**Functions in C Language**

**Assignment – 10**

**1.** **#include<stdio.h>**

**int area(int);**

**int main()**

**{**

**int r;**

**printf("ENTER RADIUS OF CIRCLE:");**

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

**printf("AREA OF CIRCLE IS=%d",area(r));**

**return 0;**

**}**

**int area(int r)**

**{**

**int a;**

**a=3.14\*r\*r;**

**return a;**

**}**

**2.** **#include<stdio.h>**

**int sip(int,int,int);**

**int main()**

**{**

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

**printf("ENTER PRINCIPLE VALUE:");**

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

**printf("ENTER RATE OF INTREST VALUE:");**

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

**printf("ENTER TIME VALUE:");**

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

**printf("SIMPLE INTEREST VALUE=%d",sip(a,b,c));**

**return 0;**

**}**

**int sip(int a,int b,int c)**

**{**

**int r;**

**r=(a\*b\*c)/100;**

**return r;**

**}**

**3.** **#include <stdio.h>**

**int find\_Num(int);**

**int main()**

**{**

**int num;**

**printf("Enter a number to check odd or even\n");**

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

**find\_Num(num);**

**return 0;**

**}**

**int find\_Num(int num)**

**{**

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

**{**

**printf("\n%d is an even number",num);**

**}**

**else**

**{**

**printf("\n%d is an odd number",num);**

**}**

**}**

**4.** **#include<stdio.h>**

**void n(int);**

**int main()**

**{**

**int a;**

**printf("ENTER VALUE OF N FOR NATURAL NO=");**

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

**n(a);**

**return 0;**

**}**

**void n(int a)**

**{**

**int i;**

**printf("N NATURAL NO=\n");**

**for(i=1;i<=a;i++)**

**printf("%d\n",i);**

**}**

**5.** **#include<stdio.h>**

**void n(int);**

**int main()**

**{**

**int a;**

**printf("ENTER LIMIT FOR ODD NO=");**

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

**n(a);**

**return 0;**

**}**

**void n(int a)**

**{**

**int i;**

**printf("ODD NO=\n");**

**for(i=1;i<=a;i++)**

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

**printf("%d\n",i-1);**

**}**

**6.** **#include<stdio.h>**

**int n(int);**

**int main()**

**{**

**int a;**

**printf("ENTER A NUMBER FOR ITS FACTORIAL =");**

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

**n(a);**

**return 0;**

**}**

**int n(int a)**

**{**

**int i,b=1;**

**printf("FACTORIAL IS=%d\n",i);**

**for(i=1;i<=a;i++)**

**b=b\*i;**

**printf("%d\n",b);**

**}**

**7.** **#include <stdio.h>**

**int fact(int z);**

**int main()**

**{**

**int n, r, nCr;**

**printf("Enter the value of n and r?");**

**scanf("%d %d",&n,&r);**

**nCr = fact(n) / (fact(r) \* fact(n - r));**

**printf("\nnCr = %d", nCr);**

**}**

**int fact(int z)**

**{**

**int f = 1, i;**

**if (z == 0)**

**{**

**return(f);**

**}**

**else**

**{**

**for (i = 1; i <= z; i++)**

**{**

**f = f \* i;**

**}**

**}**

**return(f);**

**}**

**9.** **#include<stdio.h>**

**int count(int,int);**

**int main() {**

**int n,d;**

**printf("ENTER NUMBERS=");**

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

**printf("ENTER digit=");**

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

**int x = count(n, d);**

**if(x)**

**{**

**printf("%d is occured in %d",d,n);**

**}**

**return 0;**

**}**

**int count(int n, int d){**

**int num=n,rem=0;**

**while(num!=0)**

**{**

**rem=num%10;**

**if(rem==d)**

**{**

**return 1;**

**}**

**num/=10;**

**}**

**return 0;**

**}**

**10.** **# include <stdio.h>**

**# include <math.h>**

**void primeFactors(int n)**

**{**

**while (n%2 == 0)**

**{**

**printf("%d ", 2);**

**n = n/2;**

**}**

**for (int i = 3; i <= sqrt(n); i = i+2)**

**{**

**while (n%i == 0)**

**{**

**printf("%d ", i);**

**n = n/i;**

**}**

**}**

**if (n > 2)**

**printf ("%d ", n);**

**}**

**int main()**

**{**

**int n = 36;**

**primeFactors(n);**

**return 0;**

**}**