Register Number:……..

KUMARAGURU college of technology
character is life

B.E DEGREE EXAMINATIONS: APRIL /MAY 2024

(Regulation 2018)

Fourth Semester

INFORMATION SCIENCE AND ENGINEERING

U18ISI4203: Software Engineering

COURSE OUTCOMES

CO1: Design a application using UML modeling
CO2: Test the given application with various test case using a testing tool
CO3: Create a application with all the stages of software engineering lifecycle
CO4: Apply project management and change management

Time: Three Hours **Maximum Marks: 100**

Answer all the Questions:-
PART A (10 x 2 = 20 Marks)
(Answer not more than 40 words)

1.	Outline the key characteristics that define the nature of software.	CO3	[K_2]
2.	Draw the use case diagram for student management system	CO1	[K_3]
3.	List the use of a UML Activity Diagram in software development	CO1	[K_2]
4.	Why is managing rationale important in the decision-making process of software development?	CO4	[K_2]
5.	Recall about Subsystem and Services	CO3	[K_1]
6.	How does an Architectural Pattern differ from a Design Pattern.	CO3	[K_2]
7.	Differentiate between faults, erroneous states, and failures in software testing	CO2	[K_2]
8.	Recall any two key aspects of managing testing in a software project?	CO2	[K_2]
9.	List out the tools for automated Testing	CO2	[K_2]
10.	Define the term Refactoring	CO4	[K_1]

Answer any FIVE Questions:-
PART B (5 x 16 = 80 Marks)
(Answer not more than 400 words)

11.	a)	Outline the different stages of software Life cycle model.	8	CO3	[K_2]
	b)	Compare and contrast the Waterfall model and Spiral model. Discuss the advantages and disadvantages of it.	8	CO3	[K_4]

12.		Explain the key components of project organization and the importance of project communication. Discuss how effective communication strategies can impact the success of a software engineering project.	16	CO2	[K_2]
13.		Outline the system design activities involved for designing the goals, identifying subsystem and their components. Provide examples of objects and subsystems that would be relevant to a Route Planning system.	16	CO3	[K_2]
14.		Design the UML Modeling such as Use case diagram, Sequence diagram, Activity diagram, Class diagram, Collaboration diagram for ATM management system.	16	CO1	[K_4]
15.	a)	How to control and monitor the changes in software development? Identify the software configuration management activities for software development process.	10	CO4	[K_3]
	b)	Describe about the rationale activities with an example	6	CO4	[K_2]
16.	a)	Describe about automated Testing and Identify which Test Cases to be Automated?	10	CO2	[K_3]
	b)	Illustrate about unit Testing and list its merits and demerits	6	CO2	[K_2]

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