

Code No: **R41052****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, March/April - 2016****UML AND DESIGN PATTERNS****(Computer Science and Engineering)****Time: 3 hours****Max. Marks: 75**

**Answer any FIVE Questions**  
**All Questions carry equal marks**

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- 1 Discuss about different diagrams in UML. [15]
- 2 a) What are the common modeling techniques of object diagram? Explain. [8]  
b) Draw the class diagram for the ATM machine. [7]
- 3 a) What is use case and actor? Explain about various relationships in use case diagram. [8]  
b) What are different kinds of states? Explain. [7]
- 4 a) Discuss about the deployment diagram. [8]  
b) Differentiate between deployment and component diagrams. [7]
- 5 a) How to select Design pattern? Discuss. [8]  
b) Explain about the catalogs of Design patterns. [7]
- 6 a) What is singleton? Explain the importance of the singleton. [8]  
b) In design pattern encapsulation method is used? Discuss. [7]
- 7 a) What are the uses of the façade pattern? Discuss. [8]  
b) Give structure for the Flyweight pattern. [7]
- 8 a) For large-scale object oriented applications, which design pattern is helpful? Explain. [8]  
b) What is strategy? What are the advantages of strategy pattern? Explain. [7]