



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**SCHOOL OF BUSINESS AND ECONOMICS & SCHOOL OF HEALTH SCIENCES**  
**UNIVERSITY EXAMINATIONS: 2013/2014**  
**SCS 3111: COMPUTER ORGANIZATION AND APPLICATION**  
**KISUMU LEARNING CENTER**

**DATE: DECEMBER 2013**

**TIME: 2 HOURS**

**INSTRUCTIONS:**

- i. This paper contains five (5) questions.
- ii. Question ONE is Compulsory and any other TWO questions
- iii. Answer the questions on the booklet provided
- iv. Mobile Phones are not allowed in exams room

**Question One (COMPULSORY- 30 Marks)**

- a. State and explain 5 basic operation performed by any computer system [5mks]
- b. using a diagram represent the processor and memory architecture of a computer [10mks]
- c. state and explain 5 characteristic of a PCs computer [5mks]
- d. explain five important factors you would consider when purchasing a computer [10 mks]

**Question two**

- a. Explain the following type of computer processor technologies [6mks]
  - i. CISC processor
  - ii. RISC processor
  - iii. EPIC processor
- b. Define the following terms in the context of disk storage [6mks]
  - i. Access time
  - ii. Seek time
  - iii. Latency-
- c. list and explain the key properties used to characterize and evaluate storage unit of computer system [8mks]

**Question three**

- a. Differentiate between the following terms as used in computer system and organization [4mks]
  - i. Impact and non impact printer

- ii. Analog computers and digital computer
- b. Explain the logical parts of a computer diagrammatically [10mks]
- c. Explain three application areas of computers in the following areas, health, transport and education [6mks]

**Question four**

- a. Describe the generation of computers [10mks]
- b. Different between the following giving any similarities or difference between then [8mks]
  - i. MICR and OCR
  - ii. Serial and parallel port
  - iii. BMP and JPG
  - iv. RAM and ROM.
- c. describe the full names of the following acronyms [2mks]
  - i. DAT
  - ii. RAID

**Question Five**

- a. Define the following number system [8mks]
  - i. Binary
  - ii. Decimal
  - iii. Octal
  - iv. Hexadecimal
- b. Convert the following [8mks]
  - i. 2710 to binary
  - ii. 10011012 to decimal
  - iii. 21610 to octal
  - iv. 4510 to binary
- c. Explain the following technologies used in computer system and organization [4mks]
  - i. Expansion card
  - ii. MODEM