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Daffodil International University

Faculty of Science & Information Technology
Department of Software Engineering
Midterm Examination, Spring 2025
Course Code: SE212; Course Title: Software Requirements Specification & Analysis
Sections & Teachers: All

Time: 1 Hour 30 Mins **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.]

Anushka, a university professor, planned to attend an international conference in Singapore. With her busy schedule, she decided to book her flight through an online airline platform. One evening, she opened the app, which displayed a clean and easy-to-navigate interface. She entered her departure city, Dhaka, destination, Singapore, and travel dates. Within seconds, the app displayed available flights from different airlines, along with prices, departure times, and flight durations. After comparing options, Anushka selected a morning flight with Air Sky. The app guided her to the next step, where she entered her personal details, including her passport number, contact information, and meal preferences. Since she preferred a window seat, she selected one using the seat map feature. For additional convenience, she added extra baggage and travel insurance. Moving to the payment section, Anushka chose to pay using her credit card. The system ensured her payment was secure by encrypting her financial information. After completing the transaction, she received an email and SMS confirmation with her e-ticket and flight itinerary. On the day of her journey, Anushka used the app to check in online and download her boarding pass, saving time at the airport. She also tracked real-time flight updates to ensure her flight was on schedule. At the airport, she swiftly passed through security and found her gate. While boarding, the airline's digital system verified her ticket using a QR code, streamlining the process. After a smooth flight, she landed in Singapore and received an app notification with luggage carousel information. Throughout her experience, Anushka appreciated the system's reliability, ease of use, and real-time updates. The secure payment process, intuitive seat selection, and instant notifications made her journey stress-free, demonstrating how technology can simplify air travel from booking to arrival.

1.	a)	*Analyze the given scenario and **articulate** the functional and non-functional requirements for the system, explaining how they support its intended functionalities and user experience.*	**[Marks-6]**	**CLO-1** *Level-2*
	b)	***Describe** the user profile of Anushka and illustrate her smooth interaction with the system.*	**[Marks-5]**	
2.	a)	***Interpret** an appropriate elicitation technique for the system described in the scenario and justify your choice with a detailed explanation of how it will effectively gather the necessary requirements.*	**[Marks-6]**	**CLO-2** *Level-2*
	b)	***Discuss** the drawbacks of alternative elicitation techniques that you decided not to use during the requirement collection phase and explain why they were less suitable for this scenario.*	**[Marks-3]**	
3.	a)	***Draw** a use case diagram based on the air ticket booking and traveling system scenario provided. Identify key actors, use cases, and system interactions that demonstrate the process from booking a ticket to completing the journey.*	**[Marks-5]**	**CLO-3** *Level-3*