Code: 9A05801

B.Tech IV Year II Semester (R09) Advanced Supplementary Examinations June/July 2016
DESIGN PATTERNS
(Common to CSE, IT & CSSE)

Time: 3 hours   Max. Marks: 70

Answer any FIVE questions
All questions carry equal marks

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1   (a)   Draw a class diagram and explain the notations.
    (b)   Explain what is foundation class in C++.

2   (a)   What is a design pattern? How to describe a design pattern?
    (b)   Give the catalogue of design patterns.

3   (a)   Explain the design problems of a designing document editor.
    (b)   Explain the document structure of editor.

4   (a)   Explain creational patterns.
    (b)   What is the motivation for a builder? Explain its applicability.

5   (a)   Explain how to implement a bridge pattern using class adaptor pattern.
    (b)   Explain the composite design pattern giving its structure.

6   (a)   Explain the motivation for a façade. What is its applicability?
    (b)   Give the structure of a flyweight. Who are the participants of fly weight?

7   (a)   Explain the behavioral pattern 'observer' giving its structure, applicability and implementation.
    (b)   Explain the behavioral pattern 'visitor' giving its structure, applicability and implementation.

8   Write short notes on the following:
    (a)   Consequence of state pattern.
    (b)   Applicability of template method.
    (c)   Structure of a visitor pattern.

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