Register Number:……..

KUMARAGURU
college of technology
character is life

B.TECH DEGREE EXAMINATIONS: APRIL / MAY 2023

(Regulation 2018)

Fifth Semester

INFORMATION TECHNOLOGY

U18ITI5304**:** Software Engineering

COURSE OUTCOMES

CO1: Apply software engineering principles and techniques
CO2: Translate end-user requirements into software requirements
CO3: Develop, maintain, and evaluate large-scale software systems
CO4: Implement an efficient, reliable, robust and cost-effective software solutions
CO5: Identify software project planning & Management activities

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

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

1.	Justify the need for software life cycle models in software engineering.	CO1	[K_2]
2.	Differentiate the evolutionary model and incremental model.	CO1	[K_2]
3.	Discuss the methods to perform the requirement elicitation.	CO2	[K_2]
4.	Model a use case diagram for the hospital management system.	CO2	[K_3]
5.	Why design process is essential during the software development process?	CO3	[K_3]
6.	Discuss the design principles of software.	CO3	[K_2]
7.	Distinguish between alpha testing and beta testing.	CO4	[K_2]
8.	Describe the terms: a) Quality of Design b) Quality of Conformance.	CO4	[K_2]
9.	Calculate software availability with MTTF and MTTR as 68 days and 3 days.	CO5	[K_3]
10.	List out the basic principles of software project scheduling.	CO5	[K_2]

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

11.	a)	List the human factors and roles that are to be inculcated in a SCRUM team. Explain the SCRUM agile methodology with an example.	8	CO1	[K_2]
	b)	Discuss the unified process model with relevant examples.	8	CO1	[K_2]
12.	a)	State the functional and non-functional requirements that are to be considered during the system development model for banking operations.	8	CO2	[K_2]
	b)	Model a use case diagram, sequence diagram, and class diagram for the "Hotel Management system".	8	CO2	[K_3]
13.	a)	Explain the design concepts that are to be considered during the software design.	8	CO3	[K_2]
	b)	Describe the golden rules for various activities that are to be followed for better and quality user interface design development.	8	CO3	[K_2]
14.		Discuss the transform mapping with Safe Home Software.	16	CO4	[K_3]
15.	a)	Summarize the different types of software testing strategies.	6	CO5	[K_2]
	b)	Narrate the path testing procedure in detail with the code for the greatest of three numbers.	10	CO5	[K_3]
16.	a)	Explain in detail the different aspects of software evolution and the need for software maintenance.	8	CO5	[K_2]
	b)	Why is code restructuring done? Explain with relevant examples.	8	CO5	[K_2]

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