

# **MASTER OF COMPUTER APPLICATIONS (MCA\_NEW)**

## **ASSIGNMENTS OF MCA\_NEW (2Yrs) PROGRAMME SEMESTER-II**

**(July - 2024 & January - 2025)**

**MCS-218, MCS-219, MCS-220, MCS-221**

**MCSL-222, MCSL-223**



**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.

<b>Course Code</b>	<b>:</b>	<b>MCSL-222</b>
<b>Course Title</b>	<b>:</b>	<b>OOAD and Web Technologies Lab</b>
<b>Assignment Number</b>	<b>:</b>	<b>MCA_NEW(II)/L-222/Assign/2024-25</b>
<b>Maximum Marks</b>	<b>:</b>	<b>100</b>
<b>Weightage</b>	<b>:</b>	<b>30%</b>
<b>Last date of Submission</b>	<b>:</b>	<b>31<sup>st</sup> October, 2024 (For July, 2024 Session)</b> <b>15<sup>th</sup> April, 2024 (For January, 2024 Session)</b>

**Note:** This assignment has two sections. Answer all questions in each section. Each Section is of 20 marks. Your Lab Records will carry 40 Marks (20 Marks for each section). Rest 20 marks are for viva voce. You may use illustrations and diagrams to enhance the explanations. 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. Please go through the guidelines regarding assignments given in the Programme guide for the format of presentation.

### **Section 1: OOAD Lab**

- Q1:** (a) Draw Class Diagram for Online Examination System. Make necessary assumptions required. (5 Marks)
- (b) Draw Deployment Diagram for Online Banking System. Make necessary assumptions required. (5 Marks)
- Q2:** (a) Draw State Chart Diagram for Online Re-registration Fee Payment for IGNOU MCA 3<sup>rd</sup> Semester. Make necessary assumptions required. (5 Marks)
- (b) Draw Sequence Diagram for Online Shopping from an E-commerce Shopping Portal. Make necessary assumptions required. (5 Marks)

### **Section 2: Web Technologies Lab**

- Q1:** Write a program using JSP and JDBC to support editing (address modification, mobile number/ email id update) of MCA 1<sup>st</sup> Semester students of IGNOU. The program should take enrollment number or registered mobile number as input. Make necessary assumptions required. (10 Marks)
- Q2:** Write a program to create simple CRUD (Create, Read, Update, and Delete) application using Spring Boot and Hibernate for Online Registration and Fee Payment for a Workshop on “Web Technologies” to be organized by an IT Training Organization . Make provisions for security management in the program. Make necessary assumptions required. (10 Marks)