



**THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE**

*Faculty of Engineering & Technology*

**DEPARTMENT OF COMPUTING AND IT**

**DIPLOMA IN INFORMATION AND COMMUNICATION  
TECHNOLOGY (DICT)**

**END OF SEMESTER EXAMINATIONS**

**APRIL/MAY 2010 SERIES**

**ISM**

**TIME: 2 hours**

**INSTRUCTIONS TO CANDIDATES**

Answer **ANY THREE** Questions

### **Question ONE**

- (a). With aid of a diagram, briefly explain the **FOUR** functional components of a computer system. **(12 marks)**
- (b). Define the following:
- (i). Co-processor
  - (ii). Cache memory
  - (iii). Registers
  - (iv). Buses
- (8 Mark)**
- (c). State **THREE** factors to consider when choosing a VDU (Visual Display Unit) for a computer system. **(3 Marks)**

### **Question TWO**

- (a). Differentiate between the following:
- (i). SRAM and DRAM
  - (ii). Drum plotter and flat bed plotter
  - (iii). MICR and OCR
  - (iv). Daisy wheel printer and chain printer
- (16 Marks)**
- (b). Explain the essence of data quality audit. **(4 Marks)**
- (c). State any **THREE** contents of a backup log document should contain. **(3 Marks)**

### **Question THREE**

- (a). Outline the factors that determine the success or failure of the system implementation. **(5 Marks)**
- (b). Describe how a firm can use information systems to create new products and services. Give **ONE** example. **(6 Marks)**
- (c). Explain **SIX** major management challenges in building and using information systems in organization. **(12 Marks)**

### **Question FOUR**

- (a). Briefly explain the following software security model levels.

- (i). User level
  - (ii). Share level
- (b). Explain the following processes with regards to data security:
- (i). Auditing
  - (ii). Data encryption
- (7 Marks)**

**Question FIVE**

- (a). Explain the following power problems:
- (i). Surge
  - (ii). Spike
  - (iii). Sag
- (6 Marks)**
- (b). Differentiate between ON-LINE and OFF-LINE uninterruptable power supply.
- (7 Marks)**
- (c). Explain the factors to consider when selecting a UPS (Uninterruptable Power Supply) to use with the computer.
- (10 Marks)**