Course Code: 23CS5D01

BONAM VENKATA CHALAMAYYA INSTITUTE OF TECHNOLOGY & SCIENCE

(AUTONOMOUS)

III - B.Tech I-Semester Regular Examinations (BR23), Nov/Dec - 2025

Object Oriented Analysis and Design (CSE)

Time: 3 hours Max. Marks: 70

Question Paper consists of Part-A and Part-B
*Answer **ALL** the question in **Part-A and Part-B***

PART–A (10X2 = 20M)

		Marks	CO	BL
1. a)	Define the inherent complexity of software	(2M)	CO1	BL2
b)	List functional requirements of SNS case study	(2M)	CO1	BL1
c)	What is modelling? Outline the importance of modelling.	(2M)	CO2	BL2
d)	Name the non functional requirements of TTMS case study	(2M)	CO2	BL1
e)	List the Common Modelling Techniques of class Diagrams	(2M)	CO3	BL1
f)	What is cryptanalysis?	(2M)	CO3	BL1
g)	List the Common Modelling Techniques of Use cases	(2M)	CO4	BL1
h)	List the requirements of Vacation Tracking system.	(2M)	CO4	BL2
i)	Define Events and Signals.	(2M)	CO5	BL3
j)	Name the requirements for Weather Monitoring station	(2M)	CO5	BL2

PART–B (5X10 = 50M)

2	Explain the structure of complex systems with suitable examples.	10(M)	CO1	BL2
	(OR)			
3	Case Study Essay: Describe the architecture of a Satellite-Based Navigation System, highlighting the role of complexity in its design.	10(M)	CO1	BL4

4a.	Explain the architecture of UML with neat sketch	05(M)	CO2	BL2
	(OR)			
5.	Design the use case diagram for Train Traffic Management system case study	10(M)	CO2	BL4

6	Explain Object diagram and its common modelling Techniques.	10(M)	CO3	BL2
	(OR)			
7	Design class diagram to model architecture of AI based cryptanalysis System	10(M)	CO3	BL4

8.	Explain Interaction diagrams with examples and discuss their significance in system design.	10(M)	CO4	BL3
	(OR)			
9	Illustrate the behavioral modeling of a Vacation Tracking Web Application using Use Case and Activity diagrams.	10(M)	CO3	BL4

10	Define State chart diagram. Explain Common modelling Techniques for State chart diagrams	10(M)	CO5	BL2
	(OR)			
11.	Explain primary use cases for Weather Monitoring system with a neat diagram	10(M)	CO5	BL3

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