

EGERTON



UNIVERSITY

UNIVERSITY EXAMINATIONS

NAKURU TOWN CAMPUS
SECOND SEMESTER 2011/2012

**SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF ARTS IN
COMMUNICATION AND MEDIA**

COMP 101: INTRODUCTION TO COMPUTER APPLICATION

STREAM: Y2S2 BA (COMM & MEDIA)

TIME:

DAY:

DATE:

INSTRUCTIONS:

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

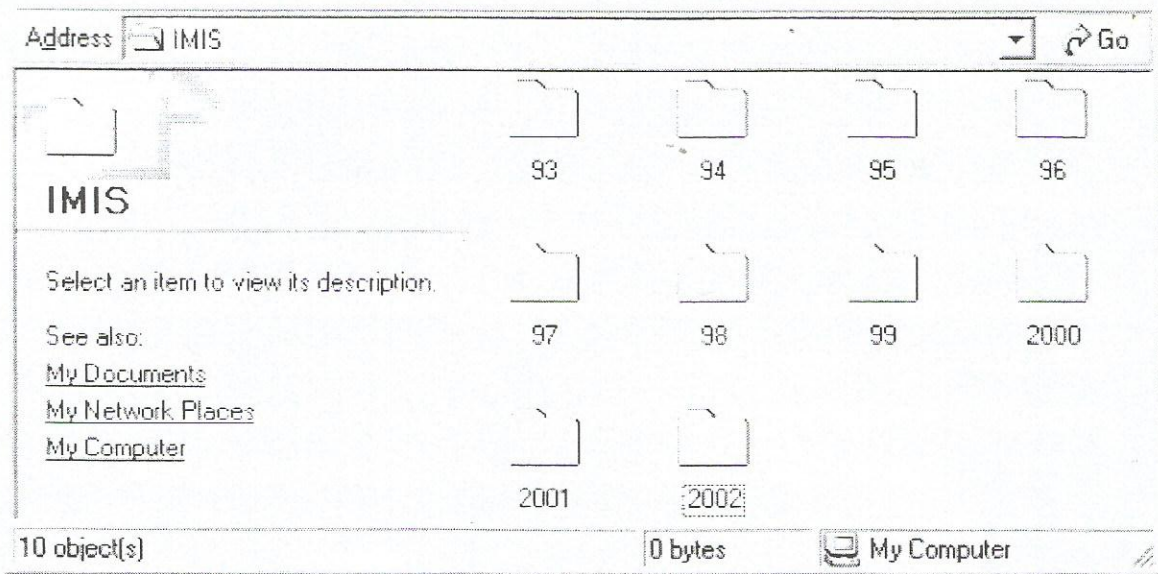
SECTION A

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.
- i) 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.
- i) Why does the company make copies of its database at regular intervals? (1 mark)

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- ii) Suggest a reason for using a CD rather than a magnetic floppy?
(1 marks)
- c) Describe the following systems and provide example to each (2*3 = 6 marks)
- i. Batch Processing
 - ii. Online Processing
 - iii. Time Sharing
- 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. (1 marks)
 - iii) Using suitable diagram explain the major functional parts of a computer systems and provide the different devices that is used in the various parts (6 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. (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) Describe type of information systems. (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

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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. (4marks)
- f) Explain four functions of a utility software (4 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

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- 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) One of the dangers of using the Internet is that computer viruses may be downloaded.
- i. Give one other way that computer viruses spread. (1 mark)
 - ii. What is a computer virus? Give an example. (2 marks)
 - iii. The virus protection package should be updated regularly. Why do these packages become out of date? (2 marks)
- b) What are the key issues to be addressed while implementing computer networking (3 marks)
- c) Covert the values shown below:
- i) 10111011111 binary to octal (2 marks)
 - ii) 547652456 octal to hexadecimal (2 marks)
- d) Perform the following binary arithmetic:
- i) 111100101 multiply by 1111 (2 marks)
 - ii) 1101110011 divide by 101 (2 marks)
- e) Explain the following and provide the situation where they might be used
- (i) Client server architecture
 - (ii) Peer to peer architecture
- (4 marks)
