INTERNATIONAL UNIVERSITY OF EAST AFRICA
'Learning to Succeed'

FACULTY OF SCIENCE AND TECHNOLOGY

END OF SEMESTER EXAMINATIONS - APRIL 2025

PROGRAMME: BSSE
YEAR/SEM: YEAR 4/SEMESTER 2
COURSE CODE: SWE4201
NAME: ETHICS FOR PROFESSIONAL SOFTWARE ENGINEERS

DATE:
TIME:

INSTRUCTIONS TO CANDIDATES:

SECTION A

Attempt all Questions (40 marks)

Question 1:

An accountant has worked for a company for more than 10 years. For the first six years, he worked so well and gained the trust of the company Directors. They even put him as one of the signatories of the company bank accounts. From 2019, employees started complaining of being paid less salary than what they were supposed to be paid. The accountant told them that it was a mistake and promised to rectify it on the next payment. The same issue of unexplanatory salary deductions continued to happen even in the following years. Employees complained to all possible offices but could not get any help. They even wrote complaint letters to the company Directors but the Directors trusted the accountant so much that they did not listen to the employee complaints. Some employees looked for better jobs and left the company. The other employees that remained found the situation unbearable and they decided to riot. They invaded the office of the accountant and beaten him to near death until the Police was called upon to rescue him.

a) Based on the above Scenario, with reasons, who is wrong? (6 marks)
b) If you are to penalize, whom would you penalize? (6 marks)
c) What professional advice would you give and to whom would you give that advice? (10 marks)
d) Describe the various ethical decision-making approaches that exist and specify the approach that would be the best to use when solving their issue (18 marks)

Question 2:

An accountant has worked for a company for a university for more 15 years. He was working so well that the university proprietors liked him so much. The university got a new Vice Chancellor and was installed. Just a few days after installation, the accountant invited the new Vice

Chancellor to a lunch as a warm welcome to the university. During the Lunch ceremony, the accountant a gift the Vice Chancellor an envelope containing 100 million Ugandan shillings. They remained good friends. For three years, the accountant would take budgets to the VC , they would first chat as friends and the VC would after sign the budgets. The two were good friends and the VC would sign the budgets without reviewing them because he trusted the accountant. In the fourth year, the University Proprietors hired an auditor to audit the university books of accounts. The Auditor report revealed a lot of issues such as having a lot of money paid to ghost workers, prices of various items were exaggerated among others. The accountant argued that all expenditures were legal because they were approved by the VC.

a) Based on the above Scenario, with reasons, who is wrong? (6 marks)
b) With a reason, was the 100 million given to the VC a bribe or a gift? (6 marks)
c) Under what circumstances can be gift become a bribe (8 marks)
d) Give atleast four differences between a gift and a bribe (8 marks)
e) What professional advice would you give and to whom would you give that advice? (12 marks)

SECTION B

Attempt only 3 Questions. Each Question carries 20 marks

Question 1:

A Human Resource (HR) Manager and an accountant have worked for a company for a university for more 15 years. They both know each other and are friends. On several occasions, the accountant would call the HR Manager and ask him for a favor to hire his friends on any available job opportunity and the HR Manager would do so. In return, the accountant would also quickly with easy process salary loans requested by the HR Manager. It reached a time when more than a half of the employee in the company were related to the accountant. Those employees related to the accountant would even violate company rules but the HR Manager would not fire them because he did not want to annoy the accountant. The employees also knew that they were protected by the accountant and would not listen to directives from the HR Manager. On realizing that he lost control of the employees, the HR Manager talked to the accountant about the inappropriate ways of the employees he recommended for Jobs, but the accountant could not listen and he actually thought that the HR Manager just did not like his people that he recommended. So the two got conflicts.

a) Based on the above Scenario, with reasons, who is wrong? (6 marks)
b) What professional advice would you give and to whom would you give that advice? (8 marks)
c) What ethical approach to decision making would you employ when solving the conflict (6 marks)

Question 2:

Your country is in a process of creating a law for Privacy over the internet. As the IT Ethics Minister, you have been contacted to give advice.

a) Explain the various categories of Information privacy **(4**

marks)

b) Give advice about the various ways in which people's privacy is invaded or violated using the internet **(8 marks).**

c) Give advice about clauses that would be include into the said law to protect people's privacy over the internet **(8 marks).**

Question 3:

Imagine you are employed as the IT Manager of a company producing electronics and computers. However, to your surprise, the company business is operated on many bad deals, the company produces a lot of fake electronic equipment and supplies them to the world. As a new Manager, your boss introduces to you how the business is conducted and asks for your great new ideas on how to operate the business, commitment and efforts to see the business grow. As a trained IT Ethics professional, use the scenario to answer the questions below;

a) Educate your Boss about professionalism **(5 marks)**

b) What new ideas would you give to your boss **(5 marks)**

c) What reasons would you give to your boss to convince him that your new ideas would work **(5 marks)**

d) What measures would you put in place to ensure that your new ideas would work and last long **(5 marks)**

Question 4:

After writing an exam, the student realized that she has failed to exam because she could hardly answer any of the questions. She inquired from her friends on what to do and the friends advised her to find a way of becoming a friend to that lecturer so that his heart gets softened during marking. Then she bought a very nice shirt and gave it as a gift to the lecturer thanking him for teaching very well. The lecturer took the gift in good faith and both the student and the lecturer continued chatting as good friends. After marking of the exam scripts, the lecturer noticed that the student had failed the paper and informed her. The student pleaded to the lecturer for a favor and the lecturer got persuaded to make the student pass. The student told her

friends who advised to her and one of her friends reported the scenario to the Ethics Officer of the university.

a) Using your judgment as the Ethics Officer of the University, who is wrong and why? **(5 marks)**
b) Do you consider the shirt given to the lecturer as a gift or a bribe? Give reasons for your answer **(5 marks).**
c) Given at-least three differences between a gift and a bribe **(6 marks).**
d) Give one advice to the lecturer and one advice to the students **(4 marks).**

Question 5:

a) With examples, explain the difference between Morals and Ethics **(4 marks).**
b) Explain the four common approaches to ethical decision making and state examples of situations when they are used **(4 marks for each approach).**

Question 6:

Imagine your friend got a retake two (2) times in a given course-unit and now wants to bribe the lecturer of that course-unit with some money in-order to make them pass.

a) Explain to your friend about professionalism and how professionals should behave **(6 marks)**
b) How would you advice your friend on how to show professionalism at school? **(6 marks)**
c) How would you convince your friend about the personnel benefits of behaving in a professional way? **(8 marks)**

Question 7:

Imagine you have made a good name in administration of companies. Because of that prominence, you have been called upon to help in elevating a company which is on its edges of closing business. After

talking to some employees of that company, you realize that the company was found of producing poor quality products and doesn't work on resolving customer complaints. So customers slowly withdrew from buying the company products. As a trained IT Ethics professional, use the scenario to answer the questions below;

a) What new ideas would you give to the Board of Directors of that company? **(4 marks)**
b) What reasons would you give to the Board of Directors to convince them that your new ideas would work **(8 marks)**
c) What measures would you put in place to ensure that your new ideas would work and last long **(8 marks)**

Question 8:

Bob, the receptionist, has just resigned. While his manager, Stan needs to arrange for a permanent replacement. Stan is in the process of arranging for a permanent replacement by following the company's recruitment process. Betty, who works in the same section, has a daughter. Betty's daughter, Helen, has been working in a similar job in the private sector, and would be happy to do the work. Betty approaches stan and convinces him that her daughter can do the job. Betty got Helen's resume, and Stan could see that she is well qualified for the job. Betty convinced stan that it would be easier, quicker, more cost effective, and more efficient than getting Human Resources involved from the beginning. So stan decided to hire Helen without following the company's recruitment process because Helen had the merits for the job.

a) Is there anything wrong in the above Scenario, if so, who is wrong (4 marks)?
b) If you are to penalize, whom would you penalize (4 marks)?
c) What professional advice would you give and to whom would you give that advice (7 marks)?
d) What ethical approach to decision making would you employ when solving their issue and why (5 marks)

Question 9:

Your country is in a process of creating a law for freedom of expression. As the IT Ethics Minister, you have been contacted to give advice.

a) Give advice about clauses that would be include into the said law to prevent people from using the internet to violate their freedom of expression **(10 marks).**

b) Give advice about clauses that would be include into the said law to protect people from being robbed of their freedom of expression both online and offline **(10 marks).**

Question 10:

Tony, a data analyst for a major casino, is working after normal business hours to finish an important project. He realizes that he is missing data that had been sent to his coworker Robert. Tony had inadvertently observed Robert typing his password several days ago and decides to log into Robert's computer and resend the data to himself. Upon doing so, Tony sees an open email regarding gambling bets Robert placed over the last several days with a local sports book. All employees of the casino are forbidden to engage in gambling activities to avoid any hint of conflict of interest. Tony knows he should report this but would have to admit to violating the company's information technology regulations by logging into Robert's computer. He decided to warn Robert to stop his betting and he revealed his source of information. Robert got so angry and decided to report Tony to you the 'IT Ethics Officer' accusing him of illegally accessing his email. As the IT Ethics Officer,

a) Based on the above Scenario, who is wrong (5 marks)?

b) If you are to penalize, whom would you penalize (5 marks)?

c) What professional advice would you give and to whom would you give that advice (5 marks)?

d) What ethical approach to decision making would you employ when solving their issue and why (5 marks)

Question 11:

Your country is in a process of creating a law for Privacy over the internet. As the IT Ethics Minister, you have been contacted to give advice.

a) Give advice about the various ways in which people's privacy is invaded or violated using the internet **(10 marks).**

b) Give advice about clauses that would be include into the said law to protect people's privacy over the internet **(10 marks).**

Question 12:

In the wake of the most recent airline disaster in Asia, Uganda Airlines is seeking for a software development company to upgrade its aircraft safety software. The developed software must comply with the internationally set standards for quality software that are closely monitored by the International Civil Aviation Organization (ICAO). If you are to apply for this software development task, attempt the questions below;

a. a. Explain the 3 Quality Management Activities (6 marks).

b. b. Explain at least four software quality attributes (4 marks).

c. c. With an illustration, Explain the software Capability Maturity Model (CMM) **(10 marks).**