

**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. On-line Cab Book Company provides a range of facilities to customers through the Company's Website. To access on-line facilities, one needs to first download the Company's app and get registered to get the ID and password. The following facilities are available :

- (i) 24 hours car booking facility.
- (ii) Payment through debit card/credit card/cash.
- (iii) The current status of arrival of the cab (distance/time).
- (iv) Information about a driver (during experience, rating).
- (v) Discount facility to customers.

You are required to do the following :

- (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. 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 any *two* processes defined at level 1 of DFD. 8
- (c) Draw an E-R diagram of the above problem (Q. 1, Section A).
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 company to prepare the Journal, Ledger and Trial Balance : 30

Oct., 2018	Transactions	Amount (INR)
5th	Started the on-line car business with cash	4,50,000.00
10th	Deposited in the bank	2,50,000.00
15th	Items purchased on credit (Computer, S/w and furniture) in cash	1,00,000.00
20th	Did the business through on-line payment	1,50,000.00
25th	Did the business in cash	50,000.00
26th	Paid salary (bank transfer)	60,000.00
30th	Paid rent in cash	35,000.00