



UNIVERSITY EXAMINATIONS

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

COSC 100: INFORMATION TECHNOLOGY AND NATIONAL DEVELOPMENT

STREAMS: BSC. COMP. SCI

TIME: 2 HOURS

DAY/DATE: TUESDAY 30/03/2021

2.30 P.M. – 4.30 P.M

**INSTRUCTIONS: Answer ALL questions in section A and any other TWO in
section B.**

SECTION A (COMPULSORY - 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 projects namely Kenya Vision 2030 flagship projects [6 Marks]
- d) Explain any four ways through which computer networks encourage national development [4 Marks]
- e) List and 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]

COSC 100

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]