



Daffodil International University

Department of Software Engineering

Faculty of Science & Information Technology

Mid Semester Examination Spring 2026

Course Code: SE113; Course Title: Introduction to Software Engineering

Sections & Teachers: IM (47-A), RM (47-B, 47-C, 47-D, 47-E), NML (47-F), FF (47-G)

Duration: 1:30 Hours

Marks: 25

Answer ALL Questions

[The figures in the right margin indicate the full marks and corresponding course outcomes. All portions of each question must be answered sequentially.]

1.	A software company is hired to develop a National Online Library Management System .		CLO1 Level 2
	Project characteristics:		
	• The system will serve thousands of users • Requires requirement analysis, design, implementation, testing, and maintenance • Some modules (search, login, reporting) can be developed separately • The government demands documentation and formal reviews • The team wants to understand which development process and models are appropriate before starting		
	Answer the following questions based on the above scenario.		
	a)	Explain the importance of Software Engineering practices for this project.	
b)	Describe the phases of SDLC and explain how each phase would contribute to this project.		[Marks – 5]
	c) Differentiate between Waterfall and Spiral models using examples from the scenario.		[Marks – 4]
	d) The management considers using the V model.		[Marks – 5]
	Explain how this model would work for this project and describe two advantages and two disadvantages of this model.		
2.	A startup is developing a Food Delivery Mobile App .		CLO2 Level 3
	Project characteristics:		
	• Requirements change every week • Customers frequently request new features • The team is small (6 developers) • Fast release and continuous improvement are required • Work items include both new features and bug fixes		
	As a software engineer involved in the above project, select and apply an appropriate modern methodology among Scrum, XP, or Kanban .		
	a)	Select the most suitable methodology and demonstrate reasoning behind your selection.	
b)	Demonstrate how the software engineers will organize the workflow (form/graph/roles/events/board/iterations).		[Marks – 4]