NATIONAL UNIVERSITY OF SCIENCE AND TECNOLOGY
FACULTY OF BUILT ENVIRONMENT
DEPARTMENT OF QUANTITY SURVEYING HONOURS DDEGREE
<u>**INTRODUCTION TO INFORMATION TECHNOLOGY AQS1109**</u>

PART I FIRST SEMESTER EXAMINATIONS FEBURARY – 2010
Time: 3 hours   **Total Marks: 100**

<u>INSTRUCTIONS:</u>
This paper has six Questions. Answer any Four Questions, each question has 25 marks.

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Question One

a) Briefly describe any five uses of a computer system in a Quantity Surveying firm, for each use give a possible application software package that could be employed.   (15 marks)

b) Explain how a Decision Support System enhances the performance of managers in an organization.   (10 marks)

Question Two
a) Distinguish between system software and application software.
                                                                  (5 marks)

b)   Suggest any two possible Quantity Surveying processing environments where an Expert System can be employed to improve productivity.
                                                                  (10 marks)

c) When an organization needs to accomplish a new task or change a work process, it develops a new system or modifies an existing one. Successful systems development means, delivering a system that meets user requirements and organizational needs – on time and within budget. Explain any five factors that affect systems development success.   (10 marks)

Question Three
a) Convert the decimal number 625 to Binary.   (3 marks)

b) Outline the main characteristics of the 4th generation of computers.
                                                                  (10 marks)

c) Describe the following network topologies stating clearly the appropriate application environment for each.
i) Star
ii) Bus
iii) Ring   (12 marks)

Question Four

(a) Rank the following storage capacities according to size starting with the smallest: **Gigabyte, terabyte, kilobyte,** show the number of bytes in each.
                                                                                 (6 marks)

b) Give one example of a primary memory device.

                                                                                 (1 marks)

c) Discuss any three methods that can be used to secure data or information that is either in transit or resident in information systems. In your discussion include the advantages and disadvantages of each method.   (18 marks)

Question Five
   a) Briefly explain what takes place at each of these stages of information processing, in your explanation include at least two devices that are employed to carry out the stage.
      i)   Data Communication
      ii)   Data Processing
      iii)   Data Output
      iv)   Data Input
      v)   Data storage   (15 marks)

   b)   Describe the characteristics of the following types of computers:
      i)   Minicomputer
      ii)   Mainframe computer
                                                                                 (10 marks)

Question Six
a) The INTERNET can either be a source of information or lead to disorientation in hyperspace and to information overload. Discuss.
                                                                                 (16 marks)
b) Briefly explain the printing technology employed in the following types of printers:
i) Laser printer
ii) Thermal printer
ii) Dot matrix printer
                                                                                 (9 marks)