

Code No: 127CF

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, November/December - 2018

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) Define Design Pattern. [2]
- b) What are the uses of design pattern? [3]
- c) What is the structure of document? [2]
- d) Explain briefly about consequences of prototype. [3]
- e) Describe the structure of Adaptor Pattern. [2]
- f) List the Consequences of Façade Pattern. [3]
- g) What are all the Consequences of Interpreter Pattern? [2]
- h) Write the Pattern name and Classification of Mediator Pattern. [3]
- i) What is the internet of strategy pattern? [2]
- j) Write about Applicability of Visitor Pattern. [3]

Part-B (50 Marks)

- 2.a) Describe how a Design Pattern solves the Design Problems. [5+5]
  - b) Explain about Design Patterns in Smalltalk MVC. [5+5]
- OR
- 3.a) Describe about Catalog of Design Patterns.
  - b) How to organize the Catalog of Design Pattern? [5+5]
4. Discuss the Motivation, Structure, Collaborations and Implementation of the following Patterns.  
a) Builder b) Singleton. [5+5]
- OR
- 5.a) Can we use Abstract factory? Explain briefly.
  - b) Explain about Multiple window system. [6+4]
6. Discuss the Pattern name, Applicability, Consequences and Related Patterns of the following Patterns:  
a) Composite b) Decorator [5+5]
- OR
7. Discuss the Participants, Collaborations, Sample Code, and Related Patterns of the following:  
a) Adaptor b) Façade [10]

8. Explain in detail about Command Pattern.

[10]

OR

9. Describe in detail about Mediator Pattern.

[10]

10. Explain the Motivation, Participants, Structure and Implementation of following Patterns

a) Strategy

b) Visitor.

[5+5]

OR

11. Discuss in detail about the following Patterns.

a) State

b) Template Method.

[5+5]

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