

**MASTER OF COMPUTER APPLICATIONS (Revised)  
(MCA)**

01659

**Term-End Practical Examination  
June, 2016**

**MCSL-036(P)/S3 : 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 for one hour duration including the viva-voce.*
  - (iii) *Attempt only that part(s) in which you are **not successful as yet**.*
  - (iv) *Answer **all** the questions in each section.*
  - (v) *The remaining marks are for viva-voce.*
  - (vi) *Viva-voce marks for Sections A, B and C are 5, 5 and 10 respectively.*

**SECTION A**

**(Object Oriented Analysis and Design)**

1. Consider an Automated Teller Machine (ATM). The user puts a card into a slot and enters a 4-digit PIN. If the PIN is incorrect, the card is ejected. Otherwise, the user may be allowed to do the following operations :
- (a) Input the amount required to be withdrawn
  - (b) The system should not allow to withdraw the amount more than the input amount
  - (c) Withdraw the required amount
  - (d) In addition to the money, the user is given a receipt showing the date, amount withdrawn, account number and account balance after the withdrawal
  - (e) Display the account balance on the screen
  - (f) Quit : The card is ejected
- Perform the following tasks :
- (i) Draw the Use Case Diagram. 5
  - (ii) Define all the classes and draw a Class Diagram. 10
  - (iii) Draw the Sequence and Collaboration Diagram. 10

## **SECTION B**

### **(Software Engineering)**

- 2.** Perform the following tasks for the problem defined in Section A :
- (a) Draw the DFDs at level 0 and level 1. *7*
  - (b) Pick up any two processes and write logic (pseudocode) for these processes. *8*
  - (c) Draw an E-R diagram and its related tables with the integrity constraints. *10*

## SECTION C

### (Accountancy and Financial Management)

3. Post the following transactions of a chemist shop to prepare the Journal, Ledger and the Trial Balance :

30

March 2016	Transactions	Amount (INR)
5 <sup>th</sup>	Started the business with cash	3,00,000
7 <sup>th</sup>	Deposited in the bank	1,00,000
10 <sup>th</sup>	Purchased drugs on credit	1,00,000
15 <sup>th</sup>	Purchased furniture and computer for cash	70,000
20 <sup>th</sup>	Sold drugs for cash	60,000
25 <sup>th</sup>	Sold drugs on credit	30,000
28 <sup>th</sup>	Paid salary	25,000
30 <sup>th</sup>	Paid rent	20,000