KENYA METHODIST UNIVERSITY
END OF FIRST TRIMESTER 2007 EXAMINATIONS

DEPARTMENT	:	**MATHEMATICS &COMPUTER SCIENCE**
COURSE CODE	:	**DCIS 203/ CISY 303**
COURSE TITLE	:	**Computer Hardware and Maintenance**
TIME	:	**3 HOURS**
LECTURER	:	**B. Kariuki**

1. What is the difference between ATX, AT and NLX motherboards? (2 Marks)

2. Define and state the use of the following elements:

   a. Multiplexer
   b. FSB
   c. CPU
   d. Real mode
   e. Adaptor Cards
   f. PCI
   g. DDR
   h. SDRAM
   i. IEEE 1394
   j. DMA (10 Marks)

3. List and describe the uses of any of the 5 (Five) devices connected PCI slot, what devices are connected through sockets (10 Marks)

4. Describe the difference between P4 CPU and a slot- P3 CPU.

Briefly explain what is meant by

   a. Chipsets
   b. IRQ
   c. controller (6 Marks)

5. You are experiencing static problems and suspect the carpet in your work area. How can you reduce this hazard if removing the carpet is not an option? (2 Marks)

Part 1 Section B: Attempt any of the two parts

Part one

6. You have a system with four ISA bus slot bus. What is the maximum total +5v (2 Marks)
7. Describe the concept of " Processor side bus (PSB)" in regard to modern processors. (4 Marks)
8. You want to install additional component onto a motherboard, but the computer case does not provide enough room. (i) What can you install to accommodate the extra component? (ii)How else would you upgrade the entire PC and what additional components would you require (10 Marks)

Part 2

9. What the difference between:
   a) FSB and PSB

   b) CPU and FPU   (4 Marks)

10. You purchased a new computer system and are adding an additional 12-GB EIDE hard disk drive. What CMOS configuration changes are you likely to need to make after the installation and why? (5 Marks)

11. Describe how the amount of video RAM is calculated?

   a) What is the significance of a CRT monitor's dot pitch?

   b) Assume that you have recently purchased a new system. What Memory differences would you expect to see compared with an older AT- style system?

                                                                      (6 Marks)

Part 3

12. What is the difference between?

   a) PCI and PIC

   b) SCSI and SATA

   c) VDM and VM

   d) Socket 1 and Socket 2

   e) AMD and INTEL

   f) DB-15 and DB-9   (10 Marks)

13. How would you go about upgrading you BIOS and why?.   (5 Marks)