O.P.Code: 23CS0513	R23	H.T.No.										

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. II Year II Semester Regular & Supplementary Examinations March/April-2026

SOFTWARE ENGINEERING

(Common to CSIT & CSE)

Time: 3 Hours **Max. Marks: 70**

PART-A

(Answer all the Questions **10 x 2 = 20** Marks)

1	a	Define software engineering.	CO1	L1	2M
	b	What is software crisis?	CO1	L1	2M
	c	Define software project management?	CO2	L1	2M
	d	What is a Formal Technique?	CO2	L1	2M
	e	Define Data Flow Diagram.	CO3	L1	2M
	f	Define LOC.	CO3	L1	2M
	g	What do you mean by Block-box testing?	CO4	L1	2M
	h	Define Smoke testing?	CO4	L1	2M
	i	Mention any two Benefits of CASE.	CO5	L1	2M
	j	Define about code generation.	CO5	L1	2M

PART-B

(Answer all Five Units **5 x 10 = 50** Marks)

UNIT-I

2	a	Explain in detail software development projects.	CO1	L3	5M
	b	Distinguish between a program and a professionally developed software.	CO1	L2	5M

OR

3	a	Explain Waterfall model with a neat diagram and list out the merits and demerits of waterfall model.	CO1	L4	5M
	b	List and explain the major differences between the exploratory and modern software development practices.	CO1	L2	5M

UNIT-II

4	a	Discuss Few points about project size? What are the popular metrics to measure project size?	CO2	L4	5M
	b	Identify and explain factors contributing to the complexity of managing a software project.	CO2	L2	5M

OR

5	a	List the important shortcomings of LOC metric when used as a software size metric for carrying out project estimations.	CO2	L4	5M
	b	Analyze the concept of COCOMO model and its extension.	CO2	L2	5M

UNIT-III

6	a	Discuss Layered Arrangements of modules.	CO3	L3	5M
	b	Classify and explain types of Cohesion and Coupling with neat sketch.	CO3	L2	5M

OR

7	a	Explain Developing the DFD model of a system.	CO3	L2	6M
	b	Describe the approaches of software design.	CO3	L3	4M

UNIT-IV

8	a	Discuss different types of code reviews.	CO4	L3	6M
	b	Classify the different types of program analysis tools used during program development.	CO4	L2	4M

OR

9	a	Distinguish between software verification and software validation.	CO4	L4	5M
	b	Define the term total quality management (TQM)? What are the advantages of TQM?	CO4	L3	5M

UNIT-V

10	a	Illustrate about software maintenance process models.	CO5	L3	5M
	b	Describe about Evolution of a reuse domain.	CO5	L2	5M

OR

11	a	Describe about architecture of a case environment with neat sketch.	CO5	L4	5M
	b	Discuss about Characteristics of Software Evolution.	CO5	L2	5M

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