Reg. No.												

10 FEB 2023

Question Paper Code	11707

B.E. / B.Tech. - DEGREE EXAMINATIONS, NOV/DEC 2022

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.	What are the fundamental activities of a software process?	*2,K1,CO1*
2.	Define XP.	*2,K1,CO1*
3.	What are the types of Software system requirements?	*2,K1,CO2*
4.	Define functional and non- Functional requirements.	*2,K1,CO2*
5.	What is data design?	*2,K1,CO3*
6.	Define Refactoring.	*2,K1,CO3*
7.	Define Black-box testing.	*2,K1,CO4*
8.	List any four major differences between verification and validation.	*2,K1,CO4*
9.	Write about the types of Project plan.	*2,K1,CO5*
10.	Write short note on the various estimation techniques.	*2,K1,CO5*

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11.	a)	(i) Discuss about the classic waterfall process model.	*6,K2,CO1*
		(ii) Explain the Process for Spiral & Win-Win spiral Model with neat diagram.	*7,K2,CO1*
		OR	
	b)	Discuss in detail about Specialized Process Models with neat diagram.	*13,K2,CO1*
12.	a)	What is requirements elicitation? Explain various activities performed in it with watch system that facilitates to set time and alarm as an example.	*13,K2,CO2*
		OR	
	b)	Differentiate between User, functional and non-functional requirements for Hospital Management System.	*13,K2,CO2*

K1 – Remember; K2 – Understand; K3 – Apply; K4 – Analyze; K5 – Evaluate; K6 – Create

13. a) Explain the core activities involved in User Interface design process with necessary block diagrams. *13,K2,CO3*

OR

b) Analyze the concepts for Architectural Styles that are used while designing the software Product for CAD Design. *13,K3,CO3*

14. a) Explain in detail about any one control structure testing. *13,K2,CO4*

OR

b) Explain in detail about Black box testing and also write different techniques involved in black box testing. *13,K2,CO4*

15. a) (i) Explain in detail about project scheduling techniques. *7,K2,CO5*
(ii) Explain in detail about make/buy decision for any scenario. *6,K2,CO5*

OR

b) (i) What are the different activities involved in project planning. *6,K2,CO5*
(ii) Explain in detail the COCOMO model. *7,K2,CO5*

PART - C (1 × 15 = 15 Marks)

16. a) Design in detail about Risk Management ,RMM plan and Earned Value Analysis for software project estimation. *15,K3,CO6*

OR

b) Analyze in detail about Risk Projection for Robotics Project? How will you define and categorize it? What are the various risks that will happen from initialization phase of a software development to product delivery? *15,K3,CO6*