



TECHNICAL UNIVERSITY OF MOMBASA

EXAMINATION RUBRIC

SERIES : DECEMBER2016
FACULTY : Institute of Computing and Informatics
DEPARTMENT : Select department
CLASS :
BSEE/16S/J+FT-(EEE) BACHELOR OF SCIENCE
ELETRICAL
ENGINEERING

Type class Name Type class Name

Type class Name Type class Name

MODE OFFERED : Type class Name Type class Name

Departmental paper

UNIT CODE : COMP4112: FUNDAMENTALS OF COMPUTING

Type unit code : Type unit name.

Type unit code : Type unit name.

EXAM DURATION : 2 Hours

NO. OF STUDENTS : 50

DATE OF SUBMISSION: Pick Date Dec 2016

INSTRUCTIONS TO CANDIDATES

The paper consists of Choose Nochoose Sect/Quest. Attempt Choose instruction.

NAME OF SETTER : JEFWA NGOMBO SIGNATURE: _____

NAME OF MODERATOR : _____ SIGNATURE: _____



TECHNICAL UNIVERSITY OF MOMBASA
INSTITUTE OF COMPUTING AND INFORMATICS

Select department

UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE ELECTRICAL ENGINEERING
COMP4112: FUNDAMENTALS OF COMPUTING
END OF SEMESTER EXAMINATION
SERIES: DECEMBER 2016

TIME: 2 HOURS

DATE: Pick Date Dec 2016

Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of Choose No questions. Attempt Choose instruction.

Do not write on the question paper.

Question ONE

- a)(i) Briefly explain the concept of computing (2marks)
- b)(i) Explain the four fundamental operations of a computer (4marks)
- (ii) Explain the functional units that constitute a computer system and respective functions (8 marks)
- (iii) Explain the digital nature of the computer (3 marks)
- (1v) Explain the representation of software in the digital computer (3 marks)
- c) Explain the various data representation and organization in the computer, from physical to logical levels

Question TWO

- (a) Describe five aspects on hardware that you would consider, giving reasons, in deciding whether it is suitable for electrical engineering design and testing (10)
- b) Explain how computer hardware has become faster, cheaper, conveniently smaller (10 marks)

Question THREE

Computers need to exchange data between them to enable communication.

Explain the various channels ,software technologies that have been developed and their areas of application in data communication

(20marks)

Question FOUR

A team of electrical engineers are working concurrently on a design for electrical system of a building.

Explain the features of the various software , hardware and any other infrasture necessary to enable them work concurrently

(20 marks)

Question FIVE

- (a) Explain the following terms in computer networks, indicating the respective purpose for each:

LAN	(3marks)
WAN	(3marks)
INTERNET	(3marks)
ROUTER	(3marks)
GATEWAY	(3marks)

- b) Use of computers entails the taking of precautions against some associated threats.

Identify and briefly explain three security requirements and one example measure against a threat in computing.

(5 marks)