O.P.Code: 19CI0603 | R19 | H.T.No.

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B. Tech III Year I Semester (R19) Supplementary Examinations Nov-2023
SOFTWARE ENGINEERING &TESTING
(Computer Science & Information Technology)

Time: 3 Hours **Max. Marks: 60**

(Answer all Five Units **5 x 12** = **60** Marks)

		UNIT-I			
1	a	An application has the following: 10 external inputs, 12 high external outputs, 20 low internal logical files, 15 high external interface files, 12 average external enquiries. And a value of complexity adjustment factor of 1.10. What are the unadjusted and adjusted function pint counts?	CO1	L6	6M
	b	Is software metrics required in software engineering? Why do we really need metrics in software.	CO1	L1	6M
		OR			
2	a	Explain in detail the following software metrics with example. i) Function point ii) Information flow metrics	CO1	L2	6M
	b	Write a factorial program in C language. List out the operators and operands and also calculate the values of software science measures like η, N, V, E, and λ?	CO1	L5	6M
		UNIT-II			
3	a	List the characteristics of good SRS document and their requirements	CO2	L2	6M
	b	Illustrate E-R diagram with the diagram.	CO2	L6	6M
		OR			
4	a	What are the components of a use case diagram? Explain their usage with the help of an example	CO2	L2	6M
	b	Model a Dataflow diagram for a "Library Management System". State and explain the functional requirements you are considering.	CO2	L6	6M
		UNIT-III			
5	a	Explain the following software reliability models. i) Basic Execution Time Model ii) Calendar Time Component Model	CO3	L2	6M
	b	What is software quality? Discuss software quality attributes.	CO3	L1	6M
		OR			
6	a	Explain the following software reliability models. i) Basic Execution Time Model ii) Calendar Time Component Model	CO3	L2	6M
	b	The following parameters for basic and logarithmic poisson models are	CO3	L6	6M
		UNIT-IV			
7	a	Compare various debugging technique	CO4	L2	6M
	b	Explain mutation testing technique.	CO4	L2	6M
		OR			
8	a	What are the objectives of testing? Why is the psychology of a testing person important?	CO4	L1	6M
	b	Summarize an effect graphing testing technique.	CO4	L2	6M

UNIT-V

9	a	Compare New software development and Re-engineering	CO5	L4	6M
	b	Classify different categories of software documentation	CO5	L1	6M
		OR			
10	a	What is reverse engineering? Discuss levels of reverse engineering.	CO5	L6	6M
	b	What are configuration management activities? Draw the Performa of change request form.	CO5	L6	6M

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