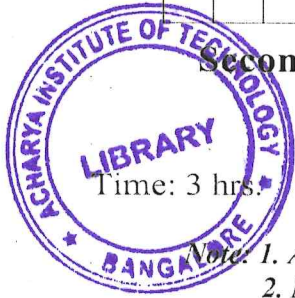


CBCS SCHEME

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MMC204



Second Semester MCA Degree Examination, June/July 2026 Software Engineering

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1				M	L	C
Q.1	a.	Define Software Engineering? Explain in detail.		10	L2	CO1
	b.	With a neat diagram briefly explain all the perspective process models.		10	L2	CO1
OR						
Q.2	a.	Demonstrate the waterfall model and spiral model with real time example.		10	L2	CO1
	b.	Explain the principles of agile software development.		10	L2	CO1
Module – 2						
Q.3	a.	Explain the process of requirements gathering and analysis? Why is it important in software development?		10	L2	CO1
	b.	Define Formal system specification? How do Finite State Machines (FSM) aid in formal specification? Illustrate with example.		10	L2	CO1
OR						
Q.4	a.	Explain the concept of Petri nets? And Discuss their role in modeling concurrent system?		10	L3	CO2
	b.	Explain class diagram and interaction diagrams. How do they contribute to understanding of system structure and behavior?		10	L3	CO2
Module – 3						
Q.5	a.	Explain : i) coupling and cohesion ii) abstraction and modularity		10	L3	CO2
	b.	Explain : i) Model-view-controller ii) Pipe and Filter		10	L3	CO2

OR

Q.6	a.	What is layered architecture? Explain the difference between Layered & Tiered Architecture.	10	L3	CO2
	b.	What is user interface design and why is it important in software engineering?	10	L3	CO2

Module – 4

Q.7	a.	What is Software Testing? Why is it important in the Software Development Life Cycle?	10	L3	CO3
	b.	State the differences between Black Box and White Box Testing.	10	L3	CO3

OR

Q.8	a.	What is System Testing? Explain types of System Testing.	10	L3	CO3
	b.	What is Model Checking? Explain the steps involved in Model Checking.	10	L3	CO3

Module – 5

Q.9	a.	Describe Project Scheduling and its techniques.	10	L4	CO4
	b.	Explain the different stages in the Deployment Pipeline.	10	L4	CO4

OR

Q.10	a.	What is DevOps? Explain its importance in modern software development.	10	L4	CO4
	b.	List and explain various Deployment Tools with examples.	10	L4	CO4
