

B. Tech. Sem - VIII (Computer Engg.) (2014 COURSE) (CBCS) :
WINTER - 2018

SUBJECT: ELECTIVE – IV DESIGN PATTERNS

Day: Thursday
Date: 15/11/2018

W-2018-2623

Time: 02.30 PM TO 05.30 PM
Max Marks. : 60

N.B. :

- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Assume suitable data, if necessary.
- 4) Use of non-programmable calculator is allowed.
- 5) Draw neat and labeled diagrams wherever necessary.

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- Q.1 a)** What are the different between a static class and a singleton class? (05)
b) What is Adapter Pattern? Give an example of Adapter Pattern. (05)

OR

- Q.1 a)** Explain composite Entity pattern? (05)
b) Explain MVC architecture with an example? (05)

- Q.2 a)** What is multiple window systems? What about the windowing system itself? (05)
b) Explain with example: (05)
 i) Spelling checking
 ii) Hyphenation

OR

- Q.2 a)** Explain document structure? What is the need of document structure? (05)
b) What is document Editor in Design Pattern? (05)

- Q.3 a)** Explain applicability, structure and participants for singleton design pattern with example. (05)
b) Discuss of creational pattern? Explain any one example of creations patterns. (05)

OR

- Q.3 a)** Explain factory methods in details with example. (05)
b) Briefly explain prototype design pattern? When prototype pattern is to be used. (05)

- Q.4 a)** Briefly explain decorator pattern with an example. (05)
b) Write and explain implementation and design issues and advantages of Bridge pattern. (05)

OR

- Q.4 a)** Compare and contrast the structural and behavioral patterns. (05)
b) Write the intent, motivation and applicability for proxy design pattern. (05)

- Q.5 a)** What is interpreter pattern? Give an example where interpreter pattern in used? (05)
b) What is behavioral pattern? Enlist behavioral pattern and explain any one. (05)

OR

- Q.5 a)** Briefly discuss about the steps how to select a behavioral pattern. (05)
b) Explain : (05)
 i) Chain of responsibility command
 ii) Template method

- Q.6** Write a case study about ATM machine. (10)

OR

- Q.6** Write a case study about traffic control system. (10)

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