



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR**

**SCHOOL OF SCIENCE AND INFORMATION SCIENCES
UNIVERSITY EXAMINATIONS FOR THE DEGREE OF BACHELOR
OF SCIENCE [MATHEMATICS]**

FOURTH YEAR SECOND SEMESTER EXAMINATIONS

**COURSE CODE: COM 410
COURSE TITLE: DATA PROCESSING**

DATE: 25TH APRIL 2018

TIME: 8:30AM-10:30AM

INSTRUCTIONS

- Answer Question ONE and any other TWO

SECTION A

QUESTION ONE (COMPULSORY 30 MARKS)

- a. Convert decimal number 0.546875 to binary [4 Marks]
- b. Compute +7 – 12 using 2s compliment [4 Marks]
- c. Discuss three data processing concepts [6 Marks]
- d. Discuss the three basic logic gates [6 Marks]
- e. What is data processing [2 Marks]
- f. Discuss any four steps involved in the data processing cycle [8 Marks]

SECTION B

QUESTION TWO

- a. Discuss five data processing activities [10 Marks]
- b. Discuss four ways of managing output results from data processing systems [8 Marks]
- c. What is a system [2 Marks]

QUESTION THREE

- a. Discuss the following types of processing systems citing examples of each
 - i. Manual data processing system [6 Marks]
 - ii. Mechanical data processing system [6 Marks]
 - iii. Electronic data processing [6 Marks]
- b. Outline the similarities between Manual data processing and electronic data processing [2 Marks]

QUESTION FOUR

- a. Define the following terms as used in data organization
 - i. Data Item
 - ii. Field
 - iii. Record
 - iv. File
 - v. Database [10 Marks]
- b. Outline the differences between the following
 - i. Variable and Fixed Length Records [4 Marks]
 - ii. Logical and Physical Record [4 Marks]
 - iii. Data and information [2 Marks]

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