

CERTIFICATE IN MOBILE APPLICATION DEVELOPMENT (CMAD)

Assignments

(January, 2025 & July, 2025 sessions)

BCS-091, BCS-092, BCS-093, BCS-094, BCSL-091

Assignments



**SCHOOL OF COMPUTER AND INFORMATION SCIENCES
INDIRA GANDHI NATIONAL OPEN UNIVERSITY
MAIDAN GARHI, NEW DELHI – 110 068**

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Important Notes

1. Submit your assignments to the Coordinator of your Study Centre on or before the due date. Please refer to <http://www.ignou.ac.in> for latest updates
2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations. For further details, please refer to CMAD Programme Guide.
3. To become eligible for appearing the Term End Practical Examination for the lab courses, it is essential to fulfill the minimum attendance requirements as well as submission of assignments (on or before the due date). For further details, please refer to the CMAD Programme Guide.

Course Code	:	BCS-094
Course Title	:	Programming using Python
Assignment Number	:	CMAD/094/Assignment/2025
Maximum Marks	:	25
Last Dates for Submission	:	30th April, 2025 (for January session) 30th October, 2025 (for July session)

There are Ten questions in this assignment, which carries 25 marks. Each question carries 2.5 marks. Answer all the questions. You may use illustrations and diagrams to enhance the explanations. Include the screen layouts also along with your assignment responses

- Question 1:** Compare Python programming language with other programming languages viz. C, C++, Java
- Question 2:** What are lambda Functions? Write a program in Python to get the average of two numbers using lambda functions; also, write the program without using lambda functions.
- Question 3:** Explain the usage of break, continue and pass statements in Python; support your explanation with a suitable example code for each.
- Question 4:** Discuss the concept of overloading and overriding, with suitable code in Python.
- Question 5:** How is Exception handling performed in Python? Discuss the Syntax errors, Semantic errors and Run time Errors in the context of Python and give a suitable example code for each.
- Question 6:** Differentiate between the mutable and immutable data types. List all mutable and Immutable data types in Python and explain the functionality of each with suitable example code.
- Question 7:** Describe the term Software Testing. How does Software Testing relate to software reliability? Differentiate between Functional testing and Non-functional testing. Also, Discuss the Testing frameworks for Python
- Question 8:** Compare DBMS and RDBMS. What are integrity constraints? Discuss different types of integrity constraints. Also, discuss the SQL CRUD statements used to perform database related activities by using PYTHON and SQLLITE. Give an example code for each statement.
- Question 9:** What is TKinter? Create a GUI using Tkinter that displays “Hello World” message in the window. Discuss the execution of lines of code written by you
- Question 10:** What is Kivy? Discuss the architecture of Kivy with the help of a suitable block diagram.