

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

- 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]