



THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of JKUAT)

(A Centre of Excellence)

Faculty of Applied & Health Sciences

DEPARTMENT OF MATHEMATICS & PHYSICS

**UNIVERSITY EXAMINATION FOR:
BACHELOR OF SCIENCE IN MATHEMATICS & COMPUTER SCIENCE
(BSC. MCS)**

ICS 2100: INTRODUCTION TO COMPUTER SYSTEMS

END OF SEMESTER EXAMINATION

SERIES: DECEMBER 2012

TIME: 2 HOURS

Instructions to Candidates:

You should have the following for this examination

- *Answer Booklet*

This paper consist of **FIVE** questions

Answer question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **TWO** printed pages

Question One (Compulsory)

a) Briefly explain the following:

- (i) Operating systems
- (ii) General purpose software
- (iii) Main memory
- (iv) Input/Output Devices

(20 marks)

b) Explain the benefits and limitations of using computers. **(10 marks)**

Question Two

a) Explain how the computer processes data and instructions given by the user. **(15 marks)**

b) Explain secondary storage devices. **(5 marks)**

Question Three

Explain the advantages and disadvantages of using word processing systems. **(20 marks)**

Question Four

Briefly explain the following features of spreadsheets:

(i) What-if-analysis

(ii) Scenarios

(iii) Macros

(iv) Formulas

(20 marks)

Question Five

a) Explain the importance of using database management systems over traditional file processing system. **(10 marks)**

b) Explain the different types of relationships formed between tables in databases. **(10 marks)**