

Code No: R1641052

**R16**

**Set No. 1**

**IV B.Tech I Semester Supplementary Examinations, July/Aug - 2021**  
**SOFTWARE ARCHITECTURE AND DESIGN PATTERNS**  
**(Computer Science and Engineering)**

**Time: 3 hours**

**Max. Marks: 70**

*Question paper consists of Part-A and Part-B*

*Answer ALL sub questions from Part-A*

*Answer any FOUR questions from Part-B*

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**PART-A(14 Marks)**

1. a) Draw the diagram of architecture business cycle. [3]
- b) State the participants of ATAM. [2]
- c) Draw the Structure of Abstract Factory creational pattern. [3]
- d) List out the participants of Bridge structural pattern. [2]
- e) Write the known uses and Related patterns of Interpreter behavioral pattern. [2]
- f) Write a note on document formatting. [2]

**PART-B(4x14 = 56 Marks)**

2. a) Discuss about architecture patterns, reference models and reference architectures in detail [7]
- b) Justify why software architecture is important. [7]
3. a) Explain the following terms of CBAM  
i) Architectural Strategies ii) Utility-Response Curves [7]
- b) Discuss in detail about future developments in software architecture. [7]
4. a) Outline step by step approach of using a Design Pattern. [7]
- b) Summarize the Builder Creational Pattern in detail. [7]
5. a) Describe about Consequences and Implementation of Adapter structural pattern. [7]
- b) Explain about motivation and structure of Composite structural pattern. [7]
6. a) State the consequences and implementation of Chain of responsibility in behavioral pattern? [7]
- b) Explain about the motivation and structure of Iterator behavioral pattern [7]
7. a) Discuss in detail about a case study related to product line development. [7]
- b) Explain Multiple Look-and-Feel Standards in detail. [7]

