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**C Language Assignment 8**

1).

#include<stdio.h>

#include<conio.h>

int main()

{

int x;

printf("Enter a number:");

scanf("%d",&x);

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

printf("Divisible by 3 and 2");

else

printf("Not divisible by 3 and 2");

getch();

}

2).

#include<stdio.h>

#include<conio.h>

int main()

{

int x;

printf("Enter a number:");

scanf("%d",&x);

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

printf("Divisible by 7 or 3");

else

printf("Not divisible 7 or 3");

getch();

}

3).

#include<stdio.h>

#include<conio.h>

int main()

{

int x;

printf("Enter a number:");

scanf("%d",&x);

if(x>0)

printf("Positive");

else

{

if(x<0)

printf("Negative");

else

printf("Zero");

}

getch();

}

4).

#include<stdio.h>

#include<conio.h>

int main()

{

int year;

printf("Enter a year:");

scanf("%d",&year);

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

printf("%d is a Leap year",year);

else

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

getch();

}

5).

#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();

}

6).

#include<stdio.h>

#include<conio.h>

int main()

{

char m;

printf("Enter a character:");

scanf("%c",&m);

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

printf("UPPERCASE");

else

{

if(m>='a' && m<='z')

printf("LOWERCSE");

else

{

if(m>='0' && m<='9')

printf("DIGIT");

else

printf("SPECIAL CHARACTER");

}

}

getch();

}

7).

#include<stdio.h>

#include<conio.h>

int main()

{

int x,y,z;

printf("Enter the length of sides of triangle:");

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

if(x+y>z && y+z>x && z+x>y)

printf("Valid Triangle");

else

printf("Invalid Triangle");

getch();

}

8).

#include<stdio.h>

#include<conio.h>

int main()

{

int choice;

printf("Enter month number:");

scanf("%d",&choice);

switch(choice)

{

case 1:

printf("31");

break;

case 2:

printf("28 or 29");

break;

case 3:

printf("31");

break;

case 4:

printf("30");

break;

case 5:

printf("31");

break;

case 6:

printf("30");

break;

case 7:

printf("31");

break;

case 8:

printf("31");

break;

case 9:

printf("30");

break;

case 10:

printf("31");

break;

case 11:

printf("30");

break;

case 12:

printf("31");

break;

default:

printf("Invalid input");

}

getch();

}

9).

#include<stdio.h>

#include<conio.h>

int main()

{

float a,b,c,d,x1,x2;

printf("Quadratic equation:a\*x\*x+b\*x+c \nEnter value of a,b,c:");

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

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

x1=(-b+sqrt(d))/2\*a;

x2=(-b-sqrt(d))/2\*a;

printf("x1:%f\nx2:%f",x1,x2);

if(d>0)

printf("\nRoots are real and unequal");

else if(d<0)

printf("\nRoots are imaginary and unequal");

else

printf("\nRoots are real and equal");

getch();

}

10).

#include<stdio.h>

#include<conio.h>

int main()

{

float phy,che,bio,maths,comp,percent;

printf("Enter marks of Physics:");

scanf("%f",&phy);

printf("\nEnter marks of Chemistry:");

scanf("%f",&che);

printf("\nEnter marks of Biology:");

scanf("%f",&bio);

printf("\nEnter marks of Mathematics:");

scanf("%f",&maths);

printf("\nEnter marks of Computer:");

scanf("%f",&comp);

percent=((phy+che+bio+maths+comp)\*100)/500;

printf("\nPercentage:%f",percent);

if(percent>=90)

printf("\nGrade A");

else if(percent>=80 && percent<90)

printf("\nGrade B");

else if(percent>=70 && percent<80)

printf("\nGrade C");

else if(percent>=60 && percent<70)

printf("\nGrade D");

else if(percent>=40 && percent<60)

printf("\nGrade E");

else

printf("\nGrade F");

getch();

}