



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD (now MoE)

Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC

Coimbatore - 641043, Tamil Nadu, India

Bachelor's Degree Examination – November 2025 III Semester

Class : II UG

Major : B.Com(With Minor Specialization – IT)

Time : 3 Hours

Max. Marks : 100

23BCOSE1IT - Python Programming

Course Outcomes:

- CO1: Apply decision and repetition structures in program design
- CO2: Develop functions to improve read ability of programs
- CO3: Design the programs with the use of Python lists and dictionaries
- CO4: Adopt file and exception handling mechanisms
- CO5: Ability to build python program to solve real world problems.

Part A

10 x 1 = 10

Choose the Correct Answer

1. Which function gives the data type of a variable?
a. datatype() b. typeof() c. type() d. var() CO1K1
2. Comments in python programming starts with _____
a. ? b. # c. ; d. @ CO1K1
3. Which operator is used for logical AND in Python?
a. && b. and c. & d. AND CO2K2
4. In Python, the else block after a loop executes:
a. Only if the loop ends normally b. Only if the loop breaks
c. Always d. Never CO2K1
5. In Python _____ keyword is used to define a function.
a. function b. define c. def d. fun CO3K1
6. Which is NOT a valid parameter type in Python functions?
a. Default argument b. Keyword argument
c. Variable-length argument d. Static argument CO3K2
7. In Python _____ operator is used to concatenate strings?
a. + b. & c. * d. concat () CO4K1
8. _____ operator is used to repeat a string/list?
a. & b. * c. ** d. repeat () CO4K1
9. What type of error is raised when an index is out of range in a list?
a. Value Error b. Index Error c. Key Error d. Type Error CO5K1
10. In Python _____ block is always executed, whether exception occurs or not?
a. try b. except c. finally d. else CO5K1

Part B

5 x 6 = 30

Answer ALL questions

Each answer should not exceed 400 words or two pages

- 11.a. Explain the use of comments in Python with a sample code. CO1K2
(or)
- 11.b. Describe different data types in Python with suitable examples. CO1K2
- 12.a. Explain the use of if-elif-else with example program. CO2K2
(or)

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|---|-------|
| 12.b. Discuss about the use of string operators in Python with examples. | CO2K3 |
| 13.a. Differentiate between built-in functions and user-defined functions. | CO3K2 |
| (or) | |
| 13.b. Explain the use of lambda function with an example. | CO3K2 |
| 14.a. Discuss string slicing with examples. | CO4K3 |
| (or) | |
| 14.b. Explain the difference between strings, lists, and tuples in Python. | CO4K2 |
| 15.a. What are exceptions? Explain with examples. | CO5K1 |
| (or) | |
| 15.b. Explain the use of try, except, else, and finally blocks with an example. | CO5K2 |

Part C

5 x 12 = 60

Answer ALL questions

Each answer should not exceed 800 words or four pages

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| 16.a. Explain operators in Python and types operators of with examples. | CO1K2 |
| (or) | |
| 16.b. Write a Python program that accepts two numbers from the user and performs addition, subtraction, multiplication, and division. | CO1K4 |
| 17.a. Write a program to find the factorial of a given number using a loop. | CO2K4 |
| (or) | |
| 17.b. Explain the concept of Loop statements with an example and types of loop statement. | CO2K3 |
| 18.a. Write a Python program using a user-defined functions. | CO3K4 |
| (or) | |
| 18.b. Differentiate between parameters and arguments in Python functions. | CO3K2 |
| 19.a. Explain the difference between append(), insert(), and extend() with examples. | CO4K3 |
| (or) | |
| 19.b. The following Python program contains errors related to string operations. Identify and explain each error, and then rewrite the code. | CO4K4 |
| <pre> name = input("Enter your name: ") greeting = "Hello, " + name + "!" print(greeting.upper) print("The third letter in your name is: " + name[2]) print("Your name backwards is: " + name.reverse()) length = len(name) print("Your name has " + length + " characters.") </pre> | |
| 20. a. Explain the concept of exception with arguments using an example. | CO5K3 |
| (or) | |
| 20.b. Differentiate between built-in and user-defined exceptions with examples. | CO5K2 |
