

Code No: 117CF

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]