NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF THE BUILT ENVIRONMENT

DEPARTMENT OF QUANTITY SURVEYING HONOURS DEGREE

PART I FIRST SEMESTER EXAMINATIONS – JANUARY 2011

INTRODUCTION TO INFORMATION TECHNOLOGY - AQS1109

Time: 3 hours   Total Marks: 100

Instructions to candidates

Answer any four questions. All question carry equal marks.

Question One

Using a diagram(s), describe the basic components you would need to set up a computer system for your Quantity Surveying Firm. In your description, explain the role of each of the components in the system.   **(25 marks)**

Question Two

    a) Explain the technology employed by the following types of computer devices:
        i)   CD-ROM
        ii)   Drum Printer
        iii)   Magnetic Ink Character Reader   **(9 marks)**

    b) With the aid of appropriate examples, discuss any four benefits an organization may enjoy from employing a database management system for the handling of its information processing needs.
                                                   (**16 marks**)

Question Three

a) You have purchased Microsoft Office suite of software which has among other packages the following application packages:

i) Microsoft Powerpoint

ii) Microsoft Excel

iii) Microsoft Access

iv) Microsoft Word

Use appropriate examples to show how you would use each of these programs effectively in your organization. **(16 marks)**

b) Draw diagrams to illustrate the following local area network topologies:
   i)   Star
   ii)   Bus
   iii)   Mesh   **(9 marks)**

Question Four

a) Explain any five uses of the Internet in a Quantity Surveying environment.

(15 marks)

b) Define the following terms as used in Information Technology (IT):
   i)   Programming language
   ii)   Information system
   iii) Visual Display Unit (VDU)
   iv)   Main memory
   v)   Operating system   **(10 marks)**

Question Five

a) Describe any two types of computer viruses that you know, and explain measures that can be taken to safeguard an organization's information technology equipment against computer viruses. (**[10 marks)**

b) Using appropriate examples, show where the following types of computers would be used:
   i)   Supercomputer
   ii) Micro computer
   iii) Mini computer **(15marks)**

END OF EXAMINATION

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PART I SUPPLEMENTARY EXAMINATIONS – 2011

<u>INTRODUCTION TO INFORMATION TECHNOLOGY - AQS1109</u>

Time: 3 hours   Total Marks: 100

<u>Instructions to candidates</u>

Answer any four questions. All question carry equal marks.

Question One

a) Give five differences between application software and development software.   **[10 marks]**
b) Explain the factors one considers on choosing hardware for a computerized data processing environment.   **[15 marks]**

Question Two

The following are considered core data processing stages: **Data Input**
                                                            Data Processing
                                                            Information Output
                                                            Information storage
                                                            Information Communication

a) Suggest for each stage any two computer devices that can be used to execute the stage.
                                                                         [5 marks]

b) For the devices suggested in (i) above, use diagrams to explain how each of the devices works.
                                                                         [20 marks]

Question Three
a) Explain how printing is produced in the following printers:
    i)   Laser printer
    ii)   Chain Printer
    iii)   Dot matrix printer   **[15 marks]**

b) Discuss the measures one can put in place to ensure the security of information in one's organization's computers.   **[10 marks]**

Question Four

You have been tasked to come up with a paper to defend the use of a Transaction Processing system (TPS) to support your Quantity Surveying work environment. Put up five reasons you would include in your paper arguing why you think your organization should go ahead and implement the system.

[25 marks]

Question Five

a) Explain the role of main memory in a computer system.   **[5 marks]**

b) Justify the importance of an operating system in a computer.   **[10 marks]**

c) Using appropriate examples, compare and contrast a spreadsheet and a database system.

[10 marks]

END OF EXAMINATION