

MASTER OF COMPUTER APPLICATIONS (Revised)
(MCA)

02387

Term-End Practical Examination
December, 2014

**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 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.*

SECTION A

(OOAD)

1. A hospital wants to computerize appointments with doctors. A hospital has a panel of doctors in different specializations (eye, skin, orthopaedics, etc.). An appointment is done through telephone, e-mail, SMS, in person, as well as on-line. There are two shifts (Morning and Evening). Not more than twenty-five patients are given an appointment with one doctor in any shift. If the number exceeds twenty-five, the appointment is fixed for the next day. The system generates daily and weekly reports showing the name of doctors, name of patients and date of appointment.

Perform the following activities for the problem description given above :

- (a) Draw a use-case diagram. 5
- (b) Define all the classes and draw a class diagram. 10
- (c) Draw the sequence and collaboration diagram. Make suitable assumptions, if any. 10

SECTION B

(Software Engineering)

2. Perform the following activities for the description given in Section A (Q1):
- (a) Draw the DFDs at level 0 and level 1. 7
 - (b) Write pseudocodes for at least two processes defined at level 1 DFD. 8
 - (c) Draw an E-R diagram, convert the E-R diagram into relational tables showing the integrity constraints. 10

SECTION C

(Accountancy and Financial Management)

3. Post the following transactions after creating a new software developing Company. Also prepare the journal, ledger and trial balance for the Company. 30

July 2014	Transactions	Amount (₹)
1st	Software development company started with cash	60,000
5th	Opening of a new account in a bank with cash	10,000
7th	Purchased computer and licensed Software with cash	20,000
10th	Purchased furniture for office with cash	10,000
20th	Sold Software to a customer on credit	10,000
25th	Sold Software to customers on cash	15,000
26th	Received cash from customer	10,000
30th	Paid salary	15,000
30th	Paid rent	10,000