

Code No: **R1641052**

R16

Set No. 1

IV B.Tech I Semester Advanced Supplementary Examinations, May - 2022
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

PART-A (14 Marks)

1. a) Define Architectural Pattern. [2]
b) What do you mean by Wrappers? [3]
c) What is a Design pattern? [2]
d) Give the intent of Proxy pattern. [3]
e) What is Command Pattern? [2]
f) Define Compositor class. [2]

PART-B (4x14 = 56 Marks)

2. a) Discuss the architectures are influenced by the developing organization. [7]
b) List and explain difference between a reference architecture and an architectural pattern? [7]
3. a) Explain in detail about ATAM phases and their characteristics [7]
b) Give an example for importance of Cost Modeling [7]
4. Write step-by-step approach to applying a design pattern effectively. [14]
5. a) Explain in detail clients work with subsystems in the Façade pattern. Explain [7]
b) Write the differences between Structural pattern and Behavioral patterns. [7]
6. a) Describe the implementation issues of memento pattern [7]
b) Outline the issues to be considered while applying Observer pattern. [7]
7. a) Explain the Spelling Checking design problem in detail. [7]
b) Discuss air traffic control case Study in designing for high availability [7]

