



Kasarani Campus
Off Thika Road
Tel. 2042692 / 3
P. O. Box 49274, 00100
NAIROBI
Westlands Campus
Pamstech House
Woodvale Grove
Tel. 4442212
Fax: 4444175

KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR
THIRD YEAR, FIRST SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF SCIENCE
(MATHEMATICS AND COMPUTER SCIENCE)

Date: 14th December, 2023
Time: 11.30am –1.30pm

KCS 306 - COMPUTING PROFESSIONAL ETHICS

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Using four examples explain the significance of ethical considerations in the field of computing? (4 Marks)
- b) Provide four examples of ethical dilemmas that computing professionals may encounter in their work. (4 Marks)
- c) Discuss the ethical decision-making framework and its application in computing. (5 Marks)
- d) Using four examples, explain importance of privacy in the digital age. (4 Marks)
- e) Discuss four challenges to maintaining privacy online. (4 Marks)
- f) Explain the importance of intellectual property rights in computers. (5 Marks)
- g) Discuss the ethical concerns associated with the development and deployment of artificial intelligence (AI) systems. (4 Marks)

QUESTION TWO (20 MARKS)

- a) Using relevant examples discuss how the following companies have implemented Intellectual Property Rights.
- i) Coca Cola (4 Marks)
 - ii) Equity Bank (4 Marks)
 - iii) Kiriri Women University of Science and Technology (4 Marks)
 - iv) Naivas Supermarket (4 Marks)
- b) Using four relevant examples explain the role of privacy in organizations. (4 Marks)

QUESTION THREE (20 MARKS)

- a) i) A manufacturing company is found to be exceeding pollution limits, impacting a nearby community's health. Using two relevant examples, discuss the ethical responsibilities of the company. (4 Marks)
- ii) Using four examples explain the strategies for mitigating the environmental harm explained above. (4 Marks)
- b) A defense attorney learns that their client, who they believe is innocent, intends to lie on the witness stand.
- i) Using Three relevant examples explain the ethical challenges faced by the attorney. (4 Marks)
- ii) Using Four relevant examples recommend a course of action for the attorney. (4 Marks)
- c) In a healthcare system with limited resources, a committee must decide how to allocate life-saving medical equipment during a pandemic. Discuss the ethical principles and considerations involved in such resource allocation decisions. (4 Marks)

QUESTION FOUR (20 MARKS)

- a) A hiring manager of Kikwetu restaurant favours candidates of a certain ethnicity as he hires them.
- i) Using Two relevant examples, discuss the ethical dimensions of this situation in the restaurant. (4 Marks)
- ii) Explain how he can address and prevent discrimination in the hiring process. (4 Marks)
- b) A teacher has discovered that a student has submitted a plagiarized assignment.
- i) Discuss the ethical issues involved in the case above. (4 Marks)
- ii) Using Four examples discuss resolution that could uphold academic integrity.(4 Marks)
- c) An employee at a financial firm has access to non-public information about a company's upcoming earnings report and is considering trading on this information. Using two examples, discuss the ethical implications of insider trading and recommend a course of action. (4 Marks)

QUESTION FIVE (20 MARKS)

- a) i) An engineering company is hired to design a new project that may have detrimental environmental effects.
- ii) Discuss the ethical responsibilities of engineers in balancing economic development and environmental protection. (4 Marks)
- b) An E-commerce Retailer employs Artificial Intelligence for personalized product recommendations.
- i) Using four relevant examples, explain the ethical concerns related to data collection and customer profiling for marketing purposes. (4 Marks)
- ii) Explain four ethical guidelines the company should follow to respect customer privacy. (4 Marks)
- c) An Autonomous Vehicle Manufacturer designs self-driving cars equipped with Artificial Intelligence.
- i) Discuss the ethical dilemmas associated with the collection of data from these vehicles, including location data, driver behavior, and potential privacy concerns. (4 Marks)
- ii) Discuss Two examples of ethical strategies for data management in autonomous vehicles. (4 Marks)