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Daffodil International University

Faculty of Science & Information Technology
Department of Software Engineering
Midterm Examination, Summer 2026; Course Code: SE113
Course Title: Introduction to Software Engineering
Sections & Teachers: MMN (48-A-D), NML (48-E, L, M), RHH (48-F-I), RBB (48-J, K) FF (48-N)

Time: 1:30 Hrs **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)*	During the testing phase, a team discovers that 60% of the features do not meet client requirements. **Demonstrate** which phase of the SDLC failed, and how could it have been prevented?	[Marks-4]	CLO-1 *Level-3*
	b)	**Classify** the major types of software with suitable examples and **determine** the importance of software quality characteristics in software development and user satisfaction.	[Marks-3]	
	c)	**Illustrate** the difference between the V model and Spiral model with a proper example.	[Marks-3]	
	d)	A hospital wants to develop a patient management system. Before development starts, all requirements are clearly defined and approved by the hospital authority. The system must be highly reliable because it will manage patient records and medical reports. The development team plans testing activities alongside each development phase to ensure that every feature works according to the specified requirements. **Determine** which SDLC model is the best fit for the above scenario and explain the reason.	[Marks-5]	
2.	*a)*	A mobile application development team releases small updates regularly. New requirements may appear at any stage of development. The team wants to limit the number of ongoing tasks and continuously monitor the workflow. To improve transparency, they use a visual board where tasks move through different stages such as To Do, In Progress and Done. The team has a rule that no more than 3 tasks can be in the In Progress column at the same time. **Explain** the most appropriate Agile framework for this scenario. What is the rule described called, and why is it important?	[Marks-5]	CLO-2 *Level-2*
	b)	**Describe** how Pair Programming works in XP. What are its advantages over solo development?	[Marks-5]	