**Question:1--**

# Define a function to calculate factorial

def factorial(n):

f = 1

for i in range(1, n + 1):

f = f \* i

return f

# Call the function and print the result

print(factorial(5)) # Output will be 120

**Question:2—**

# Import the math module

import math

# Step 1: Ask the user for a number

num = float(input("Enter a positive number: "))

# Step 2: Perform calculations using math module

sqrt\_value = math.sqrt(num) # Square root

log\_value = math.log(num) # Natural logarithm (base e)

sine\_value = math.sin(num) # Sine of the number (in radians)

# Step 3: Display the results

print("Square root of", num, "is:", sqrt\_value)

print("Natural logarithm of", num, "is:", log\_value)

print("Sine of", num, "radians is:", sine\_value)