

**UNIVERSITY OF KABIANGA**  
**UNIVERSITY EXAMINATIONS 2016/2017 (SUPPLEMENTARY)**  
**SCHOOL OF SCIENCE**

**UNIVERSITY EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE**

**SECOND YEAR SECOND SEMESTER EXAMINATION**

**COURSE CODE: COM 210**

**COURSE TITLE: INTRODUCTION TO COMPUTERS**

**INSTRUCTIONS**

Answer Question **ONE** and any other **TWO**

**SECTION A: COMPULSORY**

**QUESTION ONE [30 MARKS]**

Answer Question One and any other two questions

Question One

(a) Define the following terms: (3 marks)

(i) Computer

(ii) Software

(iii) Hardware

(b) Using relevant examples, explain the differences between the following (4 Marks)

(i) Analog and digital computer

(ii) Information and data

(c) (i) List the components of computer hardware (2 Marks)

(ii) Describe the hardware components listed in (c) (i) above.

(4Marks)

(d) (i) Using appropriate examples, distinguish between application software and system software. (2 Marks)

(ii) With relevant examples, distinguish between operating system and utility software. (2 Marks)

(e) With reference to spreadsheets, distinguish between the following terms.

- (i) Label and Number entries (2 Marks)  
(ii) Formula and Function
- (f) (i) Discuss two uses you may have for word processors. (2 Marks)  
(ii) What is the purpose of formatting a document (2 Marks)
- (g) (i) Describe any three services offered by the Internet. (2 Marks)  
(ii) State any two advantages of email over post office mail (1 Marks)
- (h) (i) State any two reasons why an organization may prefer using computer systems as opposed to manual systems. (2 Marks)  
(ii) Describe any two functions of spreadsheets. (2 Marks)

### **QUESTION TWO [20 MARKS]**

- (a) Describe the first generation of computers based on the following. (10 Marks)
- (i) Hardware
  - (ii) Software
  - (iii) Physical appearance
  - (iv) Computing characteristics
  - (v) Their applications
- (b) Describe the five characteristics of a computer. (5 Marks)
- (c) State three advantages and two disadvantages of using computers to perform tasks as opposed to human beings. (5 Marks)

### **QUESTION THREE [ 20 MARKS]**

- a) Briefly describe any four health and safety hazards that are related to working with computer. For each state what an employer must do to minimize this risk. (4 marks)
- b Describe two types of Network topologies. (2marks)
- c i) Describe the following Networks. (6marks)

- ii) Bus Topology
- iii) Star Topology
- iv) Mesh Topolog

d. Give two differences between a LAN and WAN. (4 marks)

d) Give and explain five features of a good user-friendly software package. (4 marks)

#### QUESTIONFOUR [20 MARKS]

- a). Data may be corrupted by hackers, viruses or machine malfunction.
  - i) List two software methods of preventing unauthorized access to data. (2 marks)
  - ii) Give one physical method of preventing unauthorized access to data. (1 mark)
  - iii) Briefly explain what a computer virus is. (2 mark)
  - iv) Give four precautions that should be taken to avoid corruption of data by viruses. (4 marks)
  - v) What should be done to avoid losing data when a machine malfunctions.(2 mark)
- b). Data must be kept confidential for reasons of commercial confidentiality and because of people's natural right to privacy
  - i) In this context explain what is meant by safe disposal of waste. (3 marks)
  - ii) Explain what encryption is and how this technique can help keep data private. (2 marks)
  - iii) Explain four functions of the basic components of a digital computer. (4 marks)

#### QUESTION FIVE [20 MARKS]

- a. Give a brief description of the FIVE generations of computers and highlight their major difference and advantages. [10 marks]
- b. Discuss the five characteristics of computer systems. [10 Marks]