

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2014/2015 ACADEMIC YEAR**

**SECOND YEAR SECOND SEMESTER EXAMINATIONS**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN AGRICULTURAL ECONOMICS AND RESOURCE MANAGEMENT**

**COURSE CODE: ARE 200**

**COURSE TITLE: INTRODUCTION TO COMPUTER APPLICATIONS (3 UNITS)**

**TIME: 3 HOURS**

**INSTRUCTIONS TO CANDIDATES:**

Answer Question **ONE** and any other **THREE** Questions

**Question One (25 Marks) (Compulsory)**

1. Distinguish between computer software and hardware. Give an example in each case. (4 marks)
2. Highlight five factors to consider when buying computer hardware. (5 marks)
3. Distinguish between network architecture and network topology, give an example in each case. (5 marks)
4. While networking computers, different topologies can be applied. Highlight five factors to consider when choosing a network topology. (5 marks)
5. Describe three components that make up a computer processor. (6 marks)

**Question Two (15 marks)**

1. Explain how operating systems manages the following: (8 marks)
2. Process
3. Memory
4. File
5. Security
6. What is database? Discuss three benefits of using distributed databases in computing. (7 marks)

**Question Three (15 marks)**

1. Discuss any three network topologies. In each case state two strengths and limitations. (8 marks)
2. Discuss the impact of internet in education, agriculture and farmers extension services in Kenya. (7 marks)

**Question Four (15 marks)**

1. Explain the operations and applications of the following input/output devices. (8 marks)
2. Bar code reader
3. Magnetic ink character reader
4. Optical Mark Reader
5. Explain why the following types of memories are referred to as: (4 marks)
6. Read Only Memory (ROM)
7. Random Access Memory (RAM)
8. Highlight three attributes of Primary memory. (3 marks)

**Question Five (15 marks)**

1. ROMs can be used for different functions depending on their attributes. Describe three types of ROMs. (6 marks)
2. Explain how computers can be classified according to purpose and functionality. (4 marks)
3. Highlight five limitations of using e-mails as a method of communications. (5 marks)