Code No: 117CF

R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, March - 2017
DESIGN PATTERNS
(Common to CSE, IT)

Time: 3 Hours   **Max. Marks: 75**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer all questions in Part A. Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

Part- A (25 Marks)

1.a) Describe about pattern name. [2]
  b) What do you mean by consequences? [3]
  c) Write about document structure. [2]
  d) Explain briefly about "Monoglyph". [3]
  e) Describe the motivation for Bridge Pattern. [2]
  f) What are all the Participants for Proxy Pattern? [3]
  g) What are the Consequences of Chain of Responsibility Pattern. [2]
  h) Write the Pattern name and Classification of Observer Pattern. [3]
  i) What can we expect from a Design Pattern? [2]
  j) Write about Applicability of State Pattern. [3]

Part-B (50 Marks)

2.a) How to use design patterns? Explain in detail.
  b) Explain about selection of a design pattern. [5+5]

OR

3. How a Design pattern solves the design problem? Illustrate with an example.[10]

4. Discuss the Motivation, Structure, Collaborations and Implementation of the following Patterns:
   a) Abstract Factory   b) Prototype. [5+5]

OR

5. Explain in detail about "supporting multiple window systems". [10]

6. Discuss the Intent, Applicability, Sample code, and Known uses of the following Patterns:
   a) Adapter   b) Flyweight [5+5]

OR

7. Discuss the pattern name, Applicability, Consequences and Related Patterns of the following Patterns
   a) Bridge   b) Proxy [5+5]

8.   Explain in detail about Command pattern.   [10]

OR

9.   Describe in detail about Iterator Pattern.   [10]

10.   Explain the Motivation, Participants, Structure and Implementation of following Patterns
      a) State   b) Template Method.   [5+5]

OR

11.   Discuss briefly about the following Patterns:
      a) Visitor   b) Strategy.   [5+5]