

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

MCA DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

First Semester

Master of Computer Applications

MC4102/PMCT2402 - Object Oriented Software Engineering

Regulations – 2021/2024

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	Define software engineering.	L1	1	2
2.	Define incremental model.	L1	1	2
3.	List out the three parts of OMT modeling.	L1	2	2
4.	Define data flow diagram.	L1	2	2
5.	List the essential elements of design pattern.	L1	3	2
6.	Compare cohesion and coupling.	L2	3	2
7.	Compare and contrast between functional and non functional testing.	L2	4	2
8.	Identify any two challenges of software maintenance.	L2	4	2
9.	What are the needs of OOS estimation?	L1	5	2
10.	List out the software quality metrics.	L1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a i Illustrate software development and its challenges.	L2	1	8
	ii Explain prototyping model and its advantages.	L2	1	8
	Or			
	b i Compare and contrast waterfall model, spiral model and iterative model.	L2	1	8
	ii Explain agile process model and its pros and cons.	L2	1	8
12.	a i Explain the characteristics of software requirement specification documents.	13	2	8
	ii Discuss the features of requirements elicitation.	L3	2	8
	Or			

	b i	Design use case diagram for withdrawal of money from ATM System.	L3	2	8
	ii	Draw the sequence diagram for login operation in ATM model.	L3	2	8
13.	a	Interpret the outline of GRASP and GOF design pattern.	L2	3	16
		Or			
	b	Compare and contrast between static and dynamic object modeling.	L2	3	16
14.	a	Analyze Integration testing and write any two approaches of integration testing.	L4	4	16
		Or			
	b	Analyze regression testing and write the techniques for the selection of test cases for regression testing.	L4	4	16
15.	a	Examine how Lorenz and Kidd method is used to calculate the estimation of size and effort.	L4	5	16
		Or			
	b	Classify and categorize the different types of risk and write the principle of risk management.	L4	5	16