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Daffodil International University

Faculty of Science & Information Technology
Department of Computer Science & Engineering
Mid-Semester Examination, Fall 2026
Course Code: CSE326, Course Title: Social and Professional Issues in Computing
Level: 3 Term: 2 Batch: 66

Time: 1.5 Hrs **Marks: 25**

Answer ALL Questions [Optional]

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

1.		Suppose your university's computer laboratory has 80 computers connected to the same network. Several computers contain students' assignments, project files, and teachers' course materials. One day, a student installs an unauthorized game downloaded from an unknown website on one of the laboratory computers. After a few hours, files on that computer become encrypted. Later, several other computers connected to the same network also become affected. The attackers display a message demanding payment in exchange for a decryption key. The university has no recent backup of some of the affected files.	5	CO1
		Identify the cybercrime involved in the scenario. Also, discuss at least three preventive measures that the university should implement.		
2.		A major private health care provider network with a budget of roughly USD 20 million is currently contemplating a major Digital Transformation Project. These are the proposed works, such as the use of artificial intelligence in disease diagnosis, cloud-based patient record management systems, remote patient monitoring systems, robotic assistance in medical procedures, and telemedicine, which enables doctors to consult patients in remote areas. Advocates for the project believe that the technologies of high-powered computers are likely to have a significant impact on the quality of health services by minimizing diagnostic mistakes, improving the efficiency of health services, accelerating treatment decisions, and increasing access to health services. They hope the investment will enhance the hospital's reputation and enable healthcare experts to make better-informed decisions based on real-time data analysis. But there have been some worries about the massive amount of money that it will take. They also fear threats from the cyber world, data privacy, a possible technical failure, and are concerned about resistance from employees who might be slower to accept new technologies. There are concerns that undue reliance on computer systems may affect patient–provider relationships and lead to increased operating risks. The hospital board has asked for an in-depth analysis prior to a decision.		
		Evaluate the proposed digital transformation project. Critically evaluate any advantages and disadvantages it may bring in technological, financial, and operational . Based on your evaluation, decide whether or not the hospital should invest and give a plausible rationale for your decision	5	

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3.		In 2021, the workplace review platform Glassdoor received court orders demanding the unmasking of anonymous users who posted critical, allegedly defamatory reviews accusing a company's executives of labor exploitation and fraud. Glassdoor fought the subpoenas, arguing that true anonymity is essential for whistleblowers to expose workplace wrongdoing without facing career retaliation. However, the targeted company argued that unchecked anonymity fosters false claims that destroy corporate reputations without legal accountability.		
		Evaluate Glassdoor's defense of maintaining user anonymity versus the company's demand for accountability, and justify which regulatory paradigm should govern the platform's liability for defamatory employee posts ?	5	
4.	*a)*	FitPulse is a complimentary fitness application. Users are required to check a box that they have read its 15-page privacy policy, but most users will not read it. The app tracks each user's running routes and their sleep times via GPS, and their heart rate. It also gathers a list of the other apps that are installed on users' cellphones without their knowledge. In one place in the policy, it is written: "We might disclose your information to our partners, if you don't want this, please contact us by e-mail." Two years later, FitPulse sells all the data it has to a health insurance company. The insurance company compares this information with its own customer records based on the phone numbers. It then increases premiums for customers whose data indicates they don't exercise much, and sleep poorly. Of these, many customers are surprised, as they have only signed up to use FitPulse to monitor their running.		CO2
		Explain with examples from the scenario how the following occurs: invisible information gathering and secondary use. When you checked the box, " FitPulse says you agreed to everything. Talk about whether you think this is a reasonable statement.	5	
	b)	5000 CCTV cameras with a face recognition system are installed by a city council. The cameras capture all those who walk through, no matter where they are heading, to work, hospital, or worship. The system matches all faces it captures with the national ID photo database and a list of suspects maintained by police. All videos are saved indefinitely. One night, the system alerts a university student named Adam to a robber. One night, a university student named Adam is alerted to a robber by the system. He is stopped and searched in front of his friends, held for six hours at a police station, and only released when the police realize the match is incorrect. The council protects the system, claiming: " There's no need to worry about innocent people.		
		Provide an explanation of the impact of this system on the privacy of ordinary people in the city, even those who are not flagged. Refer to at least one key aspect of privacy in your answer. Do you believe the council is saying, "innocent people have nothing to fear"? Discuss using Adam's case.	5	