



# TECHNICAL UNIVERSITY OF MOMBASA

## INSTITUTE OF COMPUTING AND INFORMATICS

### DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

#### UNIVERSITY EXAMINATION FOR:

#### BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

#### BIT 2223: PC HARDWARE & TROUBLESHOOTING

#### END OF SEMESTER EXAMINATION

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: Pick Date May 2016**

#### Instructions to Candidates

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** questions. Attempt question ONE (Compulsory) and any other TWO questions.

**Do not write on the question paper.**

#### Question ONE

- a) Explain the significance of the Last known good configuration in windows start option. (4 Marks)
- b) Explain the following terms
- i. SATA
  - ii. PCI
  - iii. DIMM (6 Marks)
- c) List and explain the THREE main functions of CMOS BIOS program. (6 Marks)
- d) Give the error message and suggest a possible solution if one of the following error conditions were to occur
- i. A Boot failure
  - ii. A dislodged SATA cable to a hard disk drive
  - iii. Incorrect setting for hard disk drive (6 Marks)
- e) Explain the purpose of preventive maintenance. (4 Marks)
- f) Explain the activities undertaken during a preventive maintenance exercise (4 Marks)

## Question TWO

- a) Using diagrams explain any FOUR power connectors found in a power supply unit. (8 Marks)
- b) Using diagrams explain any SIX internal connectors found on a motherboard. (12 Marks)

## Question THREE

- a) Name any SIX system unit components and give the observations one would make if any of the named component were to fail. (12 Marks)
- b) Name FOUR software components that are found in any computer installation providing an example in each case. (8 Marks)

## Question FOUR

- a) List and explain the function of any FOUR utility programs. (8 Marks)
- b) State the minimum system requirements for installing an application program of your choice. (4 Marks)
- c) Explain the steps one needs to take to perform the following tasks
- i. Detect hardware conflict
  - ii. Uninstall a device driver software
  - iii. Determine memory allocation for a given application
  - iv. Disable audio services
- (8 Marks)

## Question FIVE

- a) State the likely cause and suggest a solution of the following CMOS errors
- i. CMOS Display mismatch
  - ii. CMOS Memory size mismatch
  - iii. CMOS Options not set
  - iv. CMOS Checksum failure
  - v. CMOS date and time not set
- (10 Marks)
- b) Explain the purpose of a CPU heat sink/cooler fan assembly. (4 Marks)
- c) Explain the term upgrade with reference to computer hardware. (2 Marks)
- d) Distinguish between Default installation and Custom installation of new software. (4 Marks)