R13

Code: 13A05701

## B.Tech IV Year I Semester (R13) Supplementary Examinations June 2018

## **SOFTWARE ARCHITECTURE & DESIGN PATTERNS**

(Common to CSE & IT)

Time: 3 hours Max. Marks: 70

## PART - A

(Compulsory Question)

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1 Answer the following:  $(10 \times 02 = 20 \text{ Marks})$ 

- (a) What is a strategy pattern?
- (b) What are the object oriented concepts?
- (c) Compare aggregation and acquaintance.
- (d) Distinguish between inheritance and composition.
- (e) What is the purpose of proxy pattern?
- (f) What are the consequences of bridge pattern?
- (g) Define intent, participants of Iterator pattern.
- (h) Define intent, participants of interpreter pattern.
- (i) Define document structure.
- (j) Differentiate compositor and composition.

## PART - B

(Answer all five units,  $5 \times 10 = 50 \text{ Marks}$ )

[ UNIT - I ]

2 Explain various architecture styles and heterogeneous architectures.

OF

3 What is shared information system? Explain architectural structures of shared information system.

UNIT – II

4 Explain intent, structure, applicability, and participants of prototype pattern.

OR

5 Explain in detail about the factory method pattern.

[UNIT - III]

- 6 (a) Compare façade and flyweight patterns.
  - (b) Explain the significance of proxy patterns with an example.

OR

- 7 (a) Explain structural pattern decorator in detail.
  - (b) Explain structural pattern flyweight in detail.

(UNIT – IV

8 Explain behavioral patterns Command and Observer in detail.

OF

9 Explain behavioural patterns Memento and Iterator in detail.

UNIT – V

- 10 (a) Explain the role of formatting in creation of a document editor.
  - (b) How can we configure windows and window wimps? Explain in detail.

OR

- 11 (a) Discuss in detail about recursive composition.
  - (b) What is the relation between encapsulation and window class? Explain.

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