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"20CS440

JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU

Department of *Computer Science and Engineering*

IV Semester: Event 1

SOFTWARE ENGINEERING

Duration (In hrs): 1 Hr Date: 06/05/2023 Max. Marks: 20

NOTE: Question No.1 is Compulsory. Answer Either Q.No.2 or 3.

Q.NO	CO	CD	PI	QUESTION	MARKS
1.	CO–1	L1	1.3.1	Explain the Generic Framework activities and the Umbrella activities.	10
2.	CO–1	L1	1.3.1	With necessary diagram discuss in detail the Waterfall Model with its advantages and disadvantages.	10
				OR	
3.	CO–1	L2	2.2.1	Define task set. With an example explain the same for requirements gathering phase for a complex project.	10

Course Outcome: At the end of the course the students will have the ability to	
CO–1	Explain concepts of software engineering and software process models.
CO–2	Analyze the software requirements.
CO–3	Explain system design concepts and process.
CO–4	Apply software testing strategies.
CO–5	Demonstrate an ability to use the Agile techniques and tools necessary for engineering practices.

PI's	
1.3.1	Demonstrate competence in engineering fundamentals
2.2.1	Demonstrate an ability to formulate a solution plan and methodology for an engineering problem

Cognitive Domains	
L1	Knowledge
L2	Comprehension
L3	Application
L4	Analysis

-- End ---

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"20CS440"

JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU

Computer Science and Engineering

IV Semester: Test 2

Software Engineering

Duration (In hrs): 1 hour Date: 14-06-2023 Max. Marks: 20

NOTE: Question 1 is compulsory. Question 2 and 3 has internal choice.

Q.NO	CO	CD	PI	QUESTION	MARKS
1.	CO-2	L3	2.2.1	Develop an Use case for safe home monitoring system.	10
2.	CO-2	L1	1.3.1	a) Explain the Rules of thumb that should be followed while creating analysis model. b) With the neat diagram explain the Elements of analysis model.	5+5=10
				OR	
3.	CO-2	L1	1.3.1	Briefly discuss the various tasks involved in requirement engineering. start, getting...	10

Course Outcome: At the end of the course the students will have the ability to	
CO–1	Explain concepts of software engineering and software process models
CO–2	Analyze the software requirements.
CO–3	Explain system concepts and process.
CO–4	Apply software testing strategies.
CO–5.	Demonstrate an ability to use the agile techniques and tools necessary for engineering practices

PI's	
1.3.1	Demonstrate competence in engineering fundamentals
2.2.1	Demonstrate an ability to formulate a solution plan and methodology for an engineering problem

Blooms Taxonomy	
L1	Remembering
L2	Understanding
L3	Applying
L4	Analyzing

--- End ---

USN	0	1	J	C	E	2	1	C	S	1	2	1

20CS440

JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY UNIVERSITY, MYSURU

Computer Science and Engineering

IV Semester: Test 3

Software Engineering

Duration (in hrs): 1 hour Date: 08-07-2023 Max. Marks: 20

NOTE: Question 1 is compulsory. Question 2 and 3 has internal choice.

Q.NO	CO	CD	PI	QUESTION	MARKS
1.	CO-3	L2	2.2.1	a) Discuss the different software quality guidelines b) Write a note on abstraction, modularity and functional independence.	6 6
2.	CO-3	L1	1.3.1	Explain any four elements of the Design model.	8
				OR	
3.	CO-3	L2	1.3.1	With relevant diagram, Discuss any four Architectural styles.	8

Course Outcome: At the end of the course the students will have the ability to	
CO–1	Explain concepts of software engineering and software process models
CO–2	Analyze the software requirements.
CO–3	Explain system concepts and process.
CO–4	Apply software testing strategies.
CO–5	Demonstrate an ability to use the agile techniques and tools necessary for engineering practices

PI's	
1.3.1	Demonstrate competence in engineering fundamentals
2.2.1	Demonstrate an ability to formulate a solution plan and methodology for an engineering problem

Blooms Taxonomy	
L1	Remembering
L2	Understanding
L3	Applying
L4	Analyzing

--- End ---

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

				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
2.8.2	Analyze and interpret the results using contemporary tools.

--- End ---