POST GRADUATE DIPLOMA IN COMPUTER APPLICATIONS

(PGDCA_NEW)

PGDCA_NEW/ASSIGN/SEMESTER-I

ASSIGNMENTS

(January – 2026 & July – 2026)

MCS-201, MCS-202, MCS-203, MCSL-204, MCSL-205

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.
2. Assignment submission before due dates is compulsory to become eligible for appearing in corresponding Term End Examinations. For further details, please refer to PGDCA_NEW 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 PGDCA_NEW Programme Guide.
4. The viva voce is compulsory for the assignments. For any course, if a student submitted the assignment and not attended the viva-voce, then the assignment is treated as not successfully completed and would be marked as ZERO.

Course Code	**:**	**MCSL-205**
Course Title	**:**	**C and PYTHON Lab.**
Assignment Number	**:**	**PGDCA_NEW(I)/L-205/Lab_Assignment/2026**
Maximum Marks	**:**	**100**
Weightage	**:**	**30%**
Last Date of Submission	**:**	**30th April, 2026 (for January session)** **31st October, 2026 (for July session)**

There are two questions in this assignment carrying a total of 40 marks. Your Lab Record will carry 40 Marks. Rest 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. Please go through the guidelines regarding assignments given in the Programme Guide for the format of presentation. Submit the screenshots along with the coding and documentation.

Section 1: C Programming Lab

Question 1: Using Structures write an interactive program in C language to create an application program for a small office to maintain the employee's database. This application should be having menu options like **(20 Marks)**

- Creating a New Record
- Reading/Listing of Records
- Modify the record
- Delete the record

Each employee record should have Employee Name, Employee ID, Department Name, Salary, Position, Date of Joining, etc.). The application should be designed user-friendly.

Note: You must execute the program and submit the program logic, sample input and output along with the necessary documentation for this question. Assumptions can be made wherever necessar*y*

Section 2: PYTHON Programming Lab

Question 2: Attempt the following

I) Write Program to perform following tasks **(10 Marks)**

a. Create a database SELECTION_DB
b. Set connection with mysql.connector.connect.
c. Create a table EMP_SELECTION in database SELECTION_DB with following data FIRST_NAME,LAST_NAME,AGE,GENDER,INCOME.
d. change table structure / (add, edit, remove column of a table) at run time
   i. add a column address in the EMP_SELECTIONtable.
   ii. execute SQL *INSERT* statement to create a record into EMP_SELECTION table
   iii. run the query to updates all the records having GENDER as **'M'**, and increase AGE of all the males by one year.
   iv. delete all the records from EMP_SELECTION Table where AGE is less than 18.

II) Write a python code to read a dataset (may be CSV file) and print all features i.e. columns of the dataset. Determine the descriptive statistics i.e. Maximum, Minimum Mean Median, Count, Variance, Standard Deviation etc. of the numeric features like age, salary etc., may be present in the dataset. **(10 Marks)**

Note: You must execute the program and submit the program logic, sample input and output along with the necessary documentation for this question. Assumptions can be made wherever necessary.