

**Code: 9F00503**

**MCA V Semester Supplementary Examinations May 2019**  
**OBJECT ORIENTED ANALYSIS & DESIGN (USING UML)**

(For 2009, 2010, 2011, 2012 (LC), 2013, 2014, 2015 & 2016 admitted batches only)

Time: 3 hours

Max. Marks: 60

Answer any FIVE questions  
All questions carry equal marks

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- 1 (a) "We build models so that we can better understand the system we are developing". Justify with good analogies.  
(b) Briefly describe the extensibility mechanisms in UML.
- 2 How do you identify and model the classes of a system? Apply the techniques to identify and model the classes of an online bus reservation system.
- 3 What do you mean by a package? Discuss in detail about modeling packages in UML.
- 4 Explain in detail about any two kinds of interaction diagrams between classes and/or objects with suitable examples.
- 5 (a) Explain the use of a use-case diagram to model the context of a system with an example.  
(b) What are the uses of swimlanes in an activity diagram? Explain with an example.
- 6 (a) What do you mean by an exception? How do you model exceptions in UML? Give an example.  
(b) Explain about modeling of substates of a given state in UML.
- 7 (a) Discuss the use of component diagram in modeling tables, files and documents in a complex software system.  
(b) Explain the use of deployment diagrams with examples.
- 8 (a) Explain the modeling of a design pattern in UML.  
(b) Draw the use-case diagram of the unified library application system in the content of issue and return of books via a membership card.

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