



TECHNICAL UNIVERSITY OF MOMBASA
INSTITUTE OF COMPUTING AND INFORMATICS

UNIVERSITY EXAMINATION FOR:

DICT

ECS 2101: COMPUTER SYSTEMS & ORGANISATION: Type unit name.

END OF SEMESTER EXAMINATION

SERIES: APRIL 2016

TIME: 2 HOURS

DATE: Pick Date Select Month Pick Year

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 any **THREE** questions.

Do not write on the question paper.

PAPER 2

QUESTION ONE

- a) Explain the functions of operating systems (12 marks)
- b) State any three examples of operating systems (3 marks)
- c) Explain the classification of computer software (5 marks)

QUESTION TWO

- a) Explain the classification of computers according to size (10 marks)
- b) Explain five areas of application of computers (10 marks)

QUESTION THREE

- a) Convert the following numbers into binary (6 marks)
 - i) 48
 - ii) 0.125
 - iii) 48.125
- b) Perform the following binary arithmetics (6 marks)
 - i) $110110 + 111011 + 110011$
 - ii) $110111 - 111011$
- c) Explain the following coding systems

- i) BCD
- ii) EBCD

(8 marks)

QUESTION FOUR

- a) Explain the goals of ergonomics (6 marks)
- b) Explain the factors that support a healthy computing guide (14 marks)

QUESTION FIVE

- a) With the help of a well labeled diagram, explain the components of a computer (14 marks)
- b) State six advantages of using computers (6 marks)