



Where Leaders are Made

UNIVERSITY EXAMINATIONS: 2025/2026

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY**

BSIT403

**PROFESSIONAL ISSUES IN IT
END TERM EXAMINATION**

DATE: DECEMBER, 2025

EXAM DURATION: 2 HOURS

TIME: 2:00PM-4:00PM

INSTRUCTIONS: Question One is Compulsory, Choose Three Other Questions

SECTION A (COMPULSORY)

QUESTION ONE (15 Marks) Compulsory

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.

Use the above case study to respond to the following questions

- i. Define the term cybercrime [2 Marks]
- ii. Identify two categories of cybercrime [3 Marks]
- iii. Describe five types of cybercrime that are commonly in use. [5 Marks]
- iv. Explain five merits of securing cyber space for a country [5 Marks]

SECTION B: (ANSWER ANY THREE (3) QUESTIONS IN THIS SECTION)

QUESTION TWO (15 marks)

- i. Define the term ethics in the context of information technology [2 Marks]
- ii. Describe four primary factors that characterize computer ethics. [6 marks]
- iii. Identify four types of software licenses. [4 marks]
- iv. Explain three ethical problems between members of the IT profession [3 marks]

QUESTION THREE (15 marks)

The IT industry is increasingly aware of its own environmental impact.

- i. Describe atleast three environmental problems to which the industry contributes and how, as an IT professional, you can help to solve this problem. [6 marks]
- ii. Using relevant examples describe at least four ethical principles [4 marks]
- iii. Describe any five essential elements relating to conduct that identify a professional activity [5 marks]

QUESTION FOUR (15 marks)

- i. China and North Korea place severe restrictions on Internet access within their countries, much of it ideologically based; discuss any four reasons why Kenyan government should or should not place any restrictions on Internet information available to its citizens especially in the advent of the use of social media to spread hate speech. [8 marks]
- ii. Discuss how to prevent the following health issues while using ICT [7 marks]
 - i. Eye strain
 - ii. Weight gain
 - iii. Repetitive Strain Injury
 - iv. Back problems
 - v. Stress
 - vi. Anxiety and Depression

QUESTION FIVE (15 marks)

- i. International law can refer to three distinct legal disciplines. State and give a brief description of these disciplines [3Marks]
- ii. There have been various technological innovations from Kenya in the recent years such as m-shamba and ma3route. Such innovations are considered to be part of intellectual property. In view of this, define the following terms ;
 - i. Intellectual property [1 Mark]
 - ii. Copyright [1 Mark]
 - iii. Patent [1 Mark]
 - iv. Trademark [1Mark]
 - v. Outline any three kinds of patents that can be issued to an individual/organisation [3 Marks]
- iii. Differentiate between ethics and morality [4 marks]
- iv. Using relevant examples describe at least four ethical principles [4 marks]

QUESTION SIX (15 marks)

Recently in the US and Europe, technologies for human enhancement have attracted public and scientific debate. While enhancement of human abilities has always been a goal for technology development, new technologies now directly intervene in human sensory and cognitive apparatus. Scientific input from neuroscience, nanotechnology (e.g. the development of devices and materials) as well computer science are fuelling the development of these emerging technologies. A major application of these technologies is neural implants and other brain-machine interface devices. Some of them are dedicated to medical purposes, e.g., to reconstruct visual and auditory sensory abilities (retina and cochlea implants). Other implants have direct consequences for language production and self control (deep brain stimulation for patients suffering from Parkinson's disease). Enhancement technologies can also be non-invasive like pharmaceuticals aiming at improving cognitive abilities but also regulating emotions. In some countries, the use of these substances has already produced concern about societal consequences. Part of this debate is also the increasing potential of neuroscience in analysing brain activity patterns by which thoughts and brain states can be identified. In the future, this can, for example, enhance possibilities to detect liars. These research results have triggered debate about the increasing control potential of these technologies, but also about the nature of the intervention in the "human condition" that is supposed to be altered.

Based on the case study above answer the following questions

- i. Discuss the main arguments and legitimisation efforts of for or against human enhancement [10 marks]
- ii. Discuss the societal consequences of use of enhancement technologies [5 marks]