Reg. No.												

Question Paper Code	12059

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2023

Third Semester

Information Technology

(Common to Fifth Semester - Artificial Intelligence and Data Science)

20ITPC302 - SOFTWARE ENGINEERING

(Regulations 2020)

Duration: 3 Hours | Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

		Marks, K-Level, CO
1.	Write the IEEE definition of software engineering.	*2,K1,CO1*
2.	What is an Agile process?	*2,K1,CO1*
3.	Differentiate functional and non-functional requirement.	*2,K2,CO2*
4.	Define Petri Net.	*2,K1,CO2*
5.	Point out the characteristics of a good design.	*2,K2,CO3*
6.	Draw the architectural context diagram.	*2,K2,CO3*
7.	Distinguish black box testing and white box testing.	*2,K2,CO4*
8.	What is cyclomatic complexity?	*2,K1,CO4*
9.	Define ZIPF's law.	*2,K1,CO5*
10.	How to measure the function point (FP)?	*2,K2,CO5*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	Define software life cycle. List all life cycle models and explain spiral model with a neat diagram.	*13,K2,CO1*
		OR	
	b)	List any six agile principles and explain Extreme programming process with neat diagram.	*13,K2,CO1*
12.	a)	What is requirement elicitation? Describe the various activities performed in requirements elicitation with an example.	*13,K2,CO2*
		OR	
	b)	Analyze briefly about the structural system analysis and classical petri nets model.	*13,K4,CO2*
13.	a)	Classify and explain the various Architectural styles in detail.	*13,K2,CO3*

OR

b) Analyze the concept of graphical design notation and write the user interface design steps. *13,K4,CO3*

14. a) What is black box testing? Explain the different types of black box testing strategies. *13,K2,CO4*

OR

b) Summarize on Top-down Integration testing and Bottom-up integration testing. *13,K2,CO4*

15. a) Demonstrate on the following.
    (i) Function Point estimation. *6,K2,CO5*
    (ii) LOC based estimation. *7,K2,CO5*

OR

b) Explain Earned Value analysis and use it to assess progress. *13,K2,CO*

PART C (1 × 15 = 15 Marks)

16. a) Discuss the concept of RMMM with an example. *15,K2,CO6*

OR

b) Explain the importance of CASE TOOLs in detail. *15,K2,CO6*