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 EXAM1

END OF SEMESTER EXAMINATION

SERIES:APRIL2016

TIME:2HOURS

DATE:Pick DateMay2016

Instructions to Candidates
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

QUESTION ONE [30 marks]. CASE STUDY: COMPUTER ETHICS

Cybercrime or Computer crime can be defined as offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the reputation of the victim or cause physical or mental harm, or loss, to the victim directly or indirectly, using modern telecommunication networks such as Internet (Chat rooms, emails, notice boards and groups) and mobile phones. Such crimes may threaten a nation's security and financial health. Cybercrime can be put into two categories. Those that use computer as a target:- using a computer to attacks other computer, e.g. Hacking, virus/worms attacks, Dos attack etc. and those that use computer as a weapon :- using a computer to commit real world crime e.g. cyber terrorism, credit card fraud and pornography etc. Issues surrounding these types of crimes have become high-profile, particularly those surrounding hacking, copyright infringement, child pornography, and child grooming. There are also problems of privacy when confidential information is intercepted or disclosed, lawfully or otherwise. Internationally, both governmental and non-state actors engage in cybercrimes, including espionage, financial theft, and other cross-border crimes. The international legal system is attempting to hold actors accountable for their actions through the International Criminal Court as well as encouraging all countries that use the internet need to secure their cyberspace.

a. Define the term cybercrime.   [2 marks]
b. Identify two categories of cybercrime.   [2 marks]
c. Describe five types of cybercrime that are commonly in use.   [10 marks]
d. Explain five merits of securing cyber space for a country   [10 marks]

e. Explain how the following applications can be used to commit computer crime.

[6 marks]

    i.   Email
   ii.   Mobile phone
  iii.   Chat
  iv.   Notice board or bulletin boards

Question TWO

a. Define the term ethics in the context of information technology   [2 Marks]

b. Describe four primary factors that characterize computer ethics.   [6 marks]

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

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

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

e. Describe two ways in which software can be pirated.   [2 marks]

Question THREE

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 FOUR

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

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]