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Daffodil International University

Faculty of Science & Information Technology
Department of Computer Science & Engineering
Final Semester Examination, Fall 2024
Course Code: AOL 101, Course Title: Art of Living
Level: 2 Term: 1 Batch: 65

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.]

1.	Imagine you are a new hire at a cutting-edge renewable energy company called GreenTech Innovators. GreenTech Innovators employs AI-driven tools for energy efficiency analysis and uses a collaborative digital platform for employees to share innovative ideas. The HR manager discusses how adopting these technologies aligns with the corporate culture by promoting teamwork and creative problem-solving, ultimately contributing to a more sustainable future. You are also introduced to various technological tools like data visualization software, project management platforms, and energy simulation tools. A hands-on session follows, where you apply these tools to analyze a hypothetical case: optimizing energy usage in an urban setting.			**CO1**
	a)	**Describe** how GreenTech Innovators' integration of technological tools supports its corporate culture values of innovation and sustainability.	**[5]**	
	b)	**Explain** how data visualization tools can be used to identify energy-saving opportunities in an urban setting, based on the given orientation case study.	**[5]**	
2.	Imagine you are participating in a tech bootcamp designed to prepare professionals for the future of work in a highly digitalized world. The instructor challenges you to explore how digital and technological literacy impact daily life, from personal internet usage to workplace efficiency and ethical decision-making. Your task is to dive deeper into the importance of these skills and their broader implications.			
	a)	**Distinguish** the components of digital literacy and construct an argument for why mastering these skills is crucial for effective internet navigation and utilization in professional and personal contexts.	**[5]**	**CO2**
	b)	**Examine** the critical elements of technology literacy and formulate a comprehensive explanation of how its ethical, legal, and social implications influence decision-making in today's interconnected society.	**[5]**	
3.	You are a member of a startup aiming to launch an IT-based social enterprise to address educational inequality in rural areas. Your team proposes developing a mobile app that delivers offline-accessible learning materials, quizzes, and teacher support resources. The app will be powered by AI to personalize the learning experience based on students' progress. However, your startup faces challenges, including limited internet connectivity in target regions, low digital literacy among teachers, and securing initial funding.			**CO1**
	a)	**Explain** the potential impact of this app on rural education and identify three critical factors that could determine its success. Identify your answer with examples from similar initiatives.	**[5]**	

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	b)	**Express** innovative solutions to overcome the challenges of internet connectivity and digital literacy. How would you ensure these solutions are scalable and sustainable?	**[5]**	
4.	Assume that DIU recently implemented a virtual reality (VR) lab for teaching complex subjects such as network simulation, software development environments, and cybersecurity. While this cutting-edge technology offers immersive learning experiences, many students are initially hesitant to adopt it due to unfamiliarity, lack of prior exposure, and difficulty integrating VR-based learning into their study habits. To address this, university has organized introductory sessions and provided guides to encourage adaptation, but students must evaluate its usefulness and modify their approach to learning.			**CO2**
	a)	**Analyze** the factors influencing students' adaptation to the VR-based learning environment and determine how these factors impact their engagement and academic performance.	**[5]**	
	b)	**Examine** the differences in the learning approaches of students who quickly adapt to the VR lab versus those who struggle, and explain how these approaches affect their ability to understand complex IT concepts.	**[5]**	

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