

Code No: 156FT**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year II Semester Examinations, August/September - 2024****SOFTWARE ARCHITECTURE AND DESIGN PATTERNS****(Computer Engineering – Software Engineering)****Time: 3 Hours****Max. Marks: 75****Note:** i) Question paper consists of Part A, Part B.

ii) Part A is compulsory, which carries 25 marks. In Part A, Answer all questions.

iii) In Part B, Answer any one question from each unit. Each question carries 10 marks and may have a, b as sub questions.

PART – A**(25 Marks)**

- 1.a) What is Software Architecture? [2]
- b) Write a short note on Reconstructing Software Architecture. [3]
- c) Define ATAM. [2]
- d) Write a short note on Analyzing Architectures. [3]
- e) What are Software Product Lines? [2]
- f) Write a short note on OTS. [3]
- g) What are Patterns? [2]
- h) Write a short note on Builder. [3]
- i) Explain Chain of Responsibility in brief. [2]
- j) Write a short note on Visitor. [3]

PART – B**(50 Marks)**

2. Discuss in detail about Architectural Structures and Views. [10]
- OR**
3. Explain in detail about Quality Attributes. [10]
4. Discuss in detail about Architecture Evaluation. [10]
- OR**
5. Write a detailed note on CBAM. [10]
6. Discuss in detail about Software Architecture in Future. [10]
- OR**
7. Explain in detail the Advantages and Challenges in using OTS. [10]
8. Discuss in detail about Organizing Catalogs and role in solving design problems. [10]
- OR**
- 9.a) Explain in detail about Factory Method.
- b) Discuss about Abstract Factory in detail. [5+5]
10. Explain about Interpreter in detail. [10]
- OR**
11. Explain in detail the Case Study of Celsius Tech in Product Line Development. [10]