MASTER OF COMPUTER APPLICATIONS (Revised)

(MCA)

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Term-End Practical Examination

June, 2017

MCSL-036(P)/S2 : LAB 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 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)   *Section A and Section B carry 25 marks each for the problem, and 5 marks for viva-voce. Section C carries 30 marks for the problem and 10 marks for viva-voce.*

SECTION A

(Object Oriented Analysis and Design)

1. Online radio and TV program schedule system of an institution allows faculty of the schools of studies to log in (user name and password is generated during the first time log-in) and selecting the time slot (day, time and month) and also specifying topics for participating on Radio and TV programmes. It also allows to check the status of time slots to authentic users, print reports on different criteria (for example, how many topics on computers). The system should also provide online certification about various activities. There is also a feedback mechanism about the online system. For example, poor response, not friendly system, etc.

    You are required to do the following tasks :

    (a) Draw the use case diagram.   7

    (b) Define all the classes and draw the class diagram.   8

    (c) Draw the sequence and collaboration diagrams.   10

SECTION B

(Software Engineering)

2. Perform the following activities for Q1 given in Section A :

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

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

    (c) Draw an E-R diagram of the above problem (Q1), convert the E-R diagram into relational tables showing the integrity constraints and relationship between entities.   *10*

SECTION C

(Accountancy and Financial Management)

3. Post the following transactions of a software development company : 30

Feb 2017	Transaction	Amount (INR)
5th	Started the business with cash	2,00,000
10th	Purchased S/W, computers and furniture on credit	3,00,000
15th	Purchased ACs through cash	50,000
20th	Advertisement cost (on credit) (about the company)	10,000
25th	Sold software	1,00,000
27th	Paid salary to staff	80,000
28th	Paid rent + electricity bill	30,000

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