Reg. No. :

Question Paper Code: R4F06

B.E./B.Tech. DEGREE EXAMINATION, NOV 2025

Fourth Semester

Computer Science and Design

R21UCD406 – AGILE METHODOLOGIES

(Regulations R2021)

Duration: Three hours   Maximum: 100 Marks

Answer ALL Questions

PART - A (10 x 2 = 20 Marks)

1.	What is the need for Software engineering?	CO1- U
2.	Write down the characteristics of a good software.	CO1- U
3.	Describe the artifacts in the scrum framework.	CO1- U
4.	Describe the 3 roles in scrum methodology.	CO1- U
5.	Define the Osmotic communication.	CO1- U
6.	What are the XP values?	CO1- U
7.	How A/B testing is performed?	CO1- U
8.	List out the core practices of Kanban methodology.	CO1- U
9.	With an example explain Liskov Substitution Principle.	CO1- U
10.	Give an example to illustrate Interface Segregation Principle.	CO1- U

PART B - (5 x 16 = 80 Marks)

11. (a) (i) Explain the phases, advantages, and disadvantages of waterfall model.　　CO1- U　　(8)

(ii) What are the phases involved in incremental model? Advantages and disadvantages of incremental model.　　CO1- U　　(8)

Or

(b) Explain about Evolutionary process model with neat diagram.　　CO1- U　　(16)

12. (a) Explain in detail about types of Agile methodologies.　　CO1- U　　(16)

(b) Write notes on the following: CO1- U   (16)
Roles, Artifacts, and events in the Agile framework

13. (a) Explain how XP principles help the developers to embrace   CO1- U   (16)
change.
Or
(b) Explain in detail about primary practices of XP.   CO1- U   (16)

14. (a) Explain how the cumulative flow diagram is used to calculate the   CO1- U   (16)
average lead time in Kanban.
Or
(b) Explain in detail the values of Lean methodology.   CO1- U   (16)

15. (a) Explain the Interface Segregation Principle with an example.   CO1- U   (16)
Or
(b) Explain the detail about the TDD framework and tools for TDD.   CO1- U   (16)

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