

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF THE BUILT ENVIRONMENT**  
**BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE**  
**PART I SUPPLEMENTARY EXAMINATIONS AUGUST 2013**  
**INTRODUCTION TO INFORMATION TECHNOLOGY - AQS1109**

Time: 3 hours

Total Marks: 100

**INSTRUCTIONS**

**This paper carries Six Questions, each question carries 25 marks**

**Answer any Four Questions**

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**Question One**

a) Compare the following terms:

i. Multiprocessing and Multiprogramming

[4 marks]

ii. Time slicing and multi tasking

[4 marks]

b) Trace the pathway followed by a data item from the time it leaves main memory for processing in the central processing unit (CPU), until it returns as part of information back to main memory.

[9 marks]

c) Show how the introduction of an enterprise resource planning (ERP) system into an organization improves productivity within that organization.

[8 marks]

**Question Two**

a) Defend the use of information technology(IT) applications in a Quantity Surveying firm.

[16 marks]

b) Suggest appropriate uses for these types of computers with reference to a university setting:

i. Mainframe computer

[3 marks]

ii. Laptop

[3 marks]

iii. Supercomputer

[3 marks]

**Question Three**

a) What considerations does one make in choosing technology components to set up a computer system?

[10 marks]

b) Outline the five stages of data processing, giving at least two devices that could be used at each of the stages.

[15 marks]

**Question Four**

- a) Briefly describe how employees in a Quantity Surveying firm can utilize a Presentation graphics package for the improvement of their work processes. [5 marks]
- b) Distinguish between the following terms:
- i. Real time processing and online processing [4 marks]
  - ii. Primary key and foreign key [4 marks]
  - iii. Data warehouse and data mart [4 marks]
  - iv. Business intelligence and business information system
  - v. Intranet and Extranet [20 marks]

**Question Five**

- a) Explain using examples the role played by a database management system in a database environment. [10 marks]
- b) Write a spreadsheet formulae to perform the following:
- i) Counts the number of courses a student has passed if pass mark is 50. [2 marks]
  - ii) Displays a classified result as A, B, C, D, E AND O from a given overall mark. [4 marks]
- c) Produce an annotated diagram showing the basic operations of the laser printer. [9 marks]

**Question Six**

- a) Briefly describe how the following data coding systems work
- i. ASCII [5 marks]
  - ii. EBCDIC [5 marks]
- b) In what way has mobile information communications technologies changed the way Quantity Surveyors do business in Zimbabwe? [15 marks]

**END OF EXAMINATION**