

Assignment - 3 A Job Ready Bootcamp in C++, DSA and IOT

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Decision Control Statements

Ques:1.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a Number:");
    scanf("%d",&a);
    a>0?printf("%d is a Positive.",a):printf("%d is a Non-Positive.",a);
    getch();
    return 0;
}
```

Ques:2.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a Number:");
    scanf("%d",&a);
    a%5==0?printf("%d is divisible by 5",a):printf("%d is not divisible by 5",a);
    getch();
    return 0;
}
```

Ques:3.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int x;
    printf("Enter a Number:");
    scanf("%d",&x);
    x%2==0?printf("%d is an Even Number",x):printf("%d is an Odd Number",x);
    getch();
    return 0;
}
```

Ques:4.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int x;
    printf("Enter a Number:");
    scanf("%d",&x);
    x%2?printf("%d is an Odd Number",x):printf("%d is an Even Number",x);
    getch();
    return 0;
}
```

Ques:5.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a Number:");
    scanf("%d",&a);
    a>=100&&a<=999?printf("%d is a three-digit number.",a):printf("%d is not three-digit number.",a);
    getch();
    return 0;
}
```

Ques:6.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int a,b;
    printf("Enter value of a, b:");
    scanf("%d%d",&a,&b);
    if(a>b||b>a)
    {
        if(a>b)
        {
            printf("%d is greater number",a);
        }
        else
        {
            printf("%d is greater number",b);
        }
    }
    else
    {

```

```

        printf("Both are the same:%d",a);
    }
    getch();
    return 0;
}

```

Ques:7.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a,b,c,x;
    printf("Enter value of a, b, c:");
    scanf("%d%d%d",&a,&b,&c);
    x=(b*b) - 4*a*c;
    if(x>=0)
    {
        if(x>0)
        {
            printf("Real and Distint=%d",x);
        }
        else
        {
            printf("Real and Equal=%d",x);
        }
    }
    else
    {
        printf("Imaginary root=%d",x);
    }
    getch();
    return 0;
}

```

Ques:8.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a Year:");
    scanf("%d",&a);
    a%4?printf("%d is not a leap year.",a):printf("%d is a leap year.",a);
    getch();
    return 0;
}

```

Ques:9.

```
#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);
    if(a>b&&a>c||b>a&&b>c)
    {
        if(a>b&&b!=c)
        {
            printf("\n a is greater than b and c: %d",a);
        }
        if(b>a&&a!=c)
        {
            printf("\n b is greater than a and c: %d",b);
        }
    }
    else
        if(a<c&&a!=c&&b<c&&b!=c&&a!=b)
        {
            printf("\n c is greater than a and b: %d",c);
        }
        if(a==b&&b!=c&&a!=c)
        {
            printf("\n a and b both are equal: %d",a);
        }
        if(b==c&&a!=b&&a!=c)
        {
            printf("\n b and c both are equal: %d",b);
        }
        if(a==c&&b!=c&&b!=a)
        {
            printf("\n a and c are both equal=: %d",c);
        }
        if(a==b&&b==c&&a==c)
        {
            printf("\n a and b and c are equal");
        }
    getch();
    return 0;
}
```

Ques:10.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int a,b,c,d,e,f;
    printf("Enter cost price and selling price:");
    scanf("%d%d",&a,&b);
    c=b-a;
    d=a-b;
    e=c*100/a;
    f=d*100/a;
    if (a<b)
        printf("Profit percentage=%d",e);
    else
        printf("Loss percentage=%d",f);
    getch();
    return 0;
}
```

Ques:11.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    int a,b,c,d,e;
    printf("Enter marks all five subject:");
    scanf("%d%d%d%d%d",&a,&b,&c,&d,&e);
    if(a>=33&&a<=100&&b>=33&&b<=100&&c>=33&&c<=100&&d>=33&&d<=100&&e>=33&&e<=100)
        printf("Pass");
    else
        printf("Fail");
    getch();
    return 0;
}
```

Ques:12.

```
#include<stdio.h>
#include<conio.h>
int main()
{
    char a;
    printf("Enter an alphabet:");
    scanf("%c",&a);
    if((a>=65&&a<=90)|| (a>=97&&a<=122))
    {
        if(a>=65&&a<=90)
            printf("Uppercase");
    }
}
```

```

        if(a>=97&&a<=122)
            printf("Lowercase");
    }
    else
    {
        printf("\n Your input is wrong, Please check and enter valid alphabet.");
    }
    getch();
    return 0;
}

```

Ques:13.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a Number:");
    scanf("%d",&a);
    if(a%2==0&&a%3==0)
    {
        printf("%d is divisible by 2 and 3",a);
    }
    else
    {
        printf("%d is not divisible by 2 and 3 both.",a);
    }
    getch();
    return 0;
}

```

Ques:14.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a Number:");
    scanf("%d",&a);
    if(a%3==0 || a%7==0)
    {
        if(a%3==0)
        {
            printf("%d is divisible by 3\n",a);
        }
        if(a%7==0)
        {

```

```

        printf("%d is divisible by 7",a);
    }

}
else
{
    printf("%d is not divisible by 3 or 7 both.",a);
}
getch();
return 0;
}

```

Ques:15.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter a number:");
    scanf("%d",&a);
    if(a>0||a<0)
    {
        if(a>0)
        {
            printf("%d is a Positive",a);
        }
        if(a<0)
        {
            printf("%d is a Negative",a);
        }
    }
    else
    {
        printf("%d is a Zero",a);
    }
    getch();
    return 0;
}

```

Ques:16.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    char a;
    printf("Enter an alphabet:");
    scanf("%c",&a);
    if((a>=65&&a<=90)|| (a>=97&&a<=122)|| (a>=47&&a<=57))
    {

```



```

        if(a>=65&&a<=90)
            printf("Uppercase");
        if(a>=97&&a<=122)
            printf("Lowercase");
        if(a>=47&&a<=57)
            printf("Digit");
    }
    else
    {
        printf("Special Character");
    }
    getch();
    return 0;
}

```

Ques:17.

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a,b,c;
    printf("Enter the length a, b, c:");
    scanf("%d%d%d",&a,&b,&c);
    ((a+b>c)&&(b+c>a)&&(c+a>b))?printf("The triangle is valid"):printf("The triangle is not valid");
    getch();
    return 0;
}

```

Ques.18

```

#include<stdio.h>
#include<conio.h>
int main()
{
    int a;
    printf("Enter the number of month:");
    scanf("%d",&a);
    if(a>=1&&a<=12)
    {
        if((a==1)|| (a==3)|| (a==5)|| (a==7)|| (a==8)|| (a==10)|| (a==12))
            printf("Number of days in that month is 31");
        if((a==4)|| (a==6)|| (a==9)|| a==11)
            printf("Number of days in that month is 30");
        if(a==2)
            printf("Number of days in that month is 28 or 29(Leap Year)");
    }
    else

```

```
    printf("\n Your input invalid, Enter the number of months only 1 to 12.");  
    getch();  
    return 0;  
}
```