Part I

1. n = int(input('Give me a number over 100: '))

if n <= 100:

print(n, 'is not over 100')

1. age = int(input('Enter your age: '))

if age >= 18:

print("You can vote")

Part ii

1. x = int(input('Give me a number: '))

if x < 0:

print(x, 'is negative')

else:

print(x, 'is positive')

1. mark = float(input('Enter your mark: '))

if mark < 40:

print('FAIL')

else:

print('PASS')

1. number = int(input('Enter a number: '))

if number % 2 == 0:

print('The number is even')

else:

print('The number is odd')

Part iii

1. choice = int(input('Enter 1 for Celsius to Fahrenheit or 2 for Fahrenheit to Celsius: '))

temperature = float(input('Enter temperature: '))

if choice == 1:

fahrenheit = (temperature \* 1.8) + 32

print('Temperature in Fahrenheit:', fahrenheit)

elif choice == 2:

celsius = (temperature - 32) / 1.8

print('Temperature in Celsius:', celsius)

else:

print('Invalid option entered')

1. expression = input('Enter expression (e.g., 3 \* 2): ')

result = eval(expression)

print('Result:', result)

1. meal\_cost = float(input('Enter the cost of the meal: '))

satisfaction = int(input('Enter satisfaction level (1: Totally Satisfied, 2: Satisfied, 3: Dissatisfied): '))

if satisfaction == 1:

tip = meal\_cost \* 0.2

elif satisfaction == 2:

tip = meal\_cost \* 0.15

elif satisfaction == 3:

tip = meal\_cost \* 0.1

print('Satisfaction Level:', satisfaction)

print('Tip Amount:', tip)

Part iv

1. # Test these expressions in the interactive shell

True and True # True

True and False # False

False and True # False

False and False # False

spam = 'Hello'

10 < 20 and spam == 'Hello' # True

1. m = int(input('Give me number between 1 and 10: '))

if 1 <= m <= 10:

print('Well done! You gave me:', m)

1. # Test these expressions in the interactive shell

True or True # True

True or False # True

False or True # True

False or False # False

10 > 20 or 20 > 10 # True

1. mark = int(input('Enter exam mark: '))

if mark < 0 or mark > 100:

print('Invalid mark')

elif mark >= 70:

print('Exceptional result!')

elif mark >= 40:

print('Satisfactory result!')

else:

print('You have failed.')

1. # Test these expressions in the interactive shell

not True # False

not False # True

not ('black' == 'white') # True

1. x = 10

if not x > 10:

print("not returned True")

else:

print("not returned False")

Part v

response = input('Do you like Python? (yes/no): ').lower()

if response == 'yes':

print('You are on the right course!')

elif response == 'no':

print('You might change your mind.')

else:

print('I did not understand.')

Part vi

1. try:

n = int(input('Give me a number over 100: '))

if n <= 100:

print(n, 'is not over 100')

except ValueError:

print("Please enter a valid number")

1. try:

age = int(input('Enter your age: '))

if age >= 18:

print("You can vote")

except ValueError:

print("Please enter a valid age")

1. try:

num1 = float(input('Enter first number: '))

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

num2 = float(input('Enter second number: '))

if op == '/' and num2 == 0:

print('Error! Division by zero is not allowed.')

else:

result = eval(f"{num1} {op} {num2}")

print('Result:', result)

except ValueError:

print('Please enter valid numbers')

Part vii

1. import random

result = random.choice(['Heads', 'Tails'])

print(result)