

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DIPLOMA IN COMPUTER SCIENCE

COSC 0100: INFORMATION TECHNOLOGY AND NATIONAL DEVELOPMENT

STREAMS:

TIME: 2 HOURS

DAY/DATE: TUESDAY 5/12/2017

11.30 A.M – 1.30 P.M

INSTRUCTIONS:

- **Answer question one and any other two from section B**
- **Do not write on this paper**

SECTION A {compulsory}

QUESTION ONE [30 MARKS]

- Explain any six benefits of e-commerce over traditional business. (6marks),
- Differentiate proprietary software from freed and open source software (FOSS) and give an examples in each of the category. (4 Marks)
- Differentiate between computer hardware and computer software. (1 mark).
- Discuss **TWO** negative effects of hacking to national development [4 marks].
- What is a web browser? List at least **FOUR** different web browsers that are Available for use by interested parties. (5marks).
- Computers have evolved through generations over the year's .list any **TWO** characteristics of the first generation computers. (2marks).
- a) Joram's computer recently started carrying out normal processes in a very unfamiliar manner .upon being checked by a technician ,it was stated that it had a virus.
 - Define the term computer virus. (1marks)
 - List Four ways of recognizing viruses. (4marks).
 - three ways of avoiding viruses (3marks)

SECTION B.

QUESTION TWO.(20MKS)

- a) Explain the impact of computers and technology in the following fields.
 - i. Education [2 marks]
 - ii. Science and research [2 marks]
 - iii. Business [2 marks]
 - iv. Tourism [2 marks]
- b) What is network topology? With the aid of diagrams ,explain any **TWO** topologies possible in computer networks (6marks).
- c) National security is important to any country. In Kenya, National security is necessary to achieve both Kenya Vision 2030 and the MDGs. Discuss **ANY THREE** contributions of IT to the achievement of National Security. (6marks).

QUESTION THREE. (20MKS)

- a) Discuss any three impacts of ecommerce to the society (6marks)..
- b) Differentiate between data and information (3marks).
- c) Identify any two indicators of National Development and explain how Information Technology may play a role in each. (6 marks).
- d) Discuss how information influences change in the society. (5 marks)

QUESTION FOUR. (20MKS).

- a) Discuss **THREE** contributions of IT to each of the following:
 - i. National Health (3marks)
 - ii. Economy of a country (3marks).
- b) Differentiate between system software and application software and give an example in each case. (2 Marks)
- c) Discuss 4 main functions of the operating system in a computer (8mrks).
- d) What is Data Security? Discuss different ways in which we can ensure data security. (4 marks).

QUESTION FIVE (20MKS).

- a) What are digital villages? (2 marks).
- b) Discuss the benefits of digital villages to National Development in Kenya (6 marks).
- c) Explain the role of IT in the digital villages. (2 Marks) .
- d) Discuss in detail how ICT can be used to achieve Goal 5 of the MDGs (10 marks).