**Vidyanand Kumar**

**A Job Ready Bootcamp in C++, DSA and IOT**

**Assignment – 3**

1).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num>0)

printf("Positive");

else

printf("Non-positive");

getch();

}

2).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num%5==0)

printf("Divisible by 5");

else

printf("Not divisible by 5");

getch();

}

3).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num%2==0)

printf("Even number");

else

printf("Odd number");

getch();

}

4).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if((num&1)==0)

printf("Even number");

else

printf("Odd number");

getch();

}

5).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num>99 && num<1000)

printf("Three digit number");

else

printf("Not three digit number");

getch();

}

6).

#include<stdio.h>

#include<conio.h>

int main()

{

int num1,num2;

printf("Enter two number:");

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

if(num1>num2)

printf("%d is greater than %d",num1,num2);

else if(num1<num2)

printf("%d is greater than %d",num2,num1);

else

printf("both are same number: %d",num1);

getch();

}

7).

#include<stdio.h>

#include<conio.h>

int main()

{

int a,b,c;

printf("Enter value of a,b,c:");

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

printf("Quadratic Equation:%dx^2+%dx+%d\n",a,b,c);

float D;

D=b\*b-4\*a\*c;

if(D>0)

printf("Roots are real and distinct");

else if(D==0)

printf("Roots are real and equal");

else

printf("Roots are imaginary");

getch();

}

8).

#include<stdio.h>

#include<conio.h>

int main()

{

int yr;

printf("Enter year:");

scanf("%d",&yr);

if((yr%4==0 && yr%100!=0) || yr%400==0)

printf("%d is a leap year",yr);

else

printf("%d is not a leap year",yr);

getch();

}

9).

#include<stdio.h>

#include<conio.h>

int main()

{

int x,y,z;

printf("Enter three numbers:");

scanf("%d %d %d",&x,&y,&z);

if(x>y)

printf("Greatest number:%d",x>z?x:z);

else

printf("Greatest number:%d",y>z?y:z);

getch();

}

10).

#include<stdio.h>

#include<conio.h>

int main()

{

float CP,SP;

printf("Enter CP and SP:");

scanf("%f %f",&CP,&SP);

float loss,profit;

if(SP>CP)

{

profit =(((SP-CP)/CP)\*100);

printf("Profit percent= %f",profit);

}

else

{

loss =(((CP-SP)/CP)\*100);

printf("Loss percent= %f",loss);

}

getch();

}

11).

#include<stdio.h>

#include<conio.h>

int main()

{

int maths,eng,sci,sst,cs;

printf("Enter marks of Mathematics:\n");

scanf("%d",&maths);

printf("Enter marks of English:\n");

scanf("%d",&eng);

printf("Enter marks of Science:\n");

scanf("%d",&sci);

printf("Enter marks of Social Studies:\n");

scanf("%d",&sst);

printf("Enter marks of Computer Science:\n");

scanf("%d",&cs);

if(maths>=33 && eng>=33 && sci>=33 && sst>=33 && cs>=33)

printf("Candidate is pass");

else

printf("Candidate is fail");

getch();

}

12).

#include<stdio.h>

#include<conio.h>

int main()

{

char C;

printf("Enter an alphabet:");

scanf("%c",&C);

if(C>='A' && C<='Z')

printf("UPPERCASE");

else if(C>='a' && C<='z')

printf("LOWERCASE");

else

printf("INVALID");

getch();

}

13).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num%3==0 && num%2==0)

printf("%d is divisible by 3 and divisible by 2",num);

else

printf("%d is not divisible by 3 and divisible by 2",num);

getch();

}

14).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num%7==0 || num%3==0)

printf("%d is divisible by 7 or divisible by 3",num);

else

printf("%d is not divisible by 7 or divisible by 3",num);

getch();

}

15).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter a number:");

scanf("%d",&num);

if(num>0)

printf("%d is Positive",num);

else if(num==0)

printf("%d is Zero",num);

else

printf("%d is Negative",num);

getch();

}

16).

#include<stdio.h>

#include<conio.h>

#include<ctype.h>

int main()

{

char C;

printf("Enter a character:");

scanf("%c",&C);

if(isupper(C))

printf("%c is UPPERCASE",C);

else if(islower(C))

printf("%c is LOWERCSE",C);

else if(isdigit(C))

printf("%c is DIGIT",C);

else

printf("%c is SPECIAL CHARACTER",C);

getch();

}

17).

#include<stdio.h>

#include<conio.h>

int main()

{

int s1,s2,s3;

printf("Enter sides of a triangle:");

scanf("%d %d %d",&s1,&s2,&s3);

if(s1+s2>s3 && s1+s3>s2 && s2+s3>s1)

printf("Triangle is valid");

else

printf("Triangle is not valid");

getch();

}

18).

#include<stdio.h>

#include<conio.h>

int main()

{

int num;

printf("Enter month number:");

scanf("%d",&num);

if(num>0)

{

if(num==1)

printf("January:31");

else if(num==2)

printf("February:28 or 29");

else if(num==3)

printf("March:31");

else if(num==4)

printf("April:30");

else if(num==5)

printf("May:31");

else if(num==6)

printf("June:30");

else if(num==7)

printf("July:31");

else if(num==8)

printf("August:31");

else if(num==9)

printf("September:30");

else if(num==10)

printf("October:31");

else if(num==11)

printf("November:30");

else if(num==12)

printf("December:31");

}

else

printf("Invalid");

getch();

}