

Enrollment No.....



Faculty of Engineering
End Sem Examination May-2024
OE00015 Agile Development

Programme: B.Tech.

Branch/Specialisation: All

Duration: 3 Hrs.**Maximum Marks: 60**

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d. Assume suitable data if necessary. Notations and symbols have their usual meaning.

- Q.1 i. Select the option that suits the manifesto for agile software development- **1**
 (a) Customer collaboration (b) Working software
 (c) Individuals and interactions (d) All of these
- ii. Agile methodologies emphasize: **1**
 (a) Extensive quality assurance testing at the end of development
 (b) Continuous integration and testing throughout the development lifecycle
 (c) Detailed risk mitigation plans created before project initiation
 (d) Testing after development lifecycle
- iii. _____ is not an agile method. **1**
 (a) Extreme programming (b) Scrum
 (c) Waterfall (d) Crystal
- iv. In Extreme Programming (XP), what practice focuses on writing code in pairs, with two programmers working together at one workstation? **1**
 (a) Test-Driven Development (TDD)
 (b) Pair Programming
 (c) Continuous Integration
 (d) Collective Code Ownership
- v. Which of the following is NOT a common technique used to estimate effort in agile? **1**
 (a) Story points (relative sizing)
 (b) Ideal days (time-based estimation)
 (c) T-shirt sizing (informal relative sizing)
 (d) Waterfall-style detailed work breakdown structures (WBS)

[2]

- vi. What activity is NOT typically part of a successful Agile sprint planning session? **1**
 (a) Selecting user stories from the product backlog for the upcoming sprint
 (b) Breaking down user stories into specific development tasks
 (c) Assigning specific tasks to individual team members
 (d) Discussing potential risks and dependencies associated with sprint backlog items
- vii. Agile projects are known for: **1**
 (a) Fixed deadlines and detailed cost estimates set up front
 (b) Flexible timelines and iterative cost evaluations based on delivered value
 (c) Extensive project management tools for time and cost tracking
 (d) A focus on completing all backlog items within a set budget
- viii. What is the primary focus of managing scope in Agile? **1**
 (a) Keeping scope fixed and resistant to change
 (b) Accepting changing requirements and adapting scope accordingly
 (c) Minimizing stakeholder involvement in scope decisions
 (d) Ignoring scope changes to maintain project predictability
- ix. What are some key benefits of agile project management? **1**
 (a) long documentation and rigid processes
 (b) Predictable outcomes and fixed timelines
 (c) Adaptability to change and early delivery of value
 (d) Hierarchical decision-making and minimal collaboration
- x. Who is responsible for facilitating the agile process and removing impediments for the development team? **1**
 (a) Project manager (b) Product owner
 (c) Scrum master (d) Quality assurance team
- Q.2 i. How does agile ensure effective communication within a team? **2**
 ii. What are the common challenges in adopting agile? **3**
 iii. What is agile manifesto? What are its values and principles? **5**
 OR iv. Enlist benefits of agile over waterfall development. **5**
- Q.3 i. Define sprint. **2**
 ii. Discuss the roles typically found in an agile team. How they differ from traditional project structures? **8**
 OR iii. What are the core practices of XP? How do they promote rapid development and continuous improvement? **8**

[3]

- Q.4 i. What are the key considerations when creating a product roadmap within the agile framework? **3**
 ii. How do user stories differ from traditional software development requirements? What advantages do they offer? Give suitable example of user story? **7**
 OR iii. What is a burndown chart? How we can use burndown charts in an agile project? What are benefits of using burndown charts? **7**
- Q.5 i. Explain procurement management in detail. **4**
 ii. What is scrum framework? Describe the role of the product owner in scrum. **6**
 OR iii. How do agile teams estimate effort and manage time expectations for stakeholders throughout the project? **6**
- Q.6 Attempt any two:
 i. Enlist key benefits and key resources for agile project management. **5**
 ii. Differentiate scrum master and project manager. **5**
 iii. Outline the key benefits of adopting agile project management practices. How do these benefits differ from traditional project management approaches? **5**

Marking Scheme

OE00015 (T) Agile Development

Q.1	i)	D	1
	ii)	B	1
	iii)	C	1
	iv)	B	1
	v)	D	1
	vi)	C	1
	vii)	B	1
	viii)	B	1
	ix)	C	1
	x)	C	1
Q.2	i.	How does Agile ensure effective communication within a team?	2
	ii.	Common challenges in adopting Agile. (1 mark for each challenge)	3
	iii.	Agile Manifesto Definition (2 marks) Values and principles (3 marks) At least 4 principle for marks	5
OR	iv.	Enlist benefits of agile over waterfall development. (1 mark for each benefit)	5
Q.3	i.	Define sprint (2 marks)	2
	ii.	Discuss the roles typically found in an Agile team (5 marks) Their difference from traditional project structures. (3 marks)	8
OR	iii.	Core practices of XP (4marks) How do they promote rapid development and continuous improvement (4 marks)	8
Q.4	i.	What are the key considerations when creating a product roadmap within the Agile framework (3 marks)	3
	ii.	How do user stories differ from traditional software development requirements? (3 marks) what advantages do they offer? (2 marks) Give suitable example of user story. (2 marks)	7
OR	iii.	What is a burndown chart? (3 marks) How we can use burndown charts in an agile project? (2 marks)	7

What are benefits of using burndown charts? (2 marks)

Q.5	i.	Explain procurement Management in details? (4s marks)	4
	ii.	What is Scrum framework? (4 marks) Describe the role of the Product Owner in Scrum? (2 marks)	6
OR	iii.	How do Agile teams estimate effort and manage time expectations for stakeholders throughout the project? (6 marks)	6
Q.6		Attempt any two:	
	i.	Enlist key benefits and key resources for agile project management. (1 mark for each benefit)	5
	ii.	Differentiate scrum master and project manager. (1 mark for each difference)	5
	iii.	Outline the key benefits of adopting Agile project management practices. (3 marks) How do these benefits differ from traditional project management approaches?(2 marks)	5
