



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS**

**UNIVERSITY EXAMINATION FOR THE DEGREE OF
BACHELOR OF EDUCATION ARTS/ ECDE/ SPECIAL NEEDS
BACHELOR OF ARTS IN DEVELOPMENTAL STUDIES
BACHELOR OF SCIENCE IN ANIMAL PRODUCTION
BACHELOR OF SCIENCE IN SOIL SCIENCES
BACHELOR OF SCIENCE IN FOOD SCIENCE
1ST YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR
MAIN CAMPUS**

COURSE CODE : SCS 3111
COURSE TITLE : COMPUTER ORGANIZATION AND APPLICATION
EXAM VENUE : STREAM :
DATE : DEC 2016 EXAM SESSION :
TIME : 2.00 HOURS

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on the question paper**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE 30 MARKS

- a) Define the following terms
- i. A computer 2 Marks
 - ii. A byte 2 Marks
 - iii. Computer hacking 2 Marks
 - iv. The Web 2 Marks
- b) List any **FOUR** factors to be considered when buying a laptop 4 Marks
- c) Discuss any **THREE** characteristics of an operating system 3 Marks
- d) Explain any **TWO** functions of an operating systems 2 Marks
- e) A friend has just bought a new computer and needs an internet connection at home. Advice on the hardware, software and other requirements for him to connect to the internet. 4 Marks

QUESTION TWO 20 MARKS

- a) Differentiate between the following
- i. Cold Booting and warm Booting 2 Marks
 - ii. Spyware and adware 2 Marks
 - iii. Operating system and utility programs 2 Marks
 - iv. Differentiate between the main features of ROM and RAM 4 Marks
- b) Draw a block diagram to illustrate the basic organization of computer system and explain the function of various units. 10 Marks

QUESTION THREE 20 MARKS

- a) Give any **TWO** advantages of using a word processor 2 Marks
- b) Lavine wants to create a document using Microsoft word 2010. She does not know how to use any word processor. Explain to her how she would open Microsoft word 2010 and create a new document. 4 Marks
- c) Give keyboard shortcuts to the following commands 4 Marks
- i. Bold face,
 - ii. Underline,
 - iii. Right align,

- iv. Copy
- d) State and explain any **THREE** features of spreadsheet program that can allow a user to work more productively 6 Marks
- e) Give Microsoft Excel formulas for doing the following 4 Marks
 - i. Changing from lower to upper font case
 - ii. Finding Standard Deviation (SD) of a number of students marks

QUESTION FOUR 20 MARKS

- a) Describe the **FOUR** basic steps of a machine cycle 4 Marks
- b) Giving an example of a master boot virus explain how it infects a machine, its payload and a method of its detection / removal 6 Marks
- c) Convert the following numbers from one number system to the indicated number system.(show your working)
 - i. $(101101.01)_2 = (\quad)_{10}$ 2 Marks
 - ii. $(572)_{10} = (\quad)_8$ 2 Marks
 - iii. $(3572)_{10} = (\quad)_2$ 2 Marks
 - iv. $(3572)_8 = (\quad)_{16}$ 2 Marks
 - v. $(BABA)_{16} = (\quad)_2$ 2 Marks

QUESTION FIVE 20 MARKS

- a) Differentiate between the following
 - i. Website and a blog 2 Marks
 - ii. URL and URN 2 Marks
 - iii. BOT and VIRUS 2 Marks
 - iv. RAT and a Mouse 2 Marks
 - v. Web browser and a search engine 2 Marks
- b) What is a protocol as used in network/ data communications 2 Marks
- c) Explain any **FOUR** aspect of communications that are determined by a protocol 8 Marks