

ALLAMA IQBAL OPEN UNIVERSITY, ISLAMABAD
(Department of Computer Science)

WARNING

1. **PLAGIARISM OR HIRING OF GHOST WRITER(S) FOR SOLVING THE ASSIGNMENT(S) WILL DEBAR THE STUDENT FROM AWARD OF DEGREE/CERTIFICATE, IF FOUND AT ANY STAGE.**
2. **SUBMITTING ASSIGNMENT(S) BORROWED OR STOLEN FROM OTHER(S) AS ONE'S OWN WILL BE PENALIZED AS DEFINED IN "AIOU PLAGIARISM POLICY".**

Course: Computer Programming (CS-3002)
Level: CS

Semester: Spring, 2026

Please read the following instructions for writing your assignments.

(AD, BS, BEd, MA/MSc, MEd) (ODL Mode)

1. All questions are compulsory and carry equal marks but within a question, the marks are distributed according to its requirements.
2. Read the question carefully and then answer it according to the requirements of the question.
3. Avoid irrelevant discussion/information and reproducing from books, study guide or allied material.
4. Hand written scanned assignments are not acceptable.
5. Upload you typed (in Word or PDF format) assignments on or before the due date.
6. Your own analysis and synthesis will be appreciated.
7. Late assignments can't be uploaded at LMS.
8. The students who attempt their assignments in Urdu/Arabic may upload a scanned copy of their hand written assignments (in PDF format) on University LMS. The size of the file should not exceed 5 MB.

Total Marks: 100

Pass Marks: 50

ASSIGNMENT No. 1

- Q.1 Write a C program to demonstrate the use of variables, data types, and basic input/output operations using printf() and scanf(). **(20)**
- Q.2 Explain the concept of decision-making in C/C++. Write a program to take an integer from the user and determine whether it is even or odd using if-else. **(20)**
- Q.3 Write a C/C++ program to find the largest of three numbers using nested if statements. **(20)**
- Q.4 Explain the use of loops in C/C++. Write a program that prints the multiplication table of any number entered by the user. **(20)**

- Q. 5 Write a C/C++ program to declare an array of 10 integers, input values from the user, and display the values in reverse order. **(20)**

Total Marks: 100

Pass Marks: 50

ASSIGNMENT No. 2

- Q. 1 What is a function in C/C++? Write a user-defined function to calculate the factorial of a number. **(20)**
- Q. 2 Explain call by value and call by reference. Write a C/C++ program to swap two numbers using call by reference. **(20)**
- Q. 3 Write a C/C++ program to demonstrate the use of structures. Create a structure Student with fields for name, roll number, and marks, then input and display the data of 3 students. **(20)**
- Q. 4 What is a pointer? Write a C/C++ program to demonstrate pointer declaration, initialization, and accessing values using pointers. **(20)**
- Q. 5 Write a C/C++ program to read a text file and display its content on the screen. Explain the file-handling functions used. **(20)**