Code: 20CS4601A

III B.Tech - II Semester – Regular Examinations – JUNE 2023

DESIGN PATTERNS
(COMPUTER SCIENCE & ENGINEERING)

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)	How a Design pattern solves the design problem? Illustrate with an example.	L3	CO1	7 M
	b)	What are the different ways in which patterns and frameworks share similarities and in which they differ? Discuss.	L2	CO1	7 M
OR					
2	a)	How to use design patterns? Explain in detail.	L2	CO1	7 M
	b)	Name the patterns that are included in catalog of design patterns along with their intents.	L2	CO1	7 M
UNIT-II					
3	a)	What are the implementation issues of prototype design pattern? Discuss.	L2	CO2	7 M

	b)	What are consequences of Builder pattern? Explain Builder pattern implementation.	L2	CO2	7 M
OR					
4	a)	Write a sample code for builder pattern.	L2	CO2	7 M
	b)	Discuss about singleton design pattern.	L2	CO2	7 M

UNIT-III

5	a)	Discuss in detail about the participants and consequences of Composite pattern.	L2	CO3	7 M
	b)	When can be a Flyweight pattern effectively be applicable? Explain.	L2	CO3	7 M
OR					
6	a)	Discuss the Intent, Applicability, Sample code, and Known uses of the following Patterns: i) Adapter ii) Flyweight.	L2	CO3	7 M
	b)	Discuss about implementation issues of Decorator pattern.	L2	CO3	7 M

UNIT-IV

7	a)	Describe in detail about Iterator Pattern.	L2	CO4	7 M
	b)	Explain the Motivation, Participants, Structure and Implementation of following Patterns i) State ii) Template Method.	L2	CO4	7 M
OR					
8	a)	Discuss briefly about the following Patterns: i) Visitor ii) Strategy.	L2	CO4	7 M
	b)	Write about the structure and participants of Interpreter pattern.	L2	CO4	7 M

		UNIT-V			
9	a)	Explain in detail about "supporting multiple window systems".	L4	CO5	7 M
	b)	Explain Document Structure and formatting case study.	L4	CO5	7 M
		OR			
10	a)	Explain Embellishing the User Interface case study.	L4	CO5	7 M
	b)	Explain about Supporting Multiple Look and-Feel Standards case study.	L4	CO5	7 M