

**Code: 9F00503**

MCA V Semester Supplementary Examinations May 2018  
**OBJECT ORIENTED ANALYSIS & DESIGN (USING UML)**  
(For students admitted in 2011 (LC), 2012, 2013, 2014 & 2015 only)

Time: 3 hours

Max. Marks: 60

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) Define modeling. Explain why do we model and what do we achieve through modeling.  
(b) What is unified modeling language? Write short notes on basic relational building blocks of UML. Give the diagrammatic representation wherever necessary.
- 2 (a) What are the essential elements that consist in a UML class diagram?  
(b) With an example, explain class diagram.
- 3 (a) How do you model an object diagram?  
(b) Write short notes on stereotypes.
- 4 Draw a sequence diagram for an ATM transaction.
- 5 What is an activity diagram? Draw an activity diagram of ticket vending machine.
- 6 What is state transition diagram? Considering the below case study; draw the state transition diagram.  
**Case Study:** You need to develop a web-based application in such a way that user can search other users, and after getting search complete, the user can send the friend request to other users. If the request is accepted, then both users are added to the friend list of each other. If one user does not accept the friend request. The second user can send another friend request. The user can also block each other.
- 7 Write short notes on:  
(a) Component diagram.  
(b) Deployment diagram.
- 8 (a) What is a pattern? Mention the advantages of well-structured pattern.  
(b) Using an artifact diagram, explain the unified library application.

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