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END SEMESTER EXAMINATION, EVEN SEM 2022-23

Time : 3 hours Program Name : MCA Course Name : Software Engineering

Total Marks : 100 Semester : IV Course Code : SOC666

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Note: All questions are compulsory. No student is allowed to leave the examination hall before the completion of the time.

Q. No 1	Attempt Any Four Parts, Each Question Carries 5 Marks,	CO	BL
(a)	How do software components contribute to modular software design?	CO 1	3
(b)	Differentiate between Information Modeling and Data Flow Diagrams (DFDs).	CO 1	4
(c)	Define software process. State the important features of a process.	CO 1	2
(d)	What are the four types of changes are encountered during the support phase?	CO 1	3
(e)	Compare and contrast Modularization and Design Structure Charts.	CO 1	4

Q. No 2	Attempt Any Four Parts. Each Question Carries 5 Marks.	СО	BL
(a)	What are the different phases in the software development life cycle (SDLC)?	CO 2	1
(b)	Evaluate the impact of poor software quality on user experience and business outcomes.	CO 2	5
(c)	List the major distinction between user requirements and system requirements?	CO 2	3
(d)	Define all the phases of SEI-CMM model with appropriate examples.	CO 2	3
(e)	List all the steps of ISO 9000 used in the Software engineering.	CO 2	4

Q. No 3	Attempt Any Four Parts. Each Question Carries 5 Marks.	СО	BL
(a)	Apply the principles of the Waterfall Model to develop a simple web application.	CO 3	3
(b)	Evaluate the impact of inadequate performance testing on user experience.	CO 3	5
(c)	Analyze the benefits and challenges of using Decision Tables for requirement specifications.	CO 3	4
(d)	Draw a translating diagram for analysis model into a software design. Brief about each translations	CO 3	4
(e)	Define cyclometric complexity. Explain with the help of an example.	CO 3	2

Q. No 4	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Analyze the benefits and challenges of using Compliance with Design and Coding	CO 4	4
	Standards in Static Testing.		
(b)	Explain the software testing objectives and its principles in detail.	CO 4	4
(c)	Differentiate between include and extend relationships in a Use Case Diagram.	CO 4	4
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O. No 5	Attempt Any Two Parts. Each Question Carries 10 Marks.	CO	BL
(a)	Explain about CASE repository functions in detail.	CO 5	5
(b)	Design a Control Flow Graph for a given program and calculate its Cyclomatic Complexity.	CO 5	6
(c)	Design a Static Testing strategy that incorporates Formal Technical Reviews, Walkthroughs, and Compliance with Design and Coding Standards.	CO 5	6

-----End of Paper-----

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