KABARAK   **UNIVERSITY**

UNIVERSITY EXAMINATIONS
2009/2010 ACADEMIC YEAR
FOR THE DEGREE OF BACHELOR OF COMPUTER SCIENCE

COURSE CODE: **COMP 110**

COURSE TITLE: **INTRODUCTION TO COMPUTER SCIENCE**

STREAM: **Y1S1**

DAY: **THURSDAY**

TIME: **9.00 – 11.00 A.M.**

DATE: **10/12/2009**

INSTRUCTIONS:

Section A is compulsory and has 30 marks.
Attempt any TWO questions from Section B. Each question has 20 marks.

PLEASE TURN OVER

SECTION A

QUESTION 1 (30 MARKS)

a) Explain the process of opening Microsoft power point. (3 marks)

b) As an internet user explain any three advantages of Email. (3 marks)

c) Prove the following expression algebraically. (3 marks)

$$A + \overline{A} B = A I + \overline{A} B$$
$$= A (I + B) + \overline{A} B$$
$$= A + A B - \overline{A} B$$
$$= A + B (A + \overline{A})$$
$$= A + B$$

d) Convert $(37.12)_{16}$ to its equivalent binary do not use the shortcut method.

(3 marks)

e) Briefly explain non-positional number systems. (3 marks)

f) What do you understand by embedded system? (3 marks)

g) Internet is good as well as bad, explain any three disadvantages of internet.

(3 marks)

h) Do the following binary arithmetic $00101010 \div 00000110$. (3 marks)

i) Draw the symbol and Truth Table For the "Nor" Gate. (3 marks)

j) Explain the process used Save your new created Ms Word file. (3 marks)

SECTION B

QUESTION 2 (20 MARKS):

a) Briefly explain what drive controllers do inside any computer system.

(2 marks)

b) Convert the following number systems do not use shortcut method.
   (i). 245 base 10 to base 2. (2 marks)
   (ii). 11011 base 2 to base 8. (2 marks)

c) Explain specialty software giving an example. (2 marks)

d) The Operating system is one of the primary software of any computer system.
   List four functions of an operating system. (2 marks)

e) List any four disadvantages of internet. (2 marks)

f) What is the difference between a user interface and an icon? (2 marks)

g) Explain briefly soft copy and hard copy output devices. (2 marks)

h) Differentiate between a tutorial and documentation. (2 marks)

i) Highlight any four disadvantages of Email. (2 marks)

QUESTION 3 (20 MARKS):

a) Define information technology. (2 marks)

b) What do you understand by the following terms?
    (i). Intranet. (1 mark)
    (ii). Extranet. (1 mark)

c) Using the truth table prove that $A(\overline{A}+B) = A\,B$ (4 marks)

d) As a hardware engineer what is the difference between a component and a peripheral? (2 marks)

e) Briefly explain the process to resize Ms WORD window manually. (2 marks)

f) Internets Ethics are hard to deal with, as a professional briefly explain the term Plagiarism. (2 marks)

g) Convert each of the BCD numbers below to their decimal equivalent.(2 marks)
    i) 001110000111
    ii) 01100111.0100

h) Explain the four major types of instruction given by the control unit.(2 marks)

i) Explain the difference between a workstation and a desktop computer. (2 marks)

QUESTION 4 (20 MARKS):

a) Briefly explain the main memory of any computer system. (2 marks)

b) List any four different views that are allowed within Microsoft PowerPoint. (2 marks)

c) Explain the difference between data and information? (2 marks)

d) What do you understand by the term operating system? (2 marks)

e) Different types of computer exist briefly explain the super computers. (2 marks)

f) Converting $(010111)_2$ to Octal do not use the shortcut method. (2 marks)

g) What is secondary memory? Give examples. (2 marks)

h) Briefly explain the reasons for the disappearing of floppy drives in the market. (2 marks)

i) Explain the following major types of software:
    (i). system software. (2 marks)
    (ii). application software. (2 marks)

QUESTION 5 (20 MARKS):

a) Differentiate between SAVE and SAVE AS in Microsoft word. (2 marks)

b) Briefly explain what is a network? (2 marks)

c) Convert $(110101)_2$ to decimal form. (2 marks)

d) In your own understanding what is computer science. (2 marks)

e) Briefly explain what is meant by Copyrights. (2 marks)

f) As a designer how would you differentiate between a home page and a web page? (2 marks)

g) Identify and explain any four characteristics of a computer.(2 marks)

h) Briefly explain the following terms Bloatware and Shovelware. (2 marks)

i) The difference between analog and digital computer. (2 marks)

j) Convert 42 in base 10 into its BCD equivalent. (2 marks)