Code No: **R41052**

# R10

**Set No. 1**

**IV B.Tech I Semester Supplementary Examinations, Oct/Nov - 2018**
## 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 | a) | What is Unified Modeling Language? What is the importance of using UML for modeling systems? Explain. | [8] |
| | b) | Explain in detail about various phases of Unified Software Development Process. | [7] |
| 2 | a) | Explain in detail about the types of relationships in UML modeling. | [8] |
| | b) | What is an UML object diagram? Explain with an example. | [7] |
| 3 | a) | Who can be an Actor in Use-case diagram? How do you identify actors in Use case diagrams? Explain about the three kinds of actors in Use case diagrams. | [8] |
| | b) | What is a State chart diagram? Draw the state chart diagram for Hospital Management System. | [7] |
| 4 | a) | Draw a neat Component diagram for Online Shopping cart. | [8] |
| | b) | Explain the common modeling techniques for Component diagram. | [7] |
| 5 | a) | What is meant by Design Pattern? Give a brief on the significant goals of Design Patterns? | [8] |
| | b) | How design patterns solve the challenges lying in applying reusable software? Explain. | [7] |
| 6 | a) | Discuss various implementation issues in builder design patterns. | [8] |
| | b) | Write the motivation of Abstract Factory and its applications. | [7] |
| 7 | a) | What are the intent, motivation and applicability of adapter patterns? | [8] |
| | b) | What is the intent of Façade pattern? Discuss motivation and applicability of Façade pattern. | [7] |
| 8 | a) | Discuss in detail about the intent and motivation of Interpreter design pattern with an example. | [8] |
| | b) | Discuss benefits and drawbacks of the Strategy pattern. | [7] |