USN	1	S	G			I	S			

SAPTHAGIRI COLLEGE OF ENGINEERING
Department of Information Science and Engineering
Internal Assessment –I

Subject: Software Architecture & Design patterns
Semester/Section: VII 'A' & 'B'
Duration: 1.5 hours

Sub Code: **15IS72**
Max Marks: 30
Date: 22-09-2018

Note: **Answer any two full questions, choosing one from each module**

Question No.	Questions	Marks	BLT	CO's
	Module-1			
1 a.	Define and describe design pattern in detail	6M	L1,L2	CO1
b.	Explain at least ten different types of design pattern.	5M	L2	CO1
c.	Explain the key concepts of object oriented design?	4M	L2	CO1
	OR			
2 a.	Explain how design pattern solve design problem?	10M	L1,L2	CO1
b.	Explain the different approaches of selecting a pattern.	5M	L1,L2	CO1
	Module-2			
3 a.	Define use case analysis. Explain the use case to **register new member**, for **issuing books** and **place a hold on books** of library system.	8M	L1,L2	CO2
b.	Explain the sequence diagram for adding books and renewing books of library system.	7M	L2	CO2
	OR			
4 a.	Illustrate the relationship between the software classes with a neat diagram	5M	L2	CO2
b.	Explain the Class diagram for library, book and catalog class.	10M	L2	CO2

CO1: To Learn How to add functionality to designs while minimizing complexity.

CO2: To Understand what code qualities are required to maintain to keep code flexible.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

USN	1	S	G			I	S			

SAPTHAGIRI COLLEGE OF ENGINEERING
Department of Information Science and Engineering
Internal Assessment –II

Subject:Software Architecture & Design patterns
Semester/Section: VII 'A' & 'B'
Duration: 1.5 hours

Sub Code: **15IS72**
Max Marks: 30
Date: 23-10-2018

Note: **Answer any two full questions, choosing one from each module**

Question No.	Questions	Marks	BLT	CO's
	Module-3			
1 a.	Explain the Bridge design pattern in detail.	10M	L1,L2	CO3
b.	Describe the Structure, Consequences and Implementation of Composite design pattern.	5M	L2	CO3
	OR			
2 a.	Explain the Applicability, Structure and Participants of Decorator design pattern.	5M	L1,L2	CO3
b.	Explain with example Façade design pattern.	10M	L1,L2	CO3
	Module-4			
3 a.	Explain Flyweight design pattern with structure, collaborations and Consequences.	7M	L1,L2	CO3
b.	Explain MVC Architecture pattern with neat diagram.	8M	L2	CO4
	OR			
4 a.	Define System. Explain the different phases of designing a subsystem.	8M	L1,l2	CO4
b.	Draw the sequence of operations for adding a label and drawing a line	7M	L2	CO4

CO3:To Understand the common design patterns.

CO4:To explore the appropriate patterns for design problems.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057

USN	1	S	G			I	S			

SAPTHAGIRI COLLEGE OF ENGINEERING
Department of Information Science and Engineering
Internal Assessment –III

Subject: Software Architecture & Design patterns
Semester/Section: VII 'A' & 'B'
Duration: 1.5 hours

Sub Code: **15IS72**
Max Marks: 30
Date: 24-11-2018

Note: **Answer any two full questions, choosing one from each module**

Question No.	Questions	Marks	BLT	CO's
	Module-4			
1 a.	Write the implementation code for Model class and Controller class	8M	L1,L2	CO4
b.	Define Command pattern. Explain Undoing operation in detail with neat diagram	7M	L2	CO4
	OR			
2 a.	Explain the Mechanism to Add new feature using Composite pattern.	9M	L2	CO4
b.	Write a note on Pattern based solution.	6M	L1,L2	CO4
	Module-5			
3 a.	Explain steps involved in Java Remote Method Invocation in detail.	10M	L2	CO5
b.	Illustrate the basic Architecture of Client/Sever system with neat diagram	5M	L2	CO5
	OR			
4 a.	Explain State Transition diagram for i)Add book ii)issuing book iii)Renewing book.	8M	L2	CO5
b.	Draw the Class diagram for Library Servlet. Explain the structure of Servlets in the web based Library system.	7M	L2	CO5

CO4: Able to apply the design principles in the design of object oriented systems.

CO5: To demonstrate an understanding of distributed objects using object oriented system.

Principal
Sapthagiri College of Engineering
14/5, Chikkasandra, Hesaraghatta Main Road
Bengaluru - 560 057