

**MCA (REVISED)**

**Term-End Practical Examination**

00944

**December, 2013**

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

*Time allowed : 3 hours*

*Maximum Marks : 100*

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**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.*

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**SECTION-A**

**(Object Oriented Analysis and Design)**

1. A university enrolls students in an undergraduate programme based on an entrance test followed by an interview. Students apply for admission in a particular session, the university checks the eligibility of the candidates (10 + 2 in this case) and sends the hall tickets to the students. On the basis of marks obtained in the entrance examination a merit list is created for the interview. The final selection is based on 75 % marks in entrance and 25% in the interview. Make suitable assumptions for the given 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 sequence and collaboration diagram. Make suitable assumptions, if any. 10

**SECTION-B**

**(Software Engineering)**

1. Perform the following activities for the description of the admission process given in the "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 integrity constraints. 10

**SECTION -C**

**(Accountancy and Financial Management)**

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

January 2014	Transaction	Amount (INR)
3 <sup>rd</sup>	Started Business with Cash	5,00,000
5 <sup>th</sup>	Deposit in Bank in a new bank account	2,00,000
7 <sup>th</sup>	Purchased one server on Credit from "XYZ"	3,00,000
8 <sup>th</sup>	Purchased 5 computers on cash	1,50,000
10 <sup>th</sup>	Sold the Server on Cash	3,50,000
11 <sup>th</sup>	Sold 3 computer on Credit to "A"	1,20,000
15 <sup>th</sup>	Paid "XYZ" the amount of Server	3,00,000
20 <sup>th</sup>	Received amount from "A"	1,20,000
29 <sup>th</sup>	Paid Rent	50,000
30 <sup>th</sup>	Paid Salary	75,000