

**Master of Computer Applications
(Revised) (MCA)
Term-End Examination
December, 2018**

**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 yet successful.
 - (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.
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Section-A

(Object Oriented Analysis and Design)

1. Online food delivery company provides a range of facilities to customers through the company's website.

To access the on-line facility of the company, one needs to first download the company's apps to get registered. The following on-line facilities are available :

- (i) On-line order of foods.
- (ii) Rating of restaurants in terms of quality of foods.
- (iii) Information about the costs of food.
- (iv) Delivery status of orders.
- (v) Booking facility for tables at restaurants.
- (vi) Payment facility through credit card/debit card.
- (vii) Feedback facility.

Perform the following activities for the problem described above :

- (a) Draw the use-case diagram. 5
- (b) Define all the classes and draw a class-diagram. 10
- (c) Draw the sequence and collaboration diagrams. 10

Section-B

(Software Engineering)

2. Perform the following activities for the problem given in Q. 1 in Section A :

- (a) Draw the DFDs at level 0 and level 1. 7
- (b) Write pseudocodes for 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 on-line food delivery company to prepare Journal, Ledger and Trial Balance : 30

Nov., 2018	Transactions	Amount (INR)
5th	Started the business with cash	4,00,000.00
10th	Deposited in the bank	2,00,000.00
15th	Items purchased on credits (Computer, S/W)	1,50,000.00
18th	Items purchased in cash (Furniture)	50,000.00
20th	Received on-line payment for the delivery service	1,00,000.00
26th	Received payment in cash	50,000.00
28th	Paid salary	75,000.00
30th	Paid rent	50,000.00