

Code No: R20A6607

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

IV B.Tech I Semester Regular Examinations, November 2024

Agile Methodologies

(B.Tech-AIDS)

Roll No									

Time: 3 hours

Max. Marks: 70

Note: This question paper Consists of 5 Sections. Answer **FIVE** Questions, Choosing **ONE** Question from each SECTION and each Question carries 14 marks.

SECTION-I

- | | | | BCLL | CO(s) | Marks |
|----------|----------|---|-------------|--------------|--------------|
| 1 | A | Describe the history and evolution of Agile methodologies. How did it emerge as an alternative to traditional software development approaches like the Waterfall model? | L1 | CO-I | [7M] |
| | B | Apply the principles of Agile software development to outline a sample project plan for a small software development team. How would you structure sprints, iterations, and team roles? | L3 | CO-I | [7M] |

OR

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|----------|----------|---|-----------|-------------|-------------|
| 2 | A | Explain the basics and fundamentals of Agile and Lean Software Development. What are the key differences between Agile and Lean approaches in the context of software development? | L2 | CO-I | [7M] |
| | B | Analyze the principles of Scrum and Extreme Programming (XP). How do these two methodologies address common challenges in software development, such as changing requirements and team collaboration? | L4 | CO-I | [7M] |

SECTION-II

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|----------|----------|--|-----------|--------------|-------------|
| 3 | A | Explain the core principles of Agile Estimation and Planning and how they differ from traditional project estimation techniques. | L2 | CO-II | [7M] |
| | B | How would you approach backlog refinement using user stories in an Agile project? Illustrate the steps you would take to manage a dynamic backlog efficiently. | L3 | CO-II | [7M] |

OR

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|----------|----------|--|-----------|--------------|-------------|
| 4 | A | Explain the concept of Agile Architecture. How does it support iterative development and continuous delivery in Agile projects? | L2 | CO-II | [7M] |
| | B | Evaluate the importance of maintaining a well-prioritized product backlog. What are the consequences of poor backlog management in Agile projects? | L5 | CO-II | [7M] |

SECTION-III

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|----------|----------|--|-----------|---------------|-------------|
| 5 | A | Describe the key metrics used for tracking progress in Agile projects. | L1 | CO-III | [7M] |
|----------|----------|--|-----------|---------------|-------------|

	B	How would you use a burn down chart to track the progress of a sprint in an Agile project? Explain with a diagram.	L3	CO-III	[7M]
		OR			
6	A	Analyze the similarities and differences between Agile risk management and traditional project risk management techniques.	L4	CO-III	[7M]
	B	Explain the principles of Lean Software Development and how they align with Agile methodologies.	L2	CO-III	[7M]
		<u>SECTION-IV</u>			
7	A	What are some common tools used in Agile development? Explain their basic functions.	L1	CO-IV	[7M]
	B	Compare and contrast different Agile tools (e.g., Jira vs. Azure DevOps). Analyze their strengths and weaknesses when applied to real-world Agile projects.	L4	CO-IV	[7M]
		OR			
8	A	Explain how to use a popular Agile project management tool (such as Jira or Trello) for sprint planning. Demonstrate how tasks are tracked through the different stages of a sprint.	L3	CO-IV	[7M]
	B	Describe the role of Agile project management tools in supporting Scrum methodology. How do these tools facilitate communication and collaboration within a Scrum team?	L2	CO-IV	[7M]
		<u>SECTION-V</u>			
9	A	Explain the key principles of Agile Testing. How do these principles help in delivering high-quality software?	L2	CO-V	[7M]
	B	Analyze the challenges faced when scaling Agile Testing for large projects. What strategies can be implemented to overcome these challenges?	L4	CO-V	[7M]
		OR			
10	A	Evaluate the benefits and drawbacks of using Agile Testing in a large-scale project compared to traditional testing methods. Which approach would you recommend and why?	L5	CO-V	[7M]
	B	Define Agile Testing. How does it differ from traditional testing methodologies?	L1	CO-V	[7M]
