TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF MATHEMATICS & PHYSICS

UNIVERSITY EXAMINATION FOR:

Bachelor of Science in Statistics & COMPUTER SCIENCE

EIT 4301: ICT PROFESSIONAL ETHICS EXAM2

END OF SEMESTER EXAMINATION

SERIES:APRIL2016

TIME:2HOURS

DATE:Pick DateMay2016

<u>**Instructions to Candidates**</u>
You should have the following for this examination
-Answer Booklet, examination pass and student ID
This paper consists of **FIVE** questions. Attemptquestion ONE (Compulsory) and any other TWO questions.
Do not write on the question paper.

Question ONE

Ethics is a reflection on morality. It refers to the principles of right and wrong in making choices by individuals. It has been described as the art and science that seeks to bring sensitivity and methods to the discernment of moral values (Carbo, 2006). Thus, ethics guide human and societal behavior. Capuro (2006) had no difficulty in asserting that ethics is an unending quest on explicit and implicit use of the moral code. However, ethical issues in ICT persist: Talk of information privacy, data security, plagiarism, technology manipulation, the subject of social and ethical implications of Information and Communication technology has been addressed in the literature. As noted by Carbo (2006) ethical considerations for ICT related issues first appeared under the topic ''information ethics'' in the Annual Review of Information Science and Technology in 1992. This suggests that there is an ethical agenda associated with the use of ICT. Individuals and organizations therefore need to be ethically sensitive as they deploy ICT on their operations. The impact of ICT on human relationship has been tremendous. ICT has helped to enhance family relationship (e.g. mobile phones, palmtops, laptops, virtual conferencing and so on), as well help to separate family and friends from each other. A wide range of new laws, regulations, rules and practices are therefore needed if society is to manage these workplace and other changes and development brought about by ICT. Thus the society need to consider the following ethical and social challenges related to ICT use:

a. Define the term ICT ethics   [2 marks]

b. Outline Four Basic concepts in Ethics.   [5marks]

c. Describe five key characteristics of an Ethical Analysis [5 marks]

d. List TWO Differences between Ethics and Laws [4 marks]

e. Explain five ethical issues listed in the case study [10 marks]

f. Identify five key areas where ethical issues may arise for an organization [5 marks]

QUESTION 2[20 marks]

a. Explain the following social problems resulting from existence of computers:

    i. Software theft

    ii. Cyber crime

    iii. Computer misuse

    iv. Computer Crime

    v. Computer errors [10 Marks]

b. Identify four types of software licenses. [4 marks]:

c. Define the following ethical terms. [6 marks]

    i. Intellectual Property:
    ii. Trade Secret
    iii. Copyright:
    iv. Patent

QUESTION 3[20 MARKS]

a. Explain the following terms/phrases: (6 Marks)

    i. Contract
    ii. Software contract
    iii. Code of conduct

b. Both Ethics and Law complement each other when an individual is using ICT resources. Discuss any three differences between the two. [6 Marks]

c. Ethical choices are decisions made by individuals who are responsible for the consequences of their actions. Explain the following terms: (8 Marks)

    i. Responsibility
    ii. Accountability
    iii. Liability
    iv. *Due process*

Question 4 [20 marks]

a. Differentiate between a copyright and a patent. [2 marks]

b. Explain any five moral dimensions of the information age [10 Marks]

c. Explain any four key technological trends that raise ethical issues. [8 Marks]

QUESTION FIVE [20 marks]:

a. List five types of individual data held by institutions. [5 marks]

b. Outline five types of data that can be regarded as sensitive and personal. [5 marks]

c. State any FIVE commitments highlighted in IEEE code of ethics [5 Marks]

d. State the Five Acts that are covered by the Computer Misuse Act 1990 regarding the correct use of computers. [5 Marks]