



MURANG'A UNIVERSITY COLLEGE (MRUC)
A constituent College of Jomo Kenyatta University of Agriculture and Technology

BIT 2102 COMPUTER ORGANIZATION – SUPP/SPECIAL

DATE: APRIL 2013

TIME: 2 HOURS

INSTRUCTIONS

ANSWER QUESTION 1 AND ANY OTHER 2 QUESTIONS

QUESTION ONE:

a) Explain the role of the following utility programs I optimizing the performance of a computer system.

- i) Scan disk
 - ii) Disk cleanup
 - iii) Back up
 - iv) System restore
 - v) Defrag
- (10 mks)

b) Briefly discuss the four foundations for which computers are classified. (8mks)

c) Describe the following memory elements of the memory map as used in memory Management.

- i) Conventional Memory
 - ii) Expanded memory
 - iii) Extended memory
 - iv) High memory Area (HMA)
 - v) Virtue memory
- (10mks)

QUESTION TWO

a) Describe the implementation of any five scheduling algorithm. (20mks)

QUESTION THREE

Work out the following.

- i) $11001101001_2 + 11001101_2$
 - ii) $1010110111_2 + 11010101_2$
 - iii) $10101011_2 - 101010_2$
 - iv) $54_8 + 54_8$
 - v) $AE_{16} + A5_{16}$
- (10mks)

b) Describe the three basic logic gates - AND, OR, and NOT. showing.

- i) Symbols and Boolean expression
- ii) Truth table
- iii) Logic circutes

QUESTION 4

- a) Describe the process of creating a start up disk in windows environment. (6mks)

- b) Define the boot sector virus (2mks)

- c) List four sources of virus (4mks)

- d) Outline **FOUR** symptoms of a virus (4mks)

- e) State any **FOUR** precautions for handling a storage mechum to avoid loss of data. (4mks)