

R09

Code No: 57054

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, March - 2017

DESIGN PATTERNS

(Computer Science and Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Marks**

- 1.a) How to select and use a design pattern? Explain with an example.
- b) What are common causes for redesigning the design patterns? Explain. [8+7]
- 2.a) Give a detailed note on organizing the design pattern catalog.
- b) Write notes on the design patterns in small talk MVC. [8+7]
- 3.a) What is the intent of bridge pattern? Explain the structure and applicability of this pattern.
- b) Explain sample code of factory method design pattern. [8+7]
- 4.a) Explain the structure and participants of prototype with an example.
- b) What are the known uses and related patterns of facade pattern? Explain. [8+7]
- 5.a) Explain the structure and participants of Decorator pattern.
- b) What is the motivation for Iterator pattern? Explain. [8+7]
- 6.a) Explain the structures, participants, and collaborations of proxy.
- b) What are the benefits and liabilities of the observe pattern? Explain. [8+7]
- 7.a) Discuss about the implementation issues in singleton design pattern.
- b) Describe applicability, structure and participants of adapter pattern. [7+8]
- 8.a) The Template Method pattern makes the method call in a special way - Explain.
- b) How does the Decorator pattern help to decompose the problem? What does each Decorator object wrap? Explain. [7+8]

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