Functions in c

***1.Function without argument and without return value***

***2.Function without argument and with return value***

***3.Function with argument and without return value***

***4.Function with argument and with return value***

***5.Call by value***

***6.Call by reference***

***//1(a)Function without argument and without return value***

#include<stdio.h>

**void** name**();**

**int** main**()**

**{**

printf**(**"Hello"**);**

name**();**

**return** 0**;**

**}**

**void** name**()**

**{**

printf**(**"\nMy name is ... "**);**

**}**

***//1(b)Function without argument and without return value***

#include<stdio.h>

**void** sum**();**

**int** main**()**

**{**

printf**(**"Hello"**);**

sum**();**

**return** 0**;**

**}**

**void** sum**()**

**{**

**int** a**,**b**,**c**;**

printf**(**"\nEnter two numbers:\n"**);**

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

c**=**a**+**b**;**

printf**(**"Sum of two no is %d"**,**c**);**

**}**

***//2(a)Function without argument with return value***

#include<stdio.h>

**int** sum**();**

**int** main**()**

**{**

**int** result**;**

printf**(**"Hello"**);**

result**=**sum**();**

printf**(**"Sum is %d"**,**result**);**

**return** 0**;**

**}**

**int** sum**()**

**{**

**int** a**,**b**,**c**;**

printf**(**"\nEnter two numbers:\n"**);**

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

**return** a**+**b**;**

**}**

***//2(b)Function without argument with return value***

#include<stdio.h>

**int** area**();**

**int** main**()**

**{**

**float** result**;**

printf**(**"Hello"**);**

result**=**area**();**

printf**(**"Area of square is %.3f"**,**result**);**

**return** 0**;**

**}**

**int** area**()**

**{**

**float** side**;**

printf**(**"\nEnter length of side:\n"**);**

scanf**(**"%f"**,&**side**);**

**return** side**\***side**;**

**}**

***//3(a)Function with argument without return value***

#include<stdio.h>

**int** sum**(int** **,int** **);**

**int** main**()**

**{**

**int** a**,**b**,**result**;**

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

printf**(**"Enter two number's: \n"**);**

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

sum**(**a**,**b**);**

**return** 0**;**

**}**

**int** sum**(int** a**,int** b**)**

**{**

printf**(**"Sum is:%d"**,**a**+**b**);**

**}**

***//3(b)Function with argument without return value***

***//To calculate average of five numbers***

#include<stdio.h>

**void** average**(float** **,float** **,float** **,float** **,float);**

**int** main**()**

**{**

**float** a**,**b**,**c**,**d**,**e**,**result**;**

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

printf**(**"Enter 5 subject mark's: \n"**);**

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

average**(**a**,**b**,**c**,**d**,**e**);**

**return** 0**;**

**}**

**void** average**(float** a**,float** b**,float** c**,float** d**,float** e**)**

**{**

**float** avg**;**

avg**=(**a**+**b**+**c**+**d**+**e**)/**5**;**

printf**(**"Average is:%.3f"**,**avg**);**

**}**

***//4(a)Function with argument and with return value***

#include<stdio.h>

**int** sum**(int** **,int** **);**

**int** main**()**

**{**

**int** a**,**b**,**result**;**

printf**(**"Enter two numbers:\n"**);**

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

result**=**sum**(**a**,**b**);**

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

**}**

**int** sum**(int** a**,int** b**)**

**{**

**return** a**+**b**;**

**}**

***//4(b)Function with argument and with return value***

***// To check no is even or odd***

#include<stdio.h>

**int** even\_odd**(int);**

**int** main**()**

**{**

**int** a**,**flag**;**

printf**(**"Enter a number:\n"**);**

scanf**(**"%d"**,&**a**);**

flag**=**even\_odd**(**a**);**

**if(**flag**==**1**)**

**{**

printf**(**"%d is even"**,**a**);**

**}**

**if(**flag**==**0**)**

**{**

printf**(**"%d is odd"**,**a**);**

**}**

**}**

**int** even\_odd**(int** a**)**

**{**

**if(**a**%**2**==**0**)**

**{**

**return** 1**;**

**}**

**else**

**return** 0**;**

**}**

***//5.Call by value***

#include<stdio.h>

**int** swap**(int** x**,int** y**);**

**int** main**()**

**{**

**int** a**,**b**;**

printf**(**"Enter two no: \n"**);**

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

swap**(**a**,**b**);**

printf**(**"\n\nBefore swap:\na:%d \t b:%d"**,**a**,**b**);**

**}**

**int** swap**(int** x**,int** y**)**

**{**

**int** c**;**

c**=**y**;**

y**=**x**;**

x**=**c**;**

printf**(**"\nAfter swap:\na=%d \t b=%d"**,**x**,**y**);**

**}**

***//6.Call by reference***

#include<stdio.h>

**int** swap**(int** **\***x**,int** **\***y**);**

**int** main**()**

**{**

**int** a**,**b**;**

printf**(**"Enter two no: \n"**);**

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

swap**(&**a**,&**b**);**

printf**(**"\n\nMain Function:\na:%d \t b:%d"**,**a**,**b**);**

**}**

**int** swap**(int** **\***x**,int** **\***y**)**

**{**

**int** c**;**

c**=\***y**;**

**\***y**=\***x**;**

**\***x**=**c**;**

printf**(**"\nAfter swap:\na=%d \t b=%d"**,\***x**,\***y**);**

**}**