

No. of Printed Pages : 3 **MCSL–036(Set-III)**

**MASTER OF COMPUTER
APPLICATIONS (MCA)**

Term-End Practical Examination

December, 2024

**MCSL–036(Set-III) : 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 session is for one-hour duration including the viva-voce.*
- (iii) *Answer all the questions in each Section.*
- (iv) *Section A and Section B carry 25 marks each for the problem(s) and 5 marks for viva-voce. Section C carries 30 marks for the problem(s) and 10 marks for viva-voce.*
- (v) *Attempt only that Section(s) in which you are not yet successful.*
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Section—A**(Object Oriented Analysis and Design)**

1. An online shopping platform allows users to browse products, add them to their shopping cart, and make purchases through an online payment system. After the purchase, an order confirmation and invoice are sent via e-mail. The platform also handles product returns and refunds.

Perform the following tasks for the problem described above :

- (a) Draw the usecase diagram for the system. 5
- (b) Define all the classes and draw the class diagram. 10
- (c) Draw the sequence and collaboration diagrams for a customer making an online purchase. 10

Section—B**(Software Engineering)**

2. Based on the system described in Section A, perform the following tasks :
 - (a) Draw the DFD at level 0 and level 1 for the system. 7
 - (b) Write pseudocode for two processes at level 1 of the DFD. 8

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

Section—C

(Accountancy and Financial Management)

3. The following transactions are recorded for an e-Commerce Company :

2023 March	Transaction Description	Amount (INR)
1	Started business with cash	15,00,000
5	Purchased inventory (electronics) on credit	5,00,000
10	Online sale of electronics	7,00,000
15	Paid for website development	1,00,000
20	Paid salary to employees	1,25,000
25	Paid office rent	75,000

Perform the following tasks : 30

Post the transactions to the Journal, prepare the ledger, and generate the Trial Balance.

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