MASTER OF COMPUTER APPLICATIONS (Revised)

(MCA)

03674   **Term-End Practical Examination**

December, 2014

MCSL-036(P)/S1 : LABORATORY COURSE (FOR OOAD, SOFTWARE ENGINEERING, ACCOUNTANCY AND FINANCIAL MANAGEMENT)

Time : 3 Hours   *Maximum Marks : 100*

Note :   *(i)*   *There are **three** sections in this paper.*

       (ii)   *Each section is for one hour duration including 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)   *The remaining marks are for viva-voce.*

SECTION A

(OOAD)

1. A book-shop owner wants to get computerized system developed to maintain records of sales of books, magazines and stationery and generate monthly reports of sales of different items and total sales. Books and magazines are also sent to libraries through post, for which payment is made through cheque. If the payment does not reach in time (within 15 days), the system should send reminders automatically. The system should also maintain records of books and magazines ordered by the book-shop to the supplier and its delivery status (received or not).

Perform the following activities for the problem 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.   10

SECTION B

(Software Engineering)

2. Perform the following activities for the problem description given in Q1 (Section A) :

   (a) Draw the DFDs at level 0 and level 1.   *7*

   (b) Write pseudocodes for at least two processes defined at level 1 of DFD.   *8*

   (c) Draw an E-R diagram, convert the E-R diagram into relational tables showing the integrity constraints.   *10*

SECTION C

(Accountancy and Financial Management)

3. Post the following transactions after creating a new book-shop. Also prepare the journal, ledger and trial balance. *30*

March 2014	Transaction	Amount (INR)
1st	Start the book-shop business	40,000
2nd	Deposit in the Bank	20,000
3rd	Purchased computer on credit	30,000
14th	Purchased software on cash	5,000
15th	Purchased books, magazines and stationery	10,000
16th	Sold books, magazines on cash	9,000
20th	Sold books on cash	5,000
29th	Paid rent	3,000
30th	Paid salary	6,000

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