MASTER OF COMPUTER APPLICATIONS (MCA_NEW)

ASSIGNMENTS
OF MCA_NEW (2Yrs) PROGRAMME
SEMESTER-III

(January - 2025 & July - 2025)

MCS-224, MCS-225, MCS-226, MCS-227

MCSL-228, MCSL-229

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 Programme Guide of MCA (2Yrs).
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 Programme Guide of MCA (2yrs).
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-228**
Course Title	**:**	**AI and Machine Learning Lab**
Assignment Number	**:**	**MCA_NEW(III)/L-228/Assign/2025**
Maximum Marks	**:**	**100**
Weightage	**:**	**30%**
Last Dates for Submission	**:**	**30th April, 2025 (for January session)** **31st October, 2025 (for July session)**

This assignment has 8 Questions for 40 marks. Answer all the questions. Your Lab Record will carry 40 Marks. Rest 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanation. Please go through the guidelines regarding assignments given in the programme guide for the format of presentation.

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

Q1: Write a Python Program to implement Breadth First Search. **(5 marks)**

Q2: Write a Python Program to implement Min-Max Algorithm. **(5 marks)**

Q3: Write a Python Program to implement the Backtracking approach to solve N Queen's problem **(5 marks)**

Q4: Write a Python Program to implement A* Algorithm. **(5 marks)**

Q5: Write a Python Program to implement Naïve Bayes Algorithm for data classification, choose dataset of your own choice. **(5 marks)**

Q6: Write a Python Program to implement Polynomial Regression on a dataset of your own choice. **(5 marks)**

Q7: Take a Data set as per your choice, implement and execute on different inputs of K-Means clustering algorithm. **(5 marks)**

Q8: Write a Python Program to implement FP tree growth Algorithm on a dataset of your own choice. **(5 marks)**