



## ZIMBABWE EZEKIEL GUTI UNIVERSITY

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### FACULTY OF HEALTH, SCIENCE AND TECHNOLOGY

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#### DEPARTMENT OF DIGITAL TECHNOLOGY

#### EXAMINATION PAPER

**COURSE CODE** : CDT 113  
**COURSE TITLE** : COMPUTER ETHICS  
**DURATION** : 3 Hours  
**LEVEL** : 1.2  
**DATE** : 1 2021

#### **INSTRUCTIONS TO Examiners:**

1. Answer all questions.
2. The paper carries 100 marks.

### Question 1

a) Case 1: Preserving Contextual Integrity in a University Seminar-Professor Roberts teaches a seminar on social issues in computing to upper division undergraduate students at his university. Approximately half of the students who enrol in his seminar each semester are computer science (CS) students, whereas the other half are students majoring in humanities, business, etc. At the first class meeting for each seminar, Professor Roberts asks students to fill out an index card on which they include information about their major, their year of study (junior, senior, etc.), the names of any previous CS courses they may have taken (if they are non-CS majors), their preferred e-mail address, and what they hope to acquire. Has Professor Roberts done anything wrong in requesting and collecting this information?

[12]

b) Do some computer corporations, including searchengine companies and companies that develop autonomous systems, have any special societal obligations?

[8]

c) Describe a scenario where breaking into a computer could be ethically justified. Under what ethical framework would this scenario be considered ethical and why?

[5]

### Question 2

a) What are the steps for Moor's ethical framework of just consequentialism

[10]

b) How are cyber security issues similar to and different from privacy issues affecting cyber technology?

[5]

c) Describe one of the ethical implications, related to computers, imposed by the film *Hackers*.

[5]

d) What are professional codes of ethics, and what functions do they serve?

[5]

### Question 3

a) You run a small company that developed and markets a filter program to help parents filter out material they do not wish their children to access the Internet. A foreign government wants your company to develop a custom version of your program to be used on the country's Internet connection to filter out material the government does not wish its citizens to access. Give arguments in favor of accepting the contract and arguments against it. Is it ethically wrong to accept the contract? Would you accept it? Why or why not?

[15]

b) Suggest five reasons why online access to public records poses problems for personal privacy?

[5]

c) Disappointed with the NSA's surveillance programme, Edward Snowden

decided to whistle-blow, revealing to the world how the intelligence agency was spying on normal citizens. According to de George, what conditions must exist for Snowden to be justified in his whistle-blowing? Should he have whistle-blown? [5]

#### Question 4

- a) Case 4: Anonymous and the “Operation Payback” Attack In January 2012, a self-described hacktivist group called Anonymous launched a series of DDoS attacks against commercial and government Web sites, in response to two different incidents. For one thing, the group stated that its attack, called “Operation Payback,” was in retaliation against the (U.S.) Department of Justice for taking down Megaupload, a massive file-sharing site. For another, Anonymous stated that it was supporting the coordinated January 18 online protest against two controversial legislative proposals in the U.S. Congress: PIPA (Protect Intellectual Property Act) and SOPA (Stop Online Piracy Act). While most of the participants in this online protest, including Wikipedia and Google, used tactics that were nondisruptive, Anonymous launched DDoS attacks against the Web sites of organizations that supported the two congressional bills. The sites attacked included not only at the RIAA (Recording Industry Association of America) and MPAA (Motion Picture Association of America) sites but also at the sites for the U.S. Copyright Office and Broadcast Music, Inc. (BMI), which collects fees from businesses that use music. (The online protest involving SOPA and PIPA, as well as the controversial aspects of these two legislative proposals that sparked this protest. Can these attacks by Anonymous qualify as hacktivism?[12]
- b) Write an argumentative, academic essay in which you define and discuss the ‘Technological Singularity’. Do you think there is an ethical reason to promote/avoid technological progress that could potentially be harmful? [9]
- c) Name and discuss the two main forms of ethical codes.[4]

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