

MASTER OF COMPUTER APPLICATIONS (Revised)
(MCA)

01923

Term-End Practical Examination

December, 2016

**MCSL-036(P)/S3 : 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) The remaining marks are for viva-voce.
 - (vi) Viva-voce marks for Sections A, B and C are 5, 5 and 10 respectively.

SECTION A

(Object Oriented Analysis and Design)

1. An airlines ticket booking company wants a computerized system to manage booking, cancellation and delivery of tickets to passengers. When a passenger calls for booking/cancellation of a ticket, the dealing clerk verifies the request of a passenger and books an economical ticket by comparing the cost of a ticket of different airlines. The ticket is delivered within 24 hours to a passenger through a courier. If the ticket is not available on that day, the passenger is informed through an e-mail.

The system should answer all queries related to booking/cancellation of tickets of passenger by the passenger's name and date of booking/cancellation. It should also generate different kinds of daily reports about the number of tickets sold, cancelled and pending payment.

Perform 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 diagram. 10

SECTION B
(Software Engineering)

2. Perform the following tasks for the problem stated in Section A :
- (a) Draw the DFDs at level 0 and level 1. 7
 - (b) Write pseudocodes for two processes defined at DFD level 2. 8
 - (c) Draw an E-R diagram and related tables showing the integrity constraints. 10

SECTION C

(Accountancy and Financial Management)

3. Post the following transactions of an airlines ticket booking company to prepare the Journal, Ledger and Trial Balance :

30

September 2016	Transaction	Amount (₹)
1st	Started the business with cash	2,50,000
5th	Deposited in the bank	50,000
10th	Purchased furniture (cash)	40,000
15th	Purchased computer with software on credit	80,000
16th	Paid in advance for Internet connection (cash)	10,000
20th	Sold tickets (cash)	70,000
25th	Deposited in the bank	50,000
27th	Paid salary to staff	40,000
30th	Paid rent	20,000