

KABARAK



UNIVERSITY

UNIVERSITY EXAMINATIONS

2009/2010 ACADEMIC YEAR

**FOR THE DEGREE OF BACHELOR OF COMMERCE AND
PRE UNIVERISTY SEMESTER ONE**

COURSE CODE: COMP 100/PCOMP011

**COURSE TITLE: INTRODUCTION TO COMPUTER
APPLICATIONS**

STREAM: Y1S1 & PRE – S1

DAY: FRIDAY

TIME: 2:00 – 4:00P.M.

DATE: 19/03/2010

INSTRUCTIONS:

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

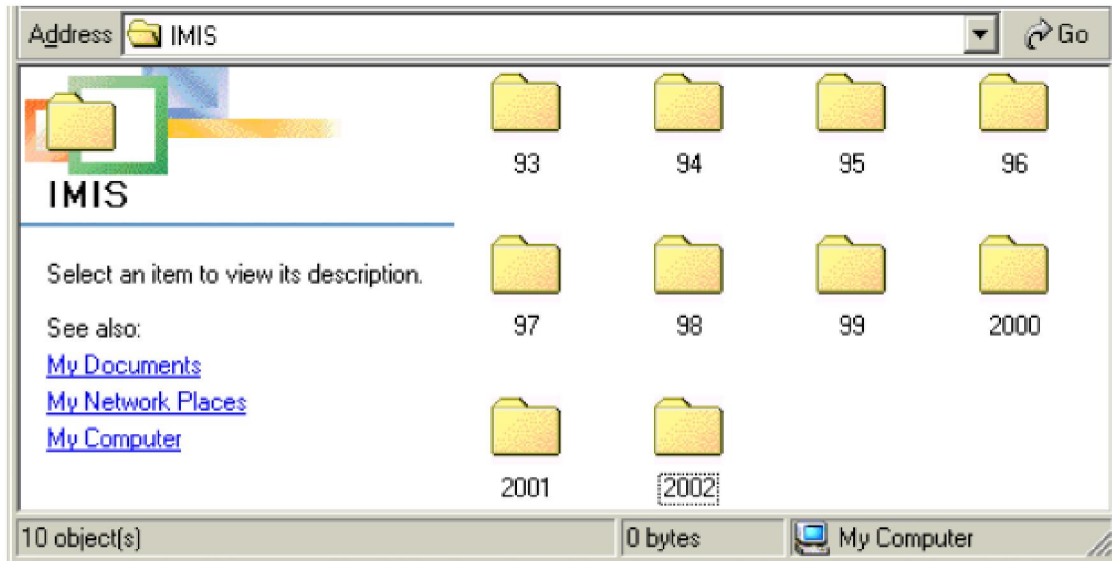
PLEASE TURN OVER

SECTION A

QUESTION 1

- a) When a customer enquires about property to rent, direct access to the property database is needed so that the query can be answered quickly.
Should the database be held on tape or on hard disk? Give a reason for your answer. **(2 marks)**
- b) At the end of each week the database is copied to a CD disk.
- i) Why does the company make copies of its database at regular intervals? **(1 mark)**
 - ii) Suggest a reason for using a CD disk rather than a magnetic floppy? **(2 marks)**
- c) The database file is encrypted and password protected.
- i) Why is the file encrypted? **(1 mark)**
 - ii) Explain the term encrypted **(2 marks)**
 - iii) Explain the term password protected. **(2 marks)**
- d) People can connect to the Internet in a number of different ways; using digital cable or satellite television equipment, some mobile phones, using a phone line and a PC, etc.
- i) What piece of equipment is needed to connect a PC to a phone line so as to allow internet access? **(1 mark)**
 - ii) Is surfing the Internet absolutely free if you own a PC and the other necessary hardware? Give reasons for your answer. **(2 marks)**
 - iii) One of the dangers of using the Internet is that computer viruses may be downloaded.
 - 1) Give one other way that computer viruses spread. **(1 mark)**
 - 2) What is a computer virus? Give an example. **(2 marks)**
 - 3) The virus protection package should be updated regularly. Why do these packages become out of date? **(2 marks)**

- e) A computer was switched on and the operating system and user-interface given time to load. The hard disk icon was clicked and the icon for the IMIS folder was clicked. The screen shown below appeared.



- i) There are ten subdirectories in the IMIS folder. Give one reason for storing files in directories and in subdirectories. **(2 marks)**
- ii) This computer has a GUI. What do the letters GUI stand for? **(1 mark)**
- iii) Why has this type of user-interface become more popular than the older command driven interface? **(2 marks)**
- iv) The students in a computer class were advised to give folders/ directories sensible names that suggest what the folder contains. For example “IMIS Word-processing work”. Give a reason why is it better to use sensible names? **(2 marks)**
- f) Give two differences between a floppy disk and a CD-RW disk. **(2 marks)**
- g) Some recent magazine articles suggest that in the near future new computers will not have a floppy disk drive but will only have a CD/ DVD read/write drive. Do you think this is likely to happen? Give a reason for your answer. **(2 marks)**
- i) What’s the difference between hardcopy and softcopy output. **(1 mark)**

SECTION B

QUESTION 2

- a) Define the term Verification and state how it differs from Validation. **(2 marks)**
- b) The main validation checks are; presence or not blank, field length, character, format or picture, reasonableness, check-digit.
State which of the above checks is the most appropriate to identify the error in each of the following circumstances.
- i) All product codes consist of 3 letters followed by 2 numbers (e.g. LLL99) but a clerk entered AB345 instead of ABE45 **(1 mark)**
 - ii) A customer's name omitted from a customer database record. **(1 mark)**
 - iii) Gender entered as 1 instead of M or F **(1 mark)**
 - iv) Hours worked in a particular week entered as 360 instead of 36 **(1 mark)**
 - v) Reference number entered as 12345 instead of 13245 **(1 mark)**
 - vi) Property type entered as "Residential House Furnished" instead of RHF **(1 mark)**
- c) Explain three characteristics of good information. **(6 marks)**
- d) In an office there is a LAN. This has 20 workstations, a number of shared printers, a network server, etc. A health and safety inspector visits this office to report on anything that adversely affect the health of employees or cause an injury.

Draw up a check-list of at least six ICT related hazards that the inspector should look out for. **(6 marks)**

QUESTION 3

A family bought a computer system. The hardware items supplied included: a 750MHz processor, 250MB of RAM, a sound-card, speakers, a monitor, a keyboard, a 12GB hard disk, a floppy disk drive, a CD-Read-Write drive, a mouse, modem, an inkjet printer, a joystick. The software supplied included an operating system, a basic interpreter, and the following packages; spreadsheet and graphics, word-processor, art, database and games.

- a) From the list of hardware give the names of three manual input devices. **(3 marks)**
- b) Explain the meaning of the following:
- i) 750MHz processor **(1 mark)**
 - ii) 250MB of RAM **(1 marks)**
 - iii) 12GB hard disk **(1 marks)**
- c) One of the family's children uses the computer to do homework.
- i) Which package is used to do calculations and draw graphs? **(1 mark)**
 - ii) Which package is used to write an essay? **(1 mark)**
 - iii) Which package is used to make a poster? **(1 mark)**

- d) The children enjoy playing noisy computer games.
- i) Which two hardware items are needed to produce sounds? **(2 marks)**
 - ii) Which input device is commonly used in playing games? **(1 mark)**
- e) Explain four functions of an operating system. **(8 marks)**

QUESTION 4

- a) What do the following terms mean?
- i) VOIP
 - ii) Analogue signal
 - iii) Intranet
 - iv) Network Topology
- (4 marks)**
- b) With examples, explain the meaning of the following terms:
- i) Simplex
 - ii) Duplex
 - iii) Half duplex
- (3 marks)**
- c) Give four differences between a LAN and WAN. **(4 marks)**
- d) Give and explain four features of a good user-friendly software package. **(4 marks)**
- e) List five benefits of internet. **(5 marks)**

QUESTION 5

- a) Define the following number systems:
- i) Binary **(2 marks)**
 - ii) Decimal **(2 marks)**
 - iii) Octal **(2 marks)**
 - iv) Hexadecimal **(2 marks)**
- b) Covert the values shown below:
- i) 10111011111 binary to octal **(2 marks)**
 - ii) 547652456 octal to hexadecimal **(2 marks)**
- c) Perform the following binary arithmetic:
- i) 111100101 multiply by 1111 **(2 marks)**
 - ii) 1101110011 divide by 101 **(2 marks)**
- d) What negative numbers do the following bits represent:
- i) 11110101001111 (two's compliment) **(2 marks)**
 - ii) 11111111100000 (one's compliment) **(2 marks)**