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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATIONS, 2024/2025 ACADEMIC YEAR
FIRST YEAR, FIRST SEMESTER EXAMINATION
FOR THE DIPLOMA IN SOFTWARE ENGINEERING
DSE 1005: LEGAL PROFESSIONAL ETHICS AND I.T

DATE: 10TH DECEMBER, 2024

TIME: 8:30 AM-10:30 AM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE: COMPULSORY (30 MARKS)

St. Ann Hospital is a leading medical institution known for its innovative use of Artificial Intelligence (AI) to enhance patient care and improve operational efficiency. AI is transforming the healthcare industry by enabling more accurate diagnoses, personalized treatment plans, and optimized resource management. However, while the benefits are substantial, the adoption of AI in healthcare also presents challenges that need to be addressed to maximize its potential.

- a) Discuss **TWO** advantages of using AI in St. Ann Hospital and how they can impact patient outcomes and hospital efficiency? **(4 Marks)**
- b) Identify **THREE** strategies that St. Ann Hospital can make in response to the rise of Artificial Intelligence in Healthcare. **(3 Marks)**
- c) Evaluate the Role of Leadership at St. Ann Hospital in managing the adoption of AI. How can the leadership decisions impact the hospital's ability to Adapt to AI? **(4 Marks)**
- d) Discuss **THREE** factors that can hinder St. Ann Hospital's ability to adapt to AI. **(3 Marks)**
- e) Explain the sustainability of St. Ann Hospital's AI-Enhanced Healthcare Model in Today's Market Environment. **(4 Marks)**
- f) Discuss the role that AI can play in enhancing preventive healthcare at St. Ann Hospital? **(3 Marks)**
- g) Discuss **THREE** ethical considerations involved in the use of AI for patient diagnosis and treatment at St. Ann Hospital. **(3 Marks)**
- h) Discuss how the hospital can ensure Fair and Bias-Free AI Applications? **(2 Marks)**
- i) Discuss how St. Ann Hospital can measure the success of AI implementation in terms of patient satisfaction, care quality, and operational efficiency? **(2 Marks)**
- j) Propose **TWO** Key Performance Indicators (KPIs) that could be used. **(2 Marks)**

QUESTION TWO: (20 MARKS)

Triple A Marketing Company is a digital marketing firm that leverages social media platforms to help its clients reach a wide audience through targeted ads and personalized content. As part of its strategy, the company relies

heavily on data collection, tracking user behavior across platforms to tailor its marketing efforts. However, the company faces ethical scrutiny for practices involving the collection of user data without transparent consent.

- a) Using **TWO** examples, explain the ethical implications of such practices on the client's privacy. **(4 Marks)**
- b) Discuss how computing professionals should navigate the tension between data-driven business models and User privacy rights. **(5 Marks)**
- c) Discuss **THREE** ethical Implications of tracking Users' Online behavior without transparent consent. **(3 Marks)**
- d) Explain how the social media company should address these concerns to restore User Trust? **(3 Marks)**
- e) Explain how the criticism of Its data collection practices affects the social media Company's Brand reputation and User base. **(3 Marks)**
- f) Propose **TWO** Strategies for effective crisis management and communication to mitigate negative Impacts. **(2 Marks)**

QUESTION THREE: (20 MARKS)

Declan Real Estate Company is a well-established firm that specializes in land buying and selling for residential and commercial development. As the company grows, it faces increasing pressure to maintain ethical standards, especially when disclosing hidden costs and additional fees to buyers. Ethical transparency in real estate transactions is critical for building trust with clients and maintaining the company's reputation. The company must ensure that all aspects of a land sale—including taxes, legal fees, and development restrictions—are communicated clearly to customers, preventing disputes and ensuring informed decision-making.

- a) Discuss **TWO** Ethical Considerations of Revealing All Hidden Costs When Selling Land to Customers. **(2 Marks)**
- b) Discuss the Legal and Regulatory challenges Declan Real Estate may face when ensuring transparency in Land transactions. **(4 Marks)**
- c) Discuss how the company can ensure compliance while navigating these complex Issues? **(3 Marks)**
- d) Discuss how Declan Real Estate can use technology and digital tools to streamline the process of cost disclosure, ensuring that clients receive clear and transparent information before making decisions? **(4 Marks)**
- e) Explain **TWO** measures that the company can implement to foster a culture of ethical transparency within its workforce, ensuring integrity in all land transactions? **(4 Marks)**
- f) Discuss how can the company balance ethical considerations with the pressures of meeting sales targets, especially in a competitive real estate market? **(3 Marks)**

QUESTION FOUR: (20 MARKS)

In many rural areas, primary schools face a significant digital divide due to limited access to technology, the internet, and digital learning resources. This divide disproportionately affects students, particularly girls, by hindering their ability to develop essential digital literacy skills that are increasingly crucial for educational

advancement and future opportunities. Bridging this gap requires addressing not only technological infrastructure but also gender-specific challenges that limit girls' access to digital education.

- a) Discuss **THREE** Ethical Issues Related to the Digital Divide in Rural Primary Schools. **(4 Marks)**
- b) Discuss **FOUR** Actions That Can Be Taken to Address the Digital Divide in Rural Primary Schools and Promote Gender Equality. **(2 Marks)**
- c) Discuss **FOUR** Challenges in Implementing Digital Literacy Programs in Rural Schools and How They Can Be Overcome. **(2 Marks)**
- d) Discuss How Closing the Digital Divide Can Enhance Educational Outcomes for Girls in Rural Schools. **(2 Marks)**
- e) Explain **TWO** steps that policymakers take to ensure that digital literacy programs in rural schools are inclusive of girls and address gender-specific challenges? **(3 Marks)**
- f) Discuss how educators and community leaders can work together to overcome cultural barriers that prevent girls from accessing digital education in rural areas? **(2 Marks)**
- g) Discuss **TWO** roles that can partnerships between governments, NGOs, and private companies play in closing the digital divide in rural schools, particularly for girls? **(2 Marks)**
- h) Discuss how digital literacy programs be designed to ensure that girls in rural schools are empowered to pursue further education and careers in technology? **(2 Marks)**
- i) Discuss **TWO** strategies that should be implemented to ensure that investments in digital education infrastructure benefit both boys and girls equally in rural schools? **(2 Marks)**

QUESTION FIVE: (20 MARKS)

Mamba Family Bank, a regional bank serving both urban and rural communities, has invested in advanced information systems to enhance customer service, security, and operational efficiency. However, rural customers continue to face challenges accessing the bank's digital services due to limited internet connectivity and digital literacy. This has raised concerns about the equitable access to financial services, data privacy, and security, particularly as the bank moves toward a more technology-driven business model.

- a) Discuss the social Implications of limited digital access on Financial Inclusion and Economic Opportunities in Rural Communities. **(4 Marks)**
- b) Discuss **FIVE** strategies Mamba Family Bank could use to bridge the digital divide and promote Financial Inclusion for rural customers. **(5 Marks)**
- c) Identify **FOUR** Key Factors Contributing to the Digital Divide in Rural Areas and Explain How These Factors Differ from Those in Urban Settings. **(4 Marks)**
- d) Explain How the Digital Divide Affects Rural Customers' Access to Mamba Family Bank's Online Services and Their Overall Banking Experience. **(3 Marks)**
- e) Discuss Specific Challenges Related to Digital Literacy, Data Security, and Ethical Banking Practices in Rural Communities. Propose Potential Solutions to Mitigate These Issues. **(4 Marks)**