lf = %.1lf", first, second, first / second);

break;

// operator doesn't match any case constant

default:

printf("Error! operator is not correct");

}

return 0;

}

Q3

#include <stdio.h>

void main ()

{

int choice,r,l,w,b,h;

float area;

printf("Input 1 for area of circle\n");

printf("Input 2 for area of rectangle\n");

printf("Input 3 for area of triangle\n");

printf("Input your choice : ");

scanf("%d",&choice);

switch(choice)

{

case 1:

printf("Input radious of the circle : ");

scanf("%d",&r);

area=3.14\*r\*r;

break;

case 2:

printf("Input length and width of the rectangle : ");

scanf("%d%d",&l,&w);

area=l\*w;

break;

case 3:

printf("Input the base and hight of the triangle :");

scanf("%d%d",&b,&h);

area=.5\*b\*h;

break;

}

printf("The area is : %f\n",area);

}

Q4

#include <stdio.h>

int main()

{

char ch;

printf("Enter a character\n");

scanf("%c", &ch);

// Checking both lower and upper case, || is the OR operator

if (ch == 'a' || ch == 'A' || ch == 'e' || ch == 'E' || ch == 'i' || ch == 'I' || ch =='o' || ch=='O' || ch == 'u' || ch == 'U')

printf("%c is a vowel.\n", ch);

else

printf("%c isn't a vowel.\n", ch);

return 0;

}

Q5

#include<stdio.h>

int main()

{

int month;

printf("Enter month number");

scanf("%d",&month);

switch(month)

{

case 1:

printf("31 days");

break;

case 2:

printf("28/29 days");

break;

case 3:

printf("31 days");

break;

case 4:

printf("30 days");

break;

case 5:

printf("31 days");

break;

case 6:

printf("30 days");

break;

case 7:

printf("31days");

break;

case 8:

printf("31days");

break;

case 9:

printf("30days");

break;

case 10:

printf("31 days");

break;

case 11:

printf("30 days");

break;

case 12:

printf("30 days");

break;

default:

printf("Invalid input!Please enter month number between (1-12)");

}

return 0;

}

Part B

Section A

Q1

1. #include<stdio.h>

2. int main(){

3. int i;

4. //Print numbers from 1 to 100.

5. for(i = 1; i <= 100; i++){

6. printf("%d ",i);

7. }

8. return 0;

Q2

#include <stdio.h>

int main(void){

int num;

printf("Enter your mark ");

scanf("%d",&num);

printf(" You entered %d", num); // printing outputs

if(num >= 80){

printf(" You got A grade"); // printing outputs

}

else if ( num >=60){ // Note the space between else & if

printf(" You got B grade");

}

else if ( num >=40){

printf(" You got C grade");

}

else if ( num < 40){

printf(" You Failed in this exam");

}

return 0;

}

Q3

#include <stdio.h>

int main() {

int n, i;

unsigned long long fact = 1;

printf("Enter an integer: ");

scanf("%d", &n);

// shows error if the user enters a negative integer

if (n < 0)

printf("Error! Factorial of a negative number doesn't exist.");

else {

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

fact \*= i;

}

printf("Factorial of %d = %llu", n, fact);

}

return 0;

}

Q4

#include <stdio.h>

int main()

{

int num, sum=0;

/\* Input a number from user \*/

printf("Enter any number to find sum of its digit: ");

scanf("%d", &num);

/\* Repeat till num becomes 0 \*/

while(num!=0)

{

/\* Find last digit of num and add to sum \*/

sum += num % 10;

/\* Remove last digit from num \*/

num = num / 10;

}

printf("Sum of digits = %d", sum);

return 0;

}

Q5

1. -int main() { int n, r = 0;

2. printf("Enter a number to reverse\n"); scanf("%d", &n);

3. while (n != 0) { r = r \* 10; r = r + n%10; n = n/10; }

4. printf("Reverse of the number = %d\n", r);

Q6

#include <stdio.h>

int main() {

int base, exp;

long long result = 1;

printf("Enter a base number: ");

scanf("%d", &base);

printf("Enter an exponent: ");

scanf("%d", &exp);

while (exp != 0) {

result \*= base;

--exp;

}

printf("Answer = %lld", result);

return 0;

}

Q7

#include <stdio.h>

int main() {

int t1 = 0, t2 = 1, nextTerm = 0, n;

printf("Enter a positive number: ");

scanf("%d", &n);

// displays the first two terms which is always 0 and 1

printf("Fibonacci Series: %d, %d, ", t1, t2);

nextTerm = t1 + t2;

while (nextTerm <= n) {

printf("%d, ", nextTerm);

t1 = t2;

t2 = nextTerm;

nextTerm = t1 + t2;

}

return 0;

}

Q8

#include <stdio.h>

int main() {

int num, originalNum, remainder, result = 0;

printf("Enter a three-digit integer: ");

scanf("%d", &num);

originalNum = num;

while (originalNum != 0) {

// remainder contains the last digit

remainder = originalNum % 10;

result += remainder \* remainder \* remainder;

// removing last digit from the orignal number

originalNum /= 10;

}

if (result == num)

printf("%d is an Armstrong number.", num);

else

printf("%d is not an Armstrong number.", num);

return 0;

}

Q9

#include <stdio.h>

int main() {

char c;

for (c = 'A'; c <= 'Z'; ++c)

printf("%c ", c);

return 0;

}

Q10

#include<stdio.h>

#define MAX 5

int main()

{

int i,j;

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

{

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

{

printf("\*");

}

printf("\n");

}

return 0;

}

Q11

#include <stdio.h>

int main() {

int n, i, flag = 0;

printf("Enter a positive integer: ");

scanf("%d", &n);

for (i = 2; i <= n / 2; ++i) {

// condition for non-prime

if (n % i == 0) {

flag = 1;

break;

}

}

if (n == 1) {

printf("1 is neither prime nor composite.");

}

else {

if (flag == 0)

printf("%d is a prime number.", n);

else

printf("%d is not a prime number.", n);

}

return 0;

}

Q12

#include <stdio.h>

int main()

{

int num, i;

printf("Enter a positive integer: ");

scanf("%d", &num);

printf("Factors of %d are: ", num);

for (i = 1; i <= num; ++i) {

if (num % i == 0) {

printf("%d ", i);

}

}

return 0;

}

Q13

#include <stdio.h>

int main()

{

int num,total=0;

do

{

printf("enter a number:");

scanf("%d",&num);

total=total=num;

}

while (num!=-1);

printf("Total=%d",total+1);

}

Q14

#include <stdio.h>

#define MAX\_SIZE 1000 // Maximum array size

int main()

{

int arr[MAX\_SIZE]; // Declare an array of MAX\_SIZE

int i, N;

/\* Input array size \*/

printf("Enter size of array: ");

scanf("%d", &N);

/\* Input elements in array \*/

printf("Enter %d elements in the array : ", N);

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

{

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

}

/\*

\* Print all elements of array

\*/

printf("\nElements in array are: ");

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

{

printf("%d, ", arr[i]);

}

return 0;

}

Q15

#include<stdio.h>

int main()

{

int Size, i, a[10];

int Even\_Count = 0, Odd\_Count = 0;

printf("\n Please Enter the Size of an Array : ");

scanf("%d", &Size);

printf("\nPlease Enter the Array Elements\n");

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

{

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

}

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

{

if(a[i] % 2 == 0)

{

Even\_Count++;

}

else

{

Odd\_Count++;

}

}

printf("\n Total Number of Even Numbers in this Array = %d ", Even\_Count);

printf("\n Total Number of Odd Numbers in this Array = %d ", Odd\_Count);

return 0;

}

Section B

Q1

#include <stdio.h>

int main()

{

int number, positive = 0, negative = 0, zero = 0;

char choice;

do

{

printf("Enter a number :");

scanf("%d", &number);

if (number > 0)

{

positive++;

}

else if (number < 0)

{

negative++;

}

else

{

zero++;

}

printf("Do you want to Continue(y/n)? ");

scanf("%c", &choice);

}while (choice == 'y' || choice == 'Y');

printf("\nPositive Numbers :%d\nNegative Numbers :%d\nZero Numbers :%d",

positive, negative, zero);

return 0;

}

Q2

#include<stdio.h>

int main()

{

float average;

int i, n, count=0, sum=0, squaresum=0, num, min, max;

printf("Enter how many student do you need\n");

scanf\_s("%d",&n);

printf("Please enter %d numbers\n",n);

while(count<n)

{

min=0;

max=0;

if(num>max)

max=num;

if(num<min)

min=num;

scanf\_s("%d",&num);

sum = sum+num;

squaresum = squaresum + (num\*num);

count++;

}

average = 1.0\*sum/n;

printf("Your average is %.2f\n",average);

printf("The sum of your squares is %d\n",squaresum);

printf("maximum number is %d\n",max);

printf("minimum number is %d\n",min);

return(0);

}

Q3

float price,total=0;

int i,count=0;

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

{

printf("Enter the price [%d] : ",i+1);

scanf("%f",&price);

total=total+price;

if(price>200)

count++;

}

printf("Items which the price is greater than 200 = %d \n",count);

printf("Total = %.2f \n",total);

printf("Average = %.2f \n",total/10);

Q4

int emp\_no,count=0;

float basic;

do

{

printf("Enter Employee No : ");

scanf("%d",&emp\_no);

printf("Enter basic salary : ");

scanf("%f",&basic);

if(basic>=5000)

count++;

}while(emp\_no!=999);//here it takes 999th salary also

Q5

int count1=0,i,emp\_num,ot,working\_hours,ot\_payment,count2=0;

float percentage;

for(count1=0;count1<1000;count1++)

{

printf("Enter the Employee Number %d = ",count1+1);

scanf("%d",&emp\_num);

if(emp\_num==-999)

{

break;

}

printf("Enter the number of hours worked of Employee Number %d = ",emp\_num);

scanf("%d",&working\_hours);

for(i=count1;i<=count1;i++)

{

if(working\_hours>40)

{

ot=working\_hours-40;

ot\_payment=150\*ot;

printf("Overtime Payment = %d\n",ot\_payment);

}

else

printf("No Overtime Payment\n");

}

}

if(ot\_payment>4000)

{

count2=count2+1;

} percentage=(float)count2/count1\*100;

printf("The Percentage Of Whose Over Time Payment Exceeding the Rs.4000 is %.2f",percentage);

}

Practical Number 05

01)

int arr[10],i,max=0,min=0,total=0;

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

{

printf("Enter number [%d] : ",i+1);

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

max=arr[0];

min=arr[0];

if(arr[i]>max)

max=arr[i];

if(arr[i]<min)

min=arr[i];

total=total+arr[i];

}

for(i=10;i>=0;i--)

{

printf("%d ",arr[i]);

}

//i

printf("MAX = %d \n",max);

//ii

printf("MIN = %d \n",min);

//iii

printf("AVARAGE = %d \n",total/10);

//iv

for(i=10;i>=0;i--)

{

printf("%d ",arr[i]);

}

02) {

int N, scalar\_sum=0,i,j,scalar\_pro=0,vector\_pro=0;

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

scanf("%d",&N);

int a[N],b[N],c[N],vp[N],s[N],vs[N];

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

printf("Enter Values For Array 1 : ");

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

}

printf("\n");

for(j =0; j<N ; j++){

printf("Enter Values For Array 2 : ");

scanf("%d",&b[j]);

}

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

s[i]=a[i]+b[i];

scalar\_sum=scalar\_sum+s[i];

}

printf("\nScalar Sum = %d \n",scalar\_sum);

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

c[i]=a[i]\*b[i];

scalar\_pro=scalar\_pro+c[i];

}

printf("Scalar Product is = %d\n",scalar\_pro);

printf("\nVector Sum is : ");

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

vs[i]=a[i]+b[i];

printf("%d,",vs[i]);

}

printf("\nVector Product is : ");

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

vp[i]=a[i]\*b[i];

printf("%d,",vp[i]);

}

printf("\n");

}

**Practice - 06**

#include <stdio.h>

#include <stdlib.h>

int main()

{

int arr1[3][3],arr2[3][3],arr3[3][3];//c-columns //r-rows

int r,c;

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

{

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

{

printf("Enter arr1[%d][%d]",r,c);

scanf("%d",&arr1[r][c]);

}

}

//arr1 finish

printf("\n#arr1[][] has taken \n\n");

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

{

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

{

printf("Enter arr2[%d][%d]",r,c);

scanf("%d",&arr2[r][c]);

}

}

//arr2 finish

printf("\n#arr2[][] has taken \n\n");

//print the output as a table arr1

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

{

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

{

printf("%d\t",arr1[r][c]);

}

printf("\n");

}

printf("\n");

printf("\t +");

printf("\n");

//print the output as a table arr2

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

{

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

{

printf("%d\t",arr2[r][c]);

}

printf("\n");

}

printf("\t =");

printf("\n");

//final output

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

{

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

{

printf("%d \t",arr1[r][c]+arr2[r][c]);

}

printf("\n");

}

return 0;

}

**Practical Number 06**

01)

#include <stdio.h>

#include <stdlib.h>

int main()

{

int arr1[3][3],arr2[3][3],arr3[3][3];//c-columns //r-rows

int r,c;

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

{

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

{

printf("Enter arr1[%d][%d]",r,c);

scanf("%d",&arr1[r][c]);

}

}

//arr1 finish

printf("\n#arr1[][] has taken \n\n");

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

{

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

{

printf("Enter arr2[%d][%d]",r,c);

scanf("%d",&arr2[r][c]);

}

}

//arr2 finish

printf("\n#arr2[][] has taken \n\n");

//print the output as a table arr1

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

{

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

{

printf("%d\t",arr1[r][c]);

}

printf("\n");

}

printf("\n");

printf("\t +");

printf("\n");

//print the output as a table arr2

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

{

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

{

printf("%d\t",arr2[r][c]);

}

printf("\n");

}

printf("\t =");

printf("\n");

//final output

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

{

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

{

printf("%d \t",arr1[r][c]+arr2[r][c]);

}

printf("\n");

}

return 0;

}

Practical Number 07

01) //NO parameters

//WITH return

int integerPower()

{

int base,ex,power=1,i;

printf("Enter base : ");

scanf("%d",&base);

printf("Enter exponent : ");

scanf("%d",&ex);

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

{

power=power\*base;

}

return power;

}

int main()

{

printf("power = %d",integerPower());//calling function

}

02)

#include <stdio.h>

int time(int hours,int minutes,int seconds)

{

int ans;

ans=((hours\*3600)+(minutes\*60)+seconds);

return ans;

}

int main()

{

int h1,h2,m1,m2,s1,s2;

printf("First Time\n");

printf("Enter Hours\n");

scanf("%d",&h1);

printf("Enter Mintues\n");

scanf("%d",&m1);

printf("Enter Seconds\n");

scanf("%d",&s1);

printf("Second Time\n");

printf("Enter Hours\n");

scanf("%d",&h2);

printf("Enter Minutes\n");

scanf("%d",&m2);

printf("Enter Seconds\n");

scanf("%d",&s2);

printf("%d Seconds",time(h1,m1,s1)-time(h2,m2,s2));

}

03(a)

//NO parameters

//WITH return

int celsius()

{

int cl,fr;

printf("Enter Fahrenheit : ");

scanf("%d",&fr);

cl=(fr-32)\*5/9;

return cl;

}

int main()

{

printf("celsius = %d",celsius());

}

03(b)

//NO parameters

//WITH return

int fahrenheit()

{

int cl,fr;

printf("Enter Celsius : ");

scanf("%d",&cl);

// cl=(fr-32)\*5/9;

fr=(cl\*9/5)+32;

return fr;

}

int main()

{

printf("fahrenheit = %d",fahrenheit());

}

03(c)

//NO parameters

//NO return type

void temp\_converter()

{

int cl,fr,i;

for(i=0;i<=100;i++)

{

cl=i;

fr=(cl\*9/5)+32;

printf("Celsius- %d \t Fahrenheit - %d \n",cl,fr);

}

printf("\n");

for(i=32;i<=212;i++)

{

fr=i;

cl=(fr-32)\*5/9;

printf("Fahrenheit- %d \t Celsius - %d \n",fr,cl);

}

}

int main()

{

temp\_converter();

}

04)

//NO parameters

//NO parameters

void smallest()

{

float no,min=0,max=0;

int i;

min=no;

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

{

printf("Enter a number [%d] : ",i+1);

scanf("%f",&no);

if(no>max)

max=no;

if(no<min)

min=no;

}

printf("%.3f is the smallest",min);

}

int main()

{

smallest();

}