

MASTER OF COMPUTER APPLICATIONS (Revised)
(MCA)

00805

Term-End Practical Examination

June, 2018

**MCSL-036(P)/S2 : 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) *Section A and Section B carry 25 marks each for the problem, and 5 marks for viva-voce. Section C carries 30 marks for the problem and 10 marks for viva-voce.*

SECTION A

(Object Oriented Analysis and Design)

1. Online banking is an online payment system that enables customers of a bank in other financial institutions to conduct a range of financial transactions through the financial institution's website.

To access a financial institution's online banking facility, one needs to register with the institution for the service. The customer visits the financial institution's secure website and using the id and password previously set up, enters the online banking facility. The types of financial facilities (transactions) include obtaining account balance, a list of recent transactions, electronic fund transfers, download copies of bank statements, etc. The facility may also enable the customer to order a cheque book, report loss of credit card, stop payment on a cheque, etc.

You are required to do the following tasks :

- (a) Draw the use case diagram. 7
- (b) Define all the classes and draw the class diagram. 8
- (c) Draw the sequence and collaboration diagrams. 10

SECTION B
(Software Engineering)

2. Perform the following activities for problem given in Q1 in Section A :
- (a) Draw the DFDs at level 0 and level 1. 7
 - (b) Write pseudocodes for at least two processes defined at level 1. 8
 - (c) Draw an E-R diagram of the above problem (Q1), 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 software development company to prepare Journal, Ledger and Trial Balance :

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Jan 2018	Transaction	Amount (INR)
5 th	Started the business with cash	3,00,000
10 th	Deposited in the bank	1,50,000
12 th	Purchased furniture and computers on credit	2,00,000
15 th	Paid for designing website of the company in cash	1,50,000
20 th	Sold financial products in cash	2,00,000
25 th	Purchased company's shares	50,000
29 th	Paid salary to staff	50,000
31 st	Paid rent + electricity	40,000