

MCA (REVISED)

Term-End Practical Examination

02064

December, 2013

**MCSL-036 : LABORATORY COURSE (FOR OBJECT ORIENTED
ANALYSIS AND DESIGN, SOFTWARE ENGINEERING
AND ACCOUNTING AND FINANCIAL MANAGEMENT)**

Time allowed : 3 hours

Maximum Marks : 100

Note : *There are three sections in this paper. Each section is for one hour duration including viva-voce. Attempt only those section(s) in which you are not successful as yet. Please note that remaining marks are for the viva-voce of the section.*

SECTION-A

(Object Oriented Analysis and Design)

1. A library has registered membership. A registered member is allowed to borrow maximum of 10 books. The members need to pay yearly membership fee and a security deposit. A member can introduce more members. Each book of the library has a accession number which is unique. The book has one or many authors. The library allows searching of books on Book Title, Author name and publisher name. Make suitable assumptions about the system as described above.

Perform the following activities for the 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)

1. Perform the following activities for the description given in "Section-A" (Question 1)
 - (a) Draw the DFDs at level 0 and Level 1 7
 - (b) Write pseudo code for at least two processes defined in Level 1 DFD. 8
 - (c) Draw an E-R diagram. Convert the E-R diagram to relational tables showing the integrity constraints. 10

SECTION - C

(Accountancy and Financial Management)

1. Post the following transactions after creating a new company "Books and Books". Also prepare the journal ledger and trial balance for the company. 30

Dec. 2013	Transaction	Amount (INR)
2 nd	Started Business with Cash	2,00,000
5 th	Deposit in a bank in a new bank account	50,000
7 th	Purchased books from various publishers on cash	1,00,000
8 th	Purchased books from XYZ publisher on credit	50,000
10 th	Sold Books on Cash	50,000
12 th	Sold Books on Cash	75,000
15 th	Sold Books on Credit	75,000
20 th	Paid XYZ publisher	50,000
29 th	Paid Rent	20,000
30 th	Paid Salary	50,000