

THARAKA



UNIVERSITY

COLLEGE

(A Constituent College of Chuka University)

UNIVERSITY EXAMINATIONS

**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: WEDNESDAY 15/04/2020

2.30 PM – 4.30 PM

Candidates' instructions

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

SECTION A {compulsory}

QUESTION ONE (30MARKS).

- Differentiate between data and information. (2 marks)
- Explain the term is information system security? (2 marks)
- Evaluate **four** threats to information systems. (4 marks).
- Describe **five** measures that can be used to control threats to information systems(6marks).
- Explain in summary the Kenya Vision 2030. (6 marks).
- State any five sustainable development goals known to you (5marks).
- Differentiate between system software and application software and give an example in each case. (2 marks)
- Highlight any **THREE** main functions of the operating system in a computer (3marks).

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 (8marks).

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).
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