CHUKA   **UNIVERSITY**

UNIVERSITY EXAMINATIONS

FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE AWARD OF DIPLOMA IN COMPUTER SCIENCE

COSC 0100: INFORMATION TECHNOLOGY AND NATIONAL DEVELOPMENT

STREAMS: DIP. COMP.SCI   **TIME: 2 HOURS**

DAY/DATE: MONDAY 15/4/2019   **11.30 A.M. – 1.30 P.M.**

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

SECTION A (compulsory)

QUESTION ONE (30MARKS)

a) Differentiate between data and information   (2 marks)

b) Explain the term is information system security?

   (2 marks)

c) Evaluate **four** threats to information systems   (4 marks)

d) Describe **five** measures that can be used to control threats to information systems   (6 marks)

e) Explain in summary the Kenya Vision 2030   (6 marks)

f) State any five sustainable development goals known to you   (5 marks)

g) Differentiate between system software and application software and give an example in each

   case.   (2 marks)

h) Highlight any **THREE** main functions of the operating system in a computer   (3 marks)

SECTION B: ANSWER ANY TWO QUESTIONS FROM THIS SECTION.

QUESTION TWO (20MARKS)

A school has decided to network its computers so that it can distribute information over a local intranet. The school also intends to connect the local network to the internet.

i.   Describe three different topologies that could be used to network the computers

(9 marks)

ii.   State the four major components that are required to make internet accessible   (4 marks)

iii.   Identify three search engines that can be used to easily search for the information in the internet   (3 marks)

iv.   State Four advantages the school will enjoy after networking its computers   (4 marks)

QUESTION THREE (20MARKS).

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)

QUESTION FOUR (20MARKS)

a) Explain your understanding of social media and identify any **TWO** examples of social media

(2 marks)

b) Highlight any **FIVE** benefits a business organization can achieve by use of social media.

(10 marks)

c) Discuss **ANY FOUR** negative effects of social media to the development of a Country

(8 marks)

QUESTION FIVE (20MARKS)

 a) Microsoft Office 2010 is a suite of computer packages that provides tools for utilization of information technologies. Identify at least **FIVE** of the packages in the Microsoft Office 2010 suite highlighting when you would use each   (5 marks)

b) What is a web browser? List at least **FOUR** different web browsers that are available for use by interested parties (5 marks)

c) Identify and discuss **FOUR** social engineering tactics hackers use to gain access to computers (6 marks)

d) Discuss **TWO** negative effects of hacking to national development (4 marks)