MASTER OF COMPUTER APPLICATIONS (MCA) (REVISED)
Term-End Practical Examination
June, 2025

MCSL-036(Set-I) : LAB COURSE (FOR OOAD, SOFTWARE ENGINEERING, ACCOUNTANCY AND FINANCIAL MANAGEMENT)

Time : 3 Hours   Maximum Marks : 100

__Note :__ (i) There are three Sections in this paper.

(ii) Each Section is of one hour duration including the viva-voce.

(iii) Attempt only that Section(s) in which you are not yet successful.

(iv) Answer all the question in each Section.

(v) Section A and Section B carry 25 marks each for the problem(s) and 5 marks for viva-voce. Section C carries 30 marks for problem(s) and 10 marks for viva-voce.

Section—A

(Object Oriented Analysis and Design)

1. A leave management system provides facility to add employee, delete employee, show leave balance, provide facility to apply for leave, approve or reject leave and update leave records.

   Applied leave may be approved or rejected by the head of department. One leave is applied, an employee may modify or cancel his/her leave application.

   You are required to do the following for this system. Make necessary assumptions.

   (a) Draw usecase diagram.   5

   (b) Draw class diagram.   10

   (c) Draw sequence diagram.   10

Section—B

(Software Engineering)

2. Perform the following activities for the problem given in Q. 1 in Section A.

   (a) Draw the DFDs of Level 0 and Level 1 for the system.   7

(b) Write pseudocodes for two processes at Level 1 of DFD. 8

(c) Draw E-R diagram for the system. Convert the E-R diagram into relational tables showing the integrity constraints and relationship between entities. 10

Section—C

(Accountancy and Financial Management)

3. Post the following transactions of a construction company to prepare the Journal, Ledger and Trial Balance : 30

October 2023	Transactions	Amount (in INR)
1st	Received from client (payment of work)	10,00,000
2nd	Paid Salary	5,00,000
5th	Bought raw material for construction site	10,00,000

6th	Paid rent for Truck	20,000
25th	Took a bank loan	25,00,000
28th	Paid rent of office	1,00,000

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