

**PAN AFRICA CHRISTIAN UNIVERSITY
EXAMINATIONS PAPER**



PAN AFRICA CHRISTIAN UNIVERSITY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

END OF SEMESTER EXAMINATION

DEPARTMENT: COMPUTING AND INFORMATION TECHNOLOGY

COURSE CODE: BIT/BICT 100

COURSE TITLE: FUNDAMENTALS OF COMPUTING

EXAM DATE: DECEMBER, 2022

TIME: TUESDAY 5PM-7PM

INSTRUCTIONS

- This exam script has **TWO (2)** sections.
- Read all questions carefully before attempting.
- Answer All questions in Section **A** and any other Three questions in Section **B**.
- Write only your **student number** on the answer booklet provided.
- None programmable calculator permitted
- Calculators on phones, tablets and computers are NOT permitted in Theory Papers

SECTION A

(Answer ALL questions in this section)

QUESTION ONE

Case study:

As COVID-19 has accumulated mystified characteristics, with little or no research have been conducted on how some of the existing clustering techniques can be applied on COVID-19 data. As an attempt to address challenges of pandemic amid other technical and economic factors. Technology is perhaps the strongest factor shaping the educational landscape today amid COVID-19 restrictions. Many school are prepared and

showing support for increased levels of technology in the classroom by providing hardware such as tablets and computers, enhancing internet connectivity, and implementing programs designed to improve computer literacy for both teachers and students. Although teachers generally appreciate the benefits of educational technologies, they often find smooth and effective integration of new educational technologies challenging. From acquisition of new technology equipment to adaptation of curricula and teaching techniques to incorporate new educational tools, technology integration presents significant challenges to educators at each level of school systems would imperative for young students countrywide.

a) Discuss **THREE** barriers to the successful integration of technology into the classroom **(6 Marks)**

b) Discuss any **FOUR** applications or technology patterns researchers can apply to trace the spread of COVID-19 in Kenya, use appropriate examples to justify your answer. **(4 Marks)**

SECTION B (Answer Any Three (3) Questions)

QUESTION TWO

a) Explain the below listed functions of operating systems:

i) Device Management **(2 Marks)**

ii) Support disk and file systems **(2 Marks)**

b) Discuss any **TWO** options that enterprises/organizations can adopt to store large chunks of data accumulated over the organization. **(2 Marks)**

c) A certain company has established that its information is electronically eavesdropped through telephone lines. Explain **TWO** measures that the company could put in place to minimize this crime

(4 Marks)

QUESTION THREE

- a) By means of an example, distinguish between an operating system and anti-virus software. **(4 Marks)**
- b) Describe the functional characteristics and applicability of the following:
- i) ROM **(2 Marks)**
 - ii) RAM **(2 Marks)**
- c) Convert the following numbers as appropriate:
- i) 89.25_{10} to binary **(2 Marks)**
 - 010011.101_2 to decimal **(2 Marks)**

QUESTION FOUR

- a) Explain any **TWO** points you would bear in mind when making a Microsoft PowerPoint presentation. **(2 Marks)**
- b) Differentiate between **cache** and **buffer** **(2 Marks)**
- c) Discuss the work and usefulness of a **BIOS** on a computer system. **(3 Marks)**
- d) Explain the term POST (Power-on self-test) as it relates to the computer world. **(3 Marks)**

QUESTION FIVE

- a) Discuss **THREE** measures that the government can put in place to avoid the spread of computer viruses in any given facilities **(6 Marks)**
- b) Discuss **TWO** moral issues that may arise from the use of technology stating recommendations in managing them **(4 Marks)**

QUESTION SIX

- a) Describe any **THREE** communication hardware that may be required in setting up a network **(6 Marks)**
- b) Discuss how secondary storage differs from primary storage **(4 Marks)**