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]

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