

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE IN BACHELOR SCIENCE
IN OF COMPUTER SCIENCE**

COSC 100: INFORMATION TECHNOLOGY AND NATIONAL DEVELOPMENT

STREAMS: BSC. COMPUTER SCIENCE

TIME: 2 HOURS

DAY/DATE: THURSDAY 13/04/2023

11.30 A.M. –1.30 P.M.

Instructions

SECTION A: Answer all questions in this section

QUESTION ONE (30 MARKS)

- a) Explain what development means (2 Marks)
- b) Differentiate between data, information and knowledge (6 Marks)
- c) Identify and describe any three Kenya Vision 2030 flagship projects (6 Marks)
- d) Explain any four ways through which computer networks encourage national development (4 Marks)
- e) Explain four MDGs (8 Marks)
- f) Oloo wants to install Application software on his computer. Highlight four categories of application software that he could install. (4 Marks)

SECTION B: ANSWER ANY TWO QUESTIONS FROM THIS SECTION

QUESTION TWO (20 MARKS)

a) ICT policy should be defined and appropriately enforced to ensure efficient utilization of ICT in an organization.

i. Explain what an ICT policy is (2 Marks)

ii. Describe in detail any four contents of an ICT policy (8 Marks)

iii. Explain three enforcement measures that could be used to ensure adherence to the policy (6 Marks)

b) Discuss how ICT can be used to achieve Goal 6 of the SDGs (4 Marks)

QUESTION THREE (20 MARKS)

a) Mary presented in a workshop a presentation on “Stress Management to ICT staff”. Explain three stress management strategies that she could have highlighted. (6 Marks)

b) Explain the role of primary keys when designing a Database Application. (4 Marks)

c) Daniel is in charge of ICT in a certain Organization. In a meeting he communicated to ICT staff that the Organization has been advised to procure proprietary software from then hence forth.

i. Outline five benefits the Organization could realize from use of proprietary software. (5 Marks)

ii. Outline five disadvantages the Organization is likely to face by adapting proprietary software. (5 Marks)

QUESTION FOUR (20 MARKS)

a) Giving real examples, describe four applications areas of ICTs in healthcare (4 Marks)

b) Highlight the pillars of Kenya Vision 2030 and describe each in brief (6 Marks)

c) Discuss with reasons the role of Fiber Optic implementation to National Development in Kenya (10 Marks)

QUESTION FIVE (20 MARKS)

a) Discuss five impacts of IT and internet to National development (10 Marks)

b) Briefly highlight the role of the UN in development (4 Marks)

c) Discuss the role a Computer Scientist could play to achieve Goal 13 of the SDGs (6 Marks)