CBCS SCHEME

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22MCA23

Second Semester MCA Degree Examination, Dec.2023/Jan.2024
Software Engineering

Time: 3 hrs. 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.	Explain frequently asked questions about software engineering.	10	L2	CO1
	b.	Explain software engineering code of ethics and professional practice.	06	L1	CO2
	c.	Differentiate between generic products and customized products.	04	L2	CO1
		OR			
Q.2	a.	Differentiate between Waterfall and Incremental Model.	08	L1	CO3
	b.	Discuss the disadvantages of prototyping.	04	L1	CO3
	c.	Explain the phases in Rational Unified Process along with a neat diagram.	08	L2	CO1
		Module – 2			
Q.3	a.	Explain extreme programming practices in detail.	10	L1	CO3
	b.	Explain Scrum Management Process along with a neat diagram.	10	L1	CO3
		OR			
Q.4	a.	With a neat diagram, explain classification of non-functional requirement. Develop a non-functional requirement for MHC-PMS.	10	L1	CO3
	b.	Develop a scenario for MHC-PMS.	05	L2	CO4
	c.	Explain different types of checks that can be carried on in requirement validation.	05	L4	CO5
		Module – 3			
Q.5	a.	Explain Object Oriented Themes.	06	L2	CO1
	b.	Discuss the purposes served by model.	04	L2	CO4
	c.	Design a sample class model for windowing system. List the problems with the same.	10	L2	CO4
		OR			
Q.6	a.	Design a class diagram to show ordering and sequence. Differentiate between bags and sequence.	04	L2	CO4
	b.	Explain advanced class concepts with necessary diagrams.	08	L2	CO4
	c.	Differentiate between association, aggregation and composition.	08	L2	CO4
		Module – 4			
Q.7	a.	Explain context model for MHC-PMS system. Develop an activity diagram for "involuntary detention of patient" and explain the same.	10	L2	CO4
	b.	Design a class diagram for MHC-PMS system to demonstrate association, generalization and aggregation.	10	L2	CO4
		OR			

Q.8	a.	Explain system context model and interaction model in object oriented design weather station example.	10	L2	CO4
	b.	Explain four essential elements of design pattern defined by 'Gang of Four'. Explain the same taking observer pattern.	10	L4	CO5
		Module – 5			
Q.9	a.	Explain component testing in detail.	10	L2	CO1
	b.	Explain User Testing along with a neat diagram showing "The Acceptance Testing Process".	10	L2	CO1
		OR			
Q.10	a.	Explain Software Evolution Process along with a neat diagram.	10	L4	CO5
	b.	Along with a neat diagram, explain software reengineering process and discuss the advantages of the same.	10	L4	CO5

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