



TECHNICAL UNIVERSITY OF MOMBASA

INSTITUTE OF COMPUTING AND INFORMATICS

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:

DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY

ECS 2101: Computer Systems & Organization

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2018

TIME: 2 HOURS

DATE: Pick Date Aug 2019

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other **TWO** questions.

Do not write on the question paper.

Question ONE

a) Differentiate between the following terms

- i. Data
- ii. Information
- iii. Program
- iv. Hardware

(8 Marks)

b) Perform the following conversions

(12 Marks)

- i. 111010_2 to Decimal
- ii. 110010_2 to Decimal
- iii. 42510 to Binary
- iv. 409410 to Binary

Question TWO

- a) Explain how the use of computers can affect the health of users. (10 Marks)
- b) Describe the various ICT equipment found in an organization. (10 Marks)

Question THREE

- a) Briefly explain any SIX input/output devices stating their area of application. (12 Marks)
- b) Explain the different software components that can be found in any computer installation. (8 Marks)

Question FOUR

- a) List the SIX components of computer hardware and explain their functions. (12 Marks)
- b) Explain the memory hierarchy as used in computing providing examples of each category (8 Marks)

Question FIVE

- a) Describe the roles of the following computer personnel found in an ICT organization
 - i. Computer programmer
 - ii. Systems Analyst
 - iii. Network Administrator
 - iv. Computer Operator
 - v. Computer Technician (10Marks)
- b) Explain the distinguishing feature of the first four computer generations. (8 Marks)
- c) Explain the meaning of the term utility program (2 Marks)