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Daffodil International University

Faculty of Science & Information Technology

Department of Computer Science & Engineering

Final Examination, Spring 2026

Course Code: CSE431 Course Title: Social and Professional Issues in Computing

Level: 4 Term: 1 Batch: 64

Time: 02:00 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.]

1		A popular mobile application provides free services to users. However, it secretly collects personal data such as location, contacts, browsing history, and messages. This data is later sold to third-party advertising companies without proper user consent. Many users are unaware of this data collection because the privacy policy is long and unclear.		
	a	Analyze the scenario to identify ethical issues and examine the potential risks related to the misuse of user data.	5	CO2
	b	Discuss the consequences and liabilities of unethical data practices, and propose ethical measures to ensure responsible data handling.	5	
2		A major cloud infrastructure provider suffers a sudden global outage after deploying a faulty network configuration update. As a result, thousands of websites, financial systems, and communication platforms become unavailable for several hours. Early investigations indicate that the failure stemmed from inadequate testing, excessive reliance on automated deployment, and the absence of effective fallback mechanisms. The disruption impacts millions of users worldwide, leading to serious financial losses and operational challenges for businesses and organizations that depend on these services.		
	a	Analyze the scenario to identify the type of failure and examine the key causes that contributed to the incident.	5	CO3
	b	Evaluate the risks and impacts of this failure on various stakeholders and assess their consequences.	5	
3		A software engineer at a tech company is developing a mobile payment application with a tight deadline. During final testing, the engineer discovers a critical security flaw that could expose users' financial information. Despite this, the project manager insists on releasing the application on schedule, suggesting that the issue can be fixed later through updates. The engineer understands that delaying the release may lead to financial losses and dissatisfaction among stakeholders, but is also aware of the potential risks to users if the flaw is not addressed before launch.		
	a	Analyze and evaluate the decisions of the engineer and the project manager in terms of professional conduct, honesty, and responsibility toward users.	5	CO2
	b	Recommend an ethically appropriate course of action and justify your answer based on professional standards and users safety.	5	

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4		Jahid is preparing for his studies, but cannot afford the required textbook. A friend shares a scanned PDF copy of the book through Telegram, which Jahid uses for his studies. Later, he distributes the same file among his classmates to help them save money. While this practice benefits students economically, it raises concerns about intellectual property rights, fairness to authors and publishers, and ethical decision-making. The situation requires evaluating the trade-off between affordability and respect for copyrighted materials, considering both economic impact and ethical responsibility in digital content sharing.		
	a	Analyze this situation by applying principles of copyright law and examining the economic implications of unauthorized content sharing.	**5**	**CO4**
	b	Evaluate whether Jahid's actions are ethically acceptable in light of student needs, and justify your answer using fair dealing and ethical reasoning.	**5**	

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