Course: 20CS440-A - SOFTWARE ENGINEERING

Event: UG-EVEN-22

USN | | | | | | | | | | | |

20CS440

JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU

IV Semester BE Degree Semester End Examination

Department of Computer Science and Engineering

SOFTWARE ENGINEERING

Duration: 3 Hours | Max. Marks: 100

NOTE: Answer TEN questions.
Questions in PART-A is compulsory and PART-B has internal choice.

PART – A

Q.NO	CO	CD	PI	QUESTION	MARKS
Q1	1	L1	1.6.1	What is a process? Briefly explain generic process framework activities and also list umbrella activities.	10
Q2.	2	L2	1.6.1	What are the elements of analysis Model? With UML activity diagram, Explain the process of eliciting requirements.	10
Q3.	3	L2	2.6.4	What is refactoring? When the software is refactored? Distinguish between (i) Cohesion and Coupling (ii) Abstraction and Refinement.	10
Q4.	4	L4	2.8.2	What is Unit Testing? What are its considerations? Illustrate unit testing environment and its procedure.	10
Q5.	5	L1	1.6.1	What is Software Project scheduling? List and explain the basic principles that guide software project scheduling.	10

PART – B

Q.NO	CO	CD	PI	QUESTION	MARKS
Q6	1	L2	1.6.1	With neat sketch, Explain waterfall model. When this model is suitable? List the problems associated with waterfall model.	10
				OR	
Q7	1	L1	1.6.1	What is Agility? List the different principles of agility.	10
Q8	2	L3	2.8.2	What is Requirement Engineering? Why it is needed? Discus the different tasks involved in Requirement Engineering.	10

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				OR	
Q9	2	L1	2.8.2	What is a use case? List the questions that should be answered by a use case. Write use case diagram for home security function of '*Safe Home' system.*	10
Q10	3	L2	1.6.1	Mention the three characteristics that serve as a guide for the evaluation of a good design. With neat sketch explain the process of Translating the requirements model into the design model.	10
				OR	
Q11	3	L2	2.8.2	What is Software Architecture? How it is going to help software engineer? Discuss data flow architecture style in detail.	10
Q12	4	L2	1.6.1	List and briefly explain McCall's software quality factors.	10
				OR	
Q13	4	L2	2.6.5	Differentiate between Testing and Debugging. Explain the debugging process.	10
Q14	5	L2	2.8.2	List and briefly explain (i) Categorization of software project Stakeholders (ii) Key traits of an effective project manager.	10
				OR	
Q15	5	L2	1.6.1	*What are the Direct measures* and Indirect measures of the software product? With relevant example, Explain the size-oriented software metrics.	10

Course Outcome(CO): At the end of the course the students will have the ability to		**Cognitive Domain(CD)**
CO–1	Explore the concepts of software process models	**L1:**Recall
CO–2	Analyze and model software requirements	**L2:** Understand
CO–3	Apprise system design concepts and process	**L3:** Apply
CO–4	Apprehend and apply software testing strategies	**L4:**Analyze
CO–5	Comprehend software project management activities	

Performance Indicator (PI):

1.6.1	Apply engineering fundamentals
2.6.4	Compare and contrast alternative solution/methods to select the best methods
2.6.5	Compare and contrast alternative solution processes to select the best process.
2.8.2	Analyze and interpret the results using contemporary tools.

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