



MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

**FOURTH YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE IN INFORMATION
TECHNOLOGY**

MAIN CAMPUS

CIT 418: COMPUTER AND DEVELOPMENT

Date: 24th July, 2017

Time: 3.30 - 6.30 pm

INSTRUCTIONS:

- Answer question ONE and any other TWO questions



QUESTION ONE [30 MARKS]

- (a) Briefly explain what is meant by the term professionalism in the context of the computing industry [4 Marks]
- (b) Based on employer and employee perspectives, state two advantages and two disadvantages of employees working from home. [4 Marks]
- (c) Give Four purposes for processing data. [4 Marks]
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- (d) Ethically, there are 5 known main factors that may motivate a person into becoming a hacker namely, (i) *Curiosity* (ii) *Spying* (iii) *Intellectual Challenge* (iv) *Anarchy* (v) *Money*. With examples for each case, briefly explain. [10 Marks]
- (e) Giving examples to each scenario with involvement, explain how you would employ *physical* and *logical* security in a bank and higher institution of learning like Maseno University. [8 Marks]

QUESTION TWO [20 MARKS]

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- (a) The spread of new technologies has changed the way people interact and communicate, and has created a new community and societal for business, academics, escalation of development and others. However, the legal and moral structures of the existing laws may not hold in cyberspace which is causing desperations among societies, communities and cultural structures.

Explain the above statement, stating clearly the advantages and disadvantages of computer applications on societies. [8 Marks]

- (b) Briefly describe the following terms as used in legal aspect of IT applications [10 Marks]
- (i) Digital Signature
 - (ii) Copyrights and Intellectual Property
 - (iii) Privacy and use of information
 - (iv) Industry code of best practice
 - (v) Admissibility of digital documents
- (c) What is a computer crime? [2 Marks]

QUESTION THREE [20 MARKS]

- (a) Briefly discuss some of the ethical issues related to computer application [2 Marks]
- (b) What are some of the issues addressed by ICT legislation? [3 Marks]
- (c) What is Data Privacy? [2 Marks]
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- (d) Give any four issues that need to be addressed to ensure data is obtained and used correctly. [4 Marks]
- (e) List some measures to ensure email privacy. [3 Marks]
- (f) Identify four different types of computer crimes that are frequently committed [4 Marks]
- (g) Why would an employee use a robot or a computer instead of a person? [2 Marks]

QUESTION FOUR [20 MARKS]

- (a) Give two reasons to why drones are employed to replace human beings in carrying activities? [4 Marks]
- (b) Should a company that collects information of its employees be required to secure the employee's approval before using the data, or should the company be free to use the data in any way it feels is appropriate? Discuss [10 Marks]
- (c) Explain your understanding of the following terms: [6 Marks]
- (i) Artificial intelligence
 - (ii) Expert systems

QUESTION FIVE [20 MARKS]

- (a) Information security is guarded by the three arms of protection namely confidentiality, Integrity and availability, (CIA). Briefly explain the meaning of each of the three words. [6 Marks]
- (b) Define the following terms, bringing out technical used by attackers on information and computer installation. [10 Marks]
- (i) Denial of service
 - (ii) Spooling
 - (iii) Password cracking
 - (iv) FTP Bounce attacks
 - (v) Packet fragmentation attacks
- (c) Differentiate between a "White-hat" hacker and a "Black-hat" hacker. [4 Marks]