

**MASTER OF COMPUTER APPLICATION (MCA)**

**Term-End Practical Examination**

**June, 2013**

00668

**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 the *viva-voce* of the sections.

---

**SECTION-A**

**(OBJECT ORIENTED ANALYSIS AND DESIGN)**

1. A school has classes from 1<sup>st</sup> to 10<sup>th</sup>. Each class has four sections namely A, B, C and D. Every section has 20 students. Each section of a class has a class teacher. In addition to class teacher each section has five other subject teachers. Students are evaluated by teachers of their sections and every year their results are declared. The result of a student is declared only if he/she has attended 80% of classes in the school.

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 sequence and collaboration diagram make suitable assumptions if any | 10 |

**SECTION-B**  
**(SOFTWARE ENGINEERING)**

1. Perform the following activities for the description of the school given in the "Section-A" (Q1).
  - (a) Draw the DFDs at level 0 and level 1 7
  - (b) Write pseudo codes 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 integrity constraints 10

SECTION-C

(ACCOUNTANCY AND FINANCIAL MANAGEMENT)

1. Post the following transaction after creating a new company named "e-World". Also prepare the journal ledger and trial balance for the company. 30

May 2013	Transactions	Amount (INR)
1 <sup>st</sup>	Started Business in the name "e-World" with cash	29,500
3 <sup>rd</sup>	Deposit in the bank in a new Bank account	1,500
5 <sup>th</sup>	Purchased goods on cash from "A"	10,000
7 <sup>th</sup>	Sold goods to "X" on credit	5,000
10 <sup>th</sup>	Sold goods to "Y" on cash	5,000
12 <sup>th</sup>	Sold goods to "X" on credit	3,000
15 <sup>th</sup>	Received cash from "X"	7,000
30 <sup>th</sup>	Paid Rent	5,000
30 <sup>th</sup>	Paid Salary	8,000