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Daffodil International University

Faculty of Science & Information Technology
Department of Software Engineering
Final Examination, Summer 2025
Course Code: SE212; Course Title: Software Requirements Specification
Sections & Teachers: MTM(A), RHH(B, K), FRR(C), RMS(D-G), KBB(H-I), NML(J), SHN(L)

Time: 2:00 Hrs **Marks: 40**

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.]

Rahim, a university student, uses EduTrack, a cloud-based Learning Management System designed to support online and hybrid education. After logging in through two-factor authentication, Rahim sees a personalized dashboard showing enrolled courses, upcoming deadlines, and recent announcements.

He downloads lecture slides, submits assignments through the portal, and joins live video classes integrated with Zoom. The system automatically checks assignment submission deadlines and flags late submissions. Quizzes are auto-graded, while subjective assignments are graded by instructors. Rahim can track his progress through a performance analytics module that visualizes grades using charts.

The platform also provides a discussion forum where students and teachers interact. Notifications are sent via email and in-app alerts about deadlines, grades, or forum replies. EduTrack ensures data security by encrypting user data and complies with academic integrity policies, including plagiarism detection for uploaded documents.

1.	***a)***	*Explain the system requirements of EduTrack described in the scenario by preparing a Software Requirement Specification (SRS) table.*	**[Marks-10]**	**CLO-2** *Level-2*
2.	***a)***	*Prepare a use case description for the "Assignment Submission" functionality described in the scenario.*	**[Marks-8]**	**CLO-3** *Level-3*
	b)	*Apply some suitable requirement prioritization technique to organize the requirements of this system. Demonstrate the rationale behind the prioritization with examples from the scenario.*	**[Marks-7]**	
	c)	*Construct a Requirement Traceability Matrix (RTM) for EduTrack, showing how each requirement links from source to design, implementation, and testing.*	**[Marks-8]**	

HealthSync is a mobile app designed to promote a healthy lifestyle. Users can track steps, monitor heart rate using wearable integration, log meals, and set fitness goals. The home screen shows daily activity, calorie intake, and health reminders.

The app allows integration with smartwatches for real-time monitoring. A chatbot provides diet suggestions, while AI-based analytics generate weekly health reports. Social features allow users to share progress with friends and join fitness challenges. For privacy, sensitive health data is encrypted and stored securely in compliance with international health standards.

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3.	***a)***	*Analyze the scenario and create a prototype demo outline for the HealthSync mobile app, highlighting major UI components and functionalities.*	**[Marks-7]**	**CLO-4** ***Level-4***

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