**Python Practice Questions: If-Else and Nested If-Else**

### 🧠 Basic Level

1. **Check Positive or Negative**  
   Write a Python program to check whether a number entered by the user is positive, negative, or zero.

Ans:- num1=int(input('enter the number'))

if num1 >0:

    print('positive')

elif num1==0:

    print('zero')

elif num1 == -1:

    print('-1')

else:

    print('negitive')

output: when we enter the num(5) it will print “positive’.

when we enter the num(0) it will print “zero”.

when we enter the num(-1) it will print “-1”.

when we enter the num(-5) it eill print “negative”.

1. **Even or Odd**  
   Write a program to input a number and check whether it is even or odd using an if-else statement.

Ans:- num1=1

if num1 >0:

    print("positive")

else:

    if num1==0:

        print('zero')

    else:

        print('negitive')

output: “negative”

1. **Check Leap Year**  
   Write a Python program to check whether a given year is a leap year or not.

A year is a leap year if it is divisible by 4 but not by 100, unless it’s also divisible by 400.

Ans:- year=int(input('enter the year.'))

if(year%4 ==0) and (year % 100 !=0):

    print('it is a leap year.')

elif (year % 400 == 0):

    print('it is a leap year')

else:

    print('it is not a leap year')

output:- when we enter (2021) output was ‘it is not a leap year’

when we enter (2020) output was ‘it is a leap year’

1. **Greatest of Two Numbers**  
   Write a program that takes two numbers from the user and prints which one is greater.

Ans:- num1= float(input('enter the number'))

num2= float(input('enter the number'))

if num1 > num2:

    print('it is greater value')

elif num2 > num1:

    print('it is a greater value')

else:

    print('both numbers are equal')

output:- when we enter num1(10)

when we enter num2(20)

the statement elif statisfy and it print(‘it is a greater value’)

1. **Voting Eligibility**  
   Ask the user for their age. If the age is 18 or more, print “Eligible to vote”, else print “Not eligible”.

Ans:- age= int(input('enter your age:'))

if age  >= 18:

    print("eligible to vote")

else:

    print("enable to vote")

output:- when we enter age is 18 if condition will satisfy and it print(“eligible to vote”)

when we enter age is 17 else condition will satisfy and it print(‘enable to vote”)

### 🧠🧠 Medium Level (Nested if-else / Multiple Conditions)

1. **Grade Checker**  
   Accept marks from the user and print the grade:

* Marks >= 90 → Grade A   
  75–89 → Grade B   
  60–74 → Grade C   
  40–59 → Grade D   
  Below 40 → Fail

Ans:- marks= int(input('enter the marks'))

if marks >= 90:

    print("grade A")

elif marks >= 75:

    print("Grade B")

elif marks >= 60:

    print("Grade c")

elif marks >= 40:

    print("Grade D")

else:

    print("fail")

output:- when we enter 90 it prints “Grade A”

when we enter 75 it prints “Grade B”

when we enter 60 it prints “Grade c”

when we enter 40 it prints “Grade D”

1. **Number Type Checker**  
   Ask the user to enter a number. Check:
   * If it is **positive**, check if it’s even or odd.
   * If it’s **negative**, print “Negative number”.
   * If it’s **zero**, print “Zero”.

Ans:- num = int(input("Enter a number: "))

if num > 0:

    if num % 2 == 0:

        print("Positive even number")

    else:

        print("Positive odd number")

elif num < 0:

    print("Negative number")

else:

    print("Zero")

Output:- when we enter -5 it gives (“Negitive number”)

When we enter 5(“positive odd number”)

When we enter 6(“positive even number”)

1. **Simple Calculator**  
   Ask the user to input two numbers and an operator (+, -, \*, /). Use if-else to perform the correct operation and show the result.

Ans:- num1 = float(input("Enter the first number: "))

num2 = float(input("Enter the second number: "))

operator = input("Enter an operator (+, -, \*, /): ")

if operator == '+':

    print("Result:", num1 + num2)

elif operator == '-':

    print("Result:", num1 - num2)

elif operator == '\*':

    print("Result:", num1 \* num2)

elif operator == '/':

  if num2 != 0:

        print("Result:", num1 / num2)

    else:

        print("Error: Cannot divide by zero.")

else:

    print("Invalid operator.")

output:-num1:- 10

num2:- 20

operator= +

output:- 30.0

operator = -

output:- -10

operator:- \*

output:-200.0

operator:- /

output:- 0.5