

Code No: **R41052****R10****Set No. 1****IV B.Tech I Semester Supplementary Examinations, October/November- 2017****UML AND DESIGN PATTERNS****(Computer Science and Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions****All Questions carry equal marks****\*\*\*\*\***

- 1 a) Discuss about different views of UML. [10]  
b) What is object oriented modeling? Discuss. [5]
- 2 Discuss about different diagram in structural modeling with examples. [15]
- 3 a) Draw the use case diagram for the library system. [8]  
b) What is event and state machine? Discuss about different events. [7]
- 4 a) What are the common modeling techniques for the component diagram? Explain. [10]  
b) Explain the terms node and artifact. [5]
- 5 a) How Design patterns are used for solving design problems? Explain. [8]  
b) Describe the Design pattern with examples. [7]
- 6 a) How do we write general-purpose code that will be able to instantiate any type of object that may appear in the stream? [8]  
b) What is builder? Give examples for builder pattern? [7]
- 7 a) Which design pattern can be used to extend (decorate) the functionality of a certain object at run-time, independently of other instances of the same class? Discuss. [8]  
b) Discuss about decorator pattern with example. [7]
- 8 a) What is chain of responsibility? How to implement the interfaces and objects in it? Discuss. [8]  
b) Explain about the iterator pattern with example. [7]