

**BACHELOR OF TECHNOLOGY (CBCS) (2020 COURSE)**  
**B.Tech.Sem - VI INFORMATION TECHNOLOGY : WINTER : 2024**  
**SUBJECT: AGILE METHODOLOGIES**

Day : Monday  
Date : 25/11/2024

W-24747-2024

Time : 10:00 AM-01:00 PM  
Max. Marks : 60

**N.B.**

- 1) All questions are **COMPULSORY**.
- 2) Figures to the **RIGHT** indicate **FULL** marks.
- 3) Assume suitable data **WHEREVER** necessary.
- 4) Draw neat diagrams **WHEREVER** necessary.

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**Q.1** Discuss the key differences between Agile and traditional Waterfall methodologies. Evaluate the advantages and disadvantages of each approach. (10)

**OR**

**Q.1** Discuss the role of the Product Owner in Agile development. What responsibilities do they have and how do they collaborate with other stakeholders throughout the development process? (10)

**Q.2** Explain the concept of "user stories" in Agile development. Describe how user stories are created, prioritized and utilized during the development lifecycle. (10)

**OR**

**Q.2** Discuss the agile approach to requirements gather in software development projects. Outline the key principles and techniques used in agile requirement processes. Provide examples of how these techniques facilitate effective communication between stakeholders and development teams. (10)

**Q.3** Explain the concept of "sprints" in Agile methodology. Describe typical activities that occur within a sprint and discuss their importance in the Agile development process. (10)

**OR**

**Q.3** Compare and contrast Scrum, Kanban and Extreme Programming (XP) as three different Agile frameworks. Analyze their unique characteristics, strengths and weaknesses. (10)

**Q.4** What is mean by refactoring? What are different refactoring techniques? (10)

**OR**

**Q.4** What is continuous integration? Why is it important for Agile? What are the software tools available for the same? (10)

**Q.5** What is Extreme Programming (XP) What are framework activities. (10)

**OR**

**Q.5** What is technical debt? How can we manage technical effectively in XP? (10)

**Q.6** What is Test Driven Development (TDD)? How does it work? Explain levels of TDD. (10)

**OR**

**Q.6** What are principles of Agile testing? How are unit tests written in TDD environment? Give suitable example. (10)

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