

**R09****Code No: F3503****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****MCA V Semester Examinations, August - 2017****OBJECT ORIENTED ANALYSIS AND DESIGN (USING UML)****Time: 3hrs****Max.Marks:60****Answer any five questions****All questions carry equal marks**

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1. What is the UML? Discuss the importance of modeling and principles of modeling? [12]
2. State and explain various types of relationships in the UML. Give suitable example to each of them. [12]
3. What are the common modeling techniques for class diagram? Explain them with suitable examples. [12]
- 4.a) Discuss the significance of the object diagrams.  
b) Define the term usecase. Explain about usecase description with a suitable example. [6+6]
5. What are the common modeling techniques of use case diagrams? Explain them with suitable examples. [12]
- 6.a) Distinguish between state chart diagram and activity diagram.  
b) Discuss how to model time in UML give suitable example. [6+6]
- 7.a) What is an event? Discuss various types of events and how to model them in UML.  
b) Explain about artifact diagrams. [6+6]
8. Write short notes on the following:  
a) Component diagram  
b) Types and roles  
c) Packages. [12]

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