R13

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
B. Tech IV Year I Semester Examinations, November/December - 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)	What is design pattern?	[2]
b)	Explain design patterns in Smalltalk MVC.	[3]
c)	Draw the structure Factory Method.	[2]
d)	Explain about recursive composition.	[3]
e)	Write intent of Proxy pattern.	[2]
f)	Write motivation of Wrapper pattern.	[3]
g)	What are known uses of Iterator pattern?	[2]
h)	Write benefits and drawbacks of Mediator pattern.	[3]
i)	What is the intent of Strategy pattern?	[2]
j)	Describe patterns in software.	[3]

PART-B
(50 Marks)

2.a)	What are some common causes of redesign? Explain.	
b)	How to use a design pattern? Explain in detail.	[5+5]

OR

3.a)	Discuss about toolkits and frameworks.	
b)	Draw a diagram to describe design pattern relationships.	[5+5]

4.a)	Describe formatting in Lexi's design.	
b)	What are consequences of Builder pattern? Explain Builder pattern implementation.	[5+5]

OR

5.a)	Explain about encapsulating the analysis in Lexi's design.	
b)	Write sample code of Prototype pattern.	[5+5]

6.a)	Explain the sample code of Flyweight pattern.	
b)	Discuss about implementation issues of Decorator pattern.	[5+5]

OR

7.a)	Write about motivation and consequences of Façade pattern.	
b)	Write sample code of Composite pattern.	[5+5]

8.a) Explain about Mediator pattern.
   b) Explain about motivation of Mediator pattern.   [5+5]

OR

9.a) Briefly discuss about Memento pattern.
   b) Describe implementation of Command pattern.   [5+5]

10.a) Write some of the benefits and liabilities of the Visitor pattern.
   b) Discuss about the pattern community.   [5+5]

OR

11. Explain the following:
    a) Discussion of behavioral patterns.
    b) Template method pattern.   [5+5]

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