Code No: L0522 **R07** **Set No. 1**

IV B.Tech. II Semester Regular/Supplementary Examinations, April, 2012
DESIGN PATTERNS
(Common to Computer Science & Engineering and Information Technology)

Time: 3 Hours **Max Marks: 80**

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

1. a) Define design pattern. Explain about specifying object implementations.
   b) What are common causes of redesign? Explain.

2. a) Discuss about Lexi's supporting multiple window systems problem.
   b) Explain Lexi's Document structure in detail.

3. a) Briefly describe creational patterns.
   b) Explain implementation of virtual constructor.

4. a) Briefly explain about Bridge design pattern.
   b) Define structural pattern. Explain sample code and known uses of Adapter design pattern.

5. a) Discuss about implementation and sample code of Flyweight design pattern.
   b) How to attach additional responsibility to an object dynamically? Explain.

6. a) Discuss about participants, collaborations, consequences and implementation of Command Design pattern.
   b) Explain in detail about consequences and implementation of Iterator design pattern.

7. a) Briefly discuss about Mediator design pattern.
   b) What are the steps involved in Observer design pattern for implementation? Explain.

8. a) What can you do if you are interested in patterns?
   b) Describe patterns in Software.
   c) Explain about refactoring.
   d) Discuss about Alexander's pattern languages.

Code No: L0522 **R07** **Set No. 2**

IV B.Tech. II Semester Regular/Supplementary Examinations, April, 2012
DESIGN PATTERNS
(Common to Computer Science & Engineering and Information Technology)

Time: 3 Hours **Max Marks: 80**

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

1. a) How to select a Design Pattern? Explain.
   b) Write 23 design patterns and their intents.

2. Explain in detail about the Lexi's spelling checking and Hyphenation problem.

3. a) Explain implementation and sample code of Builder design pattern.
   b) Briefly discuss about Prototype design pattern.

4. a) Describe consequences and known uses of Adapter design pattern.
   b) Explain about structure, participants and consequences of Composite design pattern.

5. a) How to provide a unified interface to a set of interfaces in a subsystem? Explain.
   b) Explain about Proxy design pattern's implementation and sample code.

6. a) How to provide a way to access the elements of an aggregate object sequentially without exposing its underlying representation? Explain.
   b) Briefly explain about Chain of responsibility design pattern.

7. a) Discuss about Strategy design pattern in detail.
   b) Describe Sample code of Visitor design pattern.

8. Explain the following:
   a) Alexander's pattern languages
   b) An adjunct to existing methods
   c) A brief history of design patterns
   d) Refactoring

Code No: L0522 **R07** **Set No. 3**

IV B.Tech. II Semester Regular/Supplementary Examinations, April, 2012
DESIGN PATTERNS
(Common to Computer Science & Engineering and Information Technology)

Time: 3 Hours **Max Marks: 80**

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

1. a) Describe organization of design pattern catalog. Draw a diagram to show relationships among design patterns.
   b) What is a Design Pattern? How to use a design pattern?

2. a) Explain Lexi's supporting multiple look-and-feel standards.
   b) Describe recursive composition and Glyphs.

3. a) Explain about Singleton design pattern.
   b) How to provide an interface for creating families of related or dependent objects without specifying their concrete classes? Explain.

4. a) Write about consequences and implementation issues of Bridge design pattern.
   b) Describe sample code and known uses of Adapter design pattern.

5. a) Discuss about Flyweight design pattern.
   b) Explain sample code and known uses of Façade design pattern.

6. a) Describe implementation of Iterator design pattern.
   b) Explain about sample code of Interpreter design pattern

7. a) Briefly discuss about Strategy design pattern
   b) Explain about Template method design pattern in detail.

8. a) What to expect from Design Pattern? Explain.
   b) Discuss about the Pattern community.

Code No: L0522 **R07** **Set No. 4**

IV B.Tech. II Semester Regular/Supplementary Examinations, April, 2012
DESIGN PATTERNS
(Common to Computer Science & Engineering and Information Technology)

Time: 3 Hours **Max Marks: 80**

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

1. How design problems solve Design problems? Explain in detail.

2. a) Describe Lexi's user operations in detail.
   b) Explain about Lexi's embellishing the user interface.

3. a) Which design pattern lets a class defer instantiation to subclasses? Explain.
   b) Explain in detail about Prototype Design Pattern.

4. a) What are the consequences of Adapter? Explain.
   b) What are the main issues to consider when implementing the composite pattern? Explain.

5. a) Describe consequences, implementation and sample code of Decorator design pattern.
   b) Discuss about applicability, structure, participants and consequences of Flyweight design pattern.

6. a) Explain about behavioral patterns. Give sample code of Chain of responsibility design pattern.
   b) Explain implementation and sample code of Command design pattern.

7. a) Briefly discuss about State design pattern.
   b) Explain about consequences and implementation of Observer design pattern.

8. Explain the following:
   a) Refactoring
   b) Patterns in Software
   c) A common design vocabulary
   d) History of design pattern