Question Paper Code	12713

B.E. / B.Tech. - DEGREE EXAMINATIONS, APRIL / MAY 2024
Fourth Semester
Computer Science and Engineering (IOT)
20CIPC401 - AGILE SOFTWARE ENGINEERING
Regulations - 2020

Duration: 3 Hours   Max. Marks: 100

PART - A (10 × 2 = 20 Marks)
Answer ALL Questions

		Marks	K-Level	CO
1.	Distinguish agile methodology and traditional methodology with suitable example.	2	K2	CO1
2.	Indicate the importance of user stories in agile documentation.	2	K1	CO1
3.	"Domain object modeling considered a foundational practice in Feature Driven Development" – Justify the statement.	2	K2	CO2
4.	Represent the three phases of Adaptive software development diagrammatically.	2	K1	CO2
5.	How does agile modeling fit into XP?	2	K2	CO3
6.	Indicate the concepts of Earl's KM model.	2	K1	CO3
7.	What approaches are used for modeling and generating requirements artifacts in Agile environments?	2	K1	CO4
8.	Mention the impact of agile processes in Requirements Engineering.	2	K1	CO4
9.	Improve internal code by making many small changes without altering the codes external behavior and infer the suitable phase in Test Driven Development model based on the statement.	2	K2	CO5
10.	Recall the importance of write and correct the failed tests before writing new code in TDD.	2	K1	CO5

PART - B (5 × 13 = 65 Marks)
Answer ALL Questions

11.	a)	List out the strengths and weaknesses of the waterfall model compared to agile methodologies and explain it.	13	K2	CO1
		OR			
	b)	Categorize different agile methods based on their core principles and practices.	13	K2	CO1
12.	a) i)	Describe the stages of "red, green, refactor" cycle with a suitable example.	6	K2	CO2
	ii)	Interpret the concept of adaptive software development and its relevance in dynamic project environments.	7	K2	CO2

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

12713

b) Outline the roles and responsibilities of a Product Owner, Scrum Master, and Scrum Team in a SCRUM project with suitable example.   *13   K2   CO2*

13. a) Describe the challenges of migrating to Agile Methodologies and agile Knowledge sharing.   *13   K2   CO3*

OR

b) Illustrate the role of story cards and key features of Story card Maturity Model (SMM).   *13   K2   CO3*

14. a) Explain the different types of agile requirements modeling and concurrency in agile requirements generation.   *13   K2   CO4*

OR

b) Analyze the importance of requirements elicitation and requirements elicitation methods.   *13   K2   CO4*

15. a) Assume that you are member of an agile testing team. In TDD, the red phase shows that the code does not function properly. The red phase is always the starting point of the red, green, refactor cycle. Explain the impact of green phase while doing TDD.   *13   K3   CO5*

OR

b) Assume that you are in the middle of sprint and the product owner has come with new requirement from the customer. Explain development team will do with respect to financial and production metrics in FDD.   *13   K3   CO5*

PART - C (1× 15 = 15 Marks)

16. a) The four values in Agile manifesto promote a software development process, which focuses on quality. They do it by creating software that meets customer's expectations and needs. Predict the four key values in agile manifesto and Interpret the twelve principles of agile software development as outlined in the Agile Manifesto.   *15   K3   CO6*

OR

b) Agile is not about "you tell me everything you want", which is called requirements gathering; this step can take months to document it. What do you understand by agile approach? Demonstrate agile techniques for real-world software development scenario.   *15   K3   CO6*