

Code: 20IT6601

III B.Tech - II Semester – Regular Examinations - APRIL 2024**SOFTWARE ARCHITECTURE AND DESIGN
PATTERNS
(HONORS in INFORMATION TECHNOLOGY)**

Duration: 3 hours

Max. Marks: 70

Note: 1. This paper contains questions from 5 units of Syllabus. Each unit carries 14 marks and have an internal choice of Questions.

2. All parts of Question must be answered in one place.

BL – Blooms Level

CO – Course Outcome

			BL	CO	Max. Marks
UNIT-I					
1	a)	Explain the role of design pattern elements in design of a particular problem.	L2	CO1	7 M
	b)	Describe in detail about the essential elements of the design pattern.	L2	CO1	7 M
OR					
2		Explain details about Catalog of Design pattern & organizing the Design pattern.	L2	CO1	14 M
UNIT-II					
3	a)	What are the key components and criteria outlined for the functional requirements specification?	L2	CO3	7 M
	b)	Write the use case to add a new book in library management system.	L3	CO3	7 M

OR					
4	a)	What are the classes and major subsystems of Library system during the analysis phase?	L3	CO3	7 M
	b)	Explain defining conceptual classes and relationships with example.	L2	CO2	7 M
UNIT-III					
5	a)	Draw and explain the structure of a composite pattern.	L3	CO2	7 M
	b)	Mention the uses and related patterns of bridge design pattern.	L2	CO3	7 M
OR					
6		What is Decorator Design pattern? Explain with example.	L2	CO3	14 M
UNIT-IV					
7	a)	Discuss in detail about the applicability of a command pattern.	L2	CO3	7 M
	b)	Explain the related patterns for chain of responsibility pattern.	L2	CO1	7 M
OR					
8	a)	List and explain the implementation issues of Iterator pattern.	L2	CO3	7 M
	b)	Explain the role of Template Method in design of a particular pattern.	L2	CO3	7 M
UNIT-V					
9	a)	Consider an application of Case study - Document editor. How various patterns support design problems? Explain.	L5	CO4	7 M

	b)	Explain supporting and multiple look-and-feel standards.	L2	CO3	7 M
OR					
10	a)	Explain Embellishing the user interface.	L2	CO4	7 M
	b)	Explain supporting Multiple Window Systems.	L2	CO4	7 M