



**PAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMPUTING AND INFORMATICS

DEPARTMENT OF INFORMATICS

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| QUALIFICATIONS: Bachelor of Computer Science; Bachelor of Informatics; Bachelor of Computer Science (Cybersecurity) | |
| QUALIFICATION CODE: 07BCMS; 07BAIT; 07BCCY | LEVEL: 6 |
| COURSE CODE: EFC621S | COURSE: Ethics for Computing |
| DATE: January 2024 | SESSION: 1 |
| DURATION: 3 Hours | MARKS: 100 |

| SUPPLEMENTARY/SECOND OPPORTUNITY EXAMINATION QUESTION PAPER | |
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| EXAMINERS: | Prof Gloria Iyawa Dr Richard Maliwatu Dr Munyaradzi Maravanyika Mr Benjamin Akinmoyeje |
| MODERATOR(S): | Prof Attlee M. Gamundani |

**THIS EXAMINATION PAPER CONSISTS OF 3 PAGES
(INCLUDING THIS FRONT PAGE)**

INSTRUCTIONS FOR THE CANDIDATE

1. Answer all questions.
2. When writing, consider the following: The style should be to inform rather than impress.
3. Information should be brief and accurate.
4. Please ensure that your writing is legible, neat and presentable.

SECTION A: STRUCTURED QUESTIONS

[60 MARKS]

1. List and describe **TWO (2)** ethical considerations surrounding software piracy.
[10 marks].
2. List and describe **TWO (2)** ethical issues associated with using work computers for non-work purposes.
[10 marks].
3. What is the difference between a utility patent and a design patent, and how do they serve different purposes?
[10 marks].
4. Describe **two (2)** ethical issues in the use of social media networks.
[10 marks].
5. Describe **two (2)** considerations a whistle-blower must take before going public with his or her allegations.
[10 marks].
6. Briefly describe green computing and describe **two (2)** methods in which organisations can support green computing.
[10 marks].

SECTION B

[40 MARKS]

1. You work in a software development team that includes a colleague, Sarah, struggling with a project. Despite repeated attempts, Sarah has been unable to meet project deadlines and frequently seeks assistance from others on the team. Other team members are growing increasingly frustrated with the extra workload caused by Sarah's struggles.

Discuss how you can address this situation per the ethical code of "Be Fair to and Supportive of Colleagues" in software engineering. [10 marks]

2. You are a software engineer in a rapidly evolving technology industry. Lately, you've noticed that many of your colleagues, including some senior members, resist adopting new technologies or staying updated with the latest industry trends. This reluctance affects the team's ability to innovate and compete effectively in the market.

Describe how you can address this situation in line with the ethical code of "Participate in Lifelong Learning" in software engineering. [10 marks]

3. You work as a cybersecurity expert for a large e-commerce company. Recently, your organisation has been considering implementing a new data analytics system that collects and analyses customer data to improve personalised marketing efforts. However, there are concerns that this system may infringe on customer privacy.

How would you address this situation in line with the ethical code of "Harms to Privacy" in cybersecurity? [10 marks]

4. You are a cybersecurity expert at a financial institution that recently experienced a data breach. Customer data, including personal information and financial records, was compromised. The breach was promptly addressed, and affected customers were informed. However, the company's initial response lacked transparency, and some details about the breach were not disclosed to customers.
- a. How would you address this situation in line with the ethical code of "Transparency and Disclosure" in cybersecurity? [10 marks]

End of question paper