



GLOBAL ACADEMY OF TECHNOLOGY

An Autonomous Institute, Affiliated to VTU
Belagavi, Approved by AICTE, Accredited by NAAC, 'A' Grade,

Ideal Homes Township, Rajarajeshwari Nagar, Bengaluru-560098
Tel: +918028603158 (Ext-300), Email: hodcse@gat.ac.in Web: www.gat.ac.in



Department of Computer Science and Engineering

(Accredited by NBA 2022-2025)

2022-23 Odd Semester

Question Bank

Semester: I

Course Name & Code: Python Programming(22PCL151)

Module 1

Python Basics, Flow Control

- 1) List the data types used in Python. Explain each with examples.
- 2) Explain the following functions in Python with suitable examples. print(), input(), len()
- 3) Explain the built-in functions which can be used to get the integer, floating-point number or string version of a value. Give example for each function.
- 4) List and explain comparison operators used in Python with suitable examples.
- 5) List and explain math operators used in Python with suitable examples.
- 6) Explain with an example, how + and * operators work with strings.
- 7) Explain the basics for executing a python program using REPL (shell) with an example. Write a python program to read using REPL (shell) and display the output.
- 8) Explain about different Boolean operators in python with appropriate examples.
- 9) List the rules for naming available in Python. Identify the following variables as valid and invalid. Balance, current balance, current-balance, 4account, _spam, 42, current Balance, current balance, SPAM, total_\$um, 'hello', account4
- 10) Which of the following are operators, and which are values?

*	'hello'	-88.8	+
/	-	5	//

- 11) What does the variable bacon contain after the following code runs?

- a) bacon=20 syntax error
- b) bacon++

- 12) What should the following two expressions evaluate to?

- a) 'spam'+'spamspam' b) 'spam'* 3

- 13) With the syntax and example, explain the following Simple if, if – else, elif
- 14) With the syntax and example, explain the following while loop, for loop
- 15) Explain the range() used in for loop in python with an example.
- 16) Differentiate between break and continue with suitable examples.
- 17) What do the following expressions evaluate to?
 - a) $(5 > 4)$ and $(3 == 5)$ false/0
 - b) not $(5 > 4)$ false/0
 - c) $(5 > 4)$ or $(3 == 5)$ true/1
 - d) not $((5 > 4)$ or $(3 == 5))$ false/0
 - e) (True and True) and $(\text{True} == \text{False})$ false/0
 - f) (not False) or (not True) true/1
 - g) $(5-1) * ((7+1) / (3-1))$ 16
- 18) Write a Python program to swap two numbers using temp variable.
- 19) Write a Python program to swap two numbers using comma operator.
- 20) Write a Python program to find Area of Triangle based on Base and Height.
- 21) Write a Python program to input an integer number and print its last digit.
- 22) Write a Python program to check whether a given number is even or odd.
- 23) Write a Python program to input principal and time. If time is more than 8years, assign rate of interest as 12%, else as 18%. Calculate simple interest and display.
- 24) Write a Python program to find out if a given year is a leap year or not. Any year which is divisible by 4 and not by 100 are leap years. Otherwise, any year which is divisible by 400 is also a leap year.
- 25) Write a Python program to input a number, check whether it is positive number or negative number or zero. Print the appropriate message.
- 26) Write a Python program to input a number, check whether it contains single digit or two digits or three digits or more than two digits.
- 27) Write a Python program to input a character, check whether it is uppercase letter or lowercase letter or digit or any other symbol.
- 28) Write a Python program to input a number and count the number of digits in it using while loop.
- 29) Write for loop to generate the following series.
 - a) 1234.....50
 - b) -20 2468 20
 - c) 999795 93.....1

d) -10-9-8-7 10

e) 1 2 4 8 16 32

f) 10 -10 20 -20 30 -30..... 60-60

30) Write for loop to find the sum of the following series

a) Sum = 1 +3+5 + +99

b) Sum=-100 + -99 +..... + -1

c) Sum = 0 +5+10 +.....+100

31) Write a Python program to find multiplication table of a number.

32) Write a Python program to input a positive integer and find its factorial.

33) Explain how to import modules in python with an example.

34) Write a Python program to print numbers, Even numbers, Odd numbers and Prime numbers between given range using loop and range function.

35) Write a Python program to get the Fibonacci series between given range.