

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**FACULTY OF THE BUILT ENVIRONMENT**  
**BACHELOR OF QUANTITY SURVEYING (HONOURS) DEGREE**  
**PART I FIRST SEMESTER EXAMINATIONS JANUARY 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) Suggest appropriate uses for these information technology devices/services in a Quantity Surveying environment as a way of improving the work environment. Explain how they should be set up to fulfill their role;

- |                                |                  |
|--------------------------------|------------------|
| i. Scanner                     | <b>[3 marks]</b> |
| ii. Bluetooth                  | <b>[3 marks]</b> |
| iii. Wireless Fidelity (Wi-Fi) | <b>[3 marks]</b> |
| iv. iPhone                     | <b>[3 marks]</b> |
| v. Database                    | <b>[3 marks]</b> |

b) How can you protect yourself and other computer users from data and identity thefts? **[10 marks]**

**Question Two**

a) Determine how an organization like NUST could use a data warehouse and data marts to improve its business operations. **[15 marks]**

- b) Convert between the following number systems;
- |                                |                  |
|--------------------------------|------------------|
| i. 256 Decimal to Binary       | <b>[2 marks]</b> |
| ii. 0.100010 Binary to Decimal | <b>[2 marks]</b> |
| iii. 2.45 decimal to Binary    | <b>[2 marks]</b> |
| iv. AFF Hexadecimal to Binary  | <b>[2 marks]</b> |
| v. 50 Decimal to Binary        | <b>[2 marks]</b> |

**Question Three**

a) Give a brief history of the generation of computers from the first generation to the fifth generation, explaining why computer history is important to anyone wishing to employ information technology (IT) in their work environment. **[10 marks]**

b) What are the three basic components needed to set up a local area network (LAN)? Explain the role of each component. **[9 marks]**

c) Organizations wishing to carry large amounts of data across nations, need to employ some medium that is robust and supports very high bandwidths. Which transmission medium would be suitable for such purposes and why? **[6 marks]**

**Question Four**

a) Suppose your organization was running a Google search engine and had a word processing

software such as MS Word, show how you would employ these tools to facilitate document processing by various researchers from various sites across the globe. **[5 marks]**

b) Compare disruptive technology with sustainable technology using examples from your field of study. **[20 marks]**

**Question Five**

Discuss any **five (5)** ways in which the INTERNET can be gainfully used to impact the organization positively. **[25 marks]**

**Question Six**

a) With the aid of a fully labelled diagram, show how various forms of computer software interact with the underlying hardware in a computer system. **[10 marks]**

b) Copy the table below and complete it by replacing question marks with the appropriate words/values.

<b>Term</b>	<b>Capacity</b>
i. Kilobyte (KB)	?
ii. ?	1 024 MB (10 <sup>9</sup> bytes)
iii. Terabyte (TB)	?
iv. Pentabyte (PB)	?
v. Exabyte (EB)	?

**[5 marks]**

c) The success of an information technology innovation in an organization is heavily dependent on its users. Discuss. **[10 marks]**

**END OF EXAMINATION**