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. 27_{10} to binary
    ii. 1001101_2 to decimal
    iii. 216_{10} to octal
    iv. 45_{10} to binary
c. Explain the following technologies used in computer system and organization   [4mks]
    i.   Expansion card
    ii.   MODEM