

**MASTER OF COMPUTER APPLICATIONS (Revised)**  
**(MCA)**

**Term-End Practical Examination**

**December, 2017**

00973

**MCSL-036(P)/S2 : LAB COURSE (FOR OOAD, SOFTWARE ENGINEERING,  
ACCOUNTANCY AND FINANCIAL MANAGEMENT)**

*Time : 3 Hours*

*Maximum Marks : 100*

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- Note :**
- (i) *There are three sections in this paper.*
  - (ii) *Each section is for **one hour** duration including the 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) *Viva-voce marks for Sections A, B and C are 5, 5 and 10 respectively.*
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**SECTION A**

**(Object Oriented Analysis and Design)**

1. An online grocery purchase site maintains a database of vendors in every city, selling all types of items for daily needs. Customers first place the order through online mode, indicating place, address and items to be purchased. They also pay online after placing the orders and get a receipt. The orders are placed by the site to the nearest vendors. Vendors verify the orders, and deliver the items to the customers. Customers verify the items and acknowledge it online or sign it physically. There is also a feedback mechanism to be filled up by the customers about services. Before placing the orders, customers have to download the App for the portal.

Perform the following activities for the problem description given above :

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

**SECTION B**  
**(Software Engineering)**

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

## SECTION C

### (Accountancy and Financial Management)

3. Post the following transactions for an online grocery site company and prepare the Journal, Ledger and Trial Balance :

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August 2017	Transaction	Amount (INR)
5 <sup>th</sup>	Started the business with cash	5,00,000
10 <sup>th</sup>	Deposited in the bank	2,00,000
15 <sup>th</sup>	Purchased h/w, s/w on credit	1,00,000
17 <sup>th</sup>	Purchased furniture, stationery on cash	70,000
20 <sup>th</sup>	Advertisement in a newspaper on credit	50,000
23 <sup>rd</sup>	Earned through business	1,50,000
28 <sup>th</sup>	Salary to the staff	1,00,000
30 <sup>th</sup>	Paid rent	50,000