

MCA (REVISED)
Term-End Practical Examination
December, 2013

02544

**MCSL-036 : LABORATORY COURSE (FOR OBJECT ORIENTED
ANALYSIS AND DESIGN, SOFTWARE ENGINEERING
AND ACCOUNTANCY 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 **viva-voce** of the sections.*

SECTION-A

(Object Oriented Analysis and Design)

1. A study center keeps track of attendance of the students in theory and practical counselling sessions. A student is allotted to a batch of study in a semester. Every batch has a number of students who are given schedule for every course of that semester of students. The attendance is marked in every session of every course and duly stored in the attendance system. The system keep displaying the status of attendance of every student in every subject. You may make suitable assumptions about the system. 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 and convert ER diagram into relational tables showing the integrity constraints. 10

SECTION-C

(Accountancy and Financial Management)

1. Post the following transaction after creating a new company "New Software System". 30
Also prepare the journal ledger and trial balance for the company :

Dec 2013	Transactions	Amount (INR)
5 th Dec	The company started its Business.	2,00,000
7 th Dec	Opened a new Account in the bank using Cash.	1,00,000
10 th Dec	Purchased 10 licenses of Operating system for sale on credit	25,000
10 th Dec	Purchased office furniture on Cash	50,000
12 th Dec	Sold 5 licenses on Cash	30,000
13 th Dec	Paid the company from whom operating systems were purchased by Cash	25,000
15 th Dec	Sold 2 more operating system to "A" on credit	10,000
25 th Dec	Paid Rent	25,000
27 th Dec	Received Cash from "A"	10,000
30 th Dec	Paid Salary	50,000

—————