

KABARAK



UNIVERSITY

UNIVERSITY EXAMINATIONS

2009/2010 ACADEMIC YEAR

**FOR THE DEGREE OF BACHELOR OF COMMERCE, BACHELOR
OF EDUCATION, BACHELOR OF LAW &**

PRE-UNIVERSITY

COURSE CODE: COMP 100/PCOMP011

**COURSE TITLE: INTRODUCTION TO COMPUTER
APPLICATION**

STREAM: Y1S1

DAY: FRIDAY

TIME: 3.00 – 5.00 P.M.

DATE: 06/08/2010

INSTRUCTIONS:

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

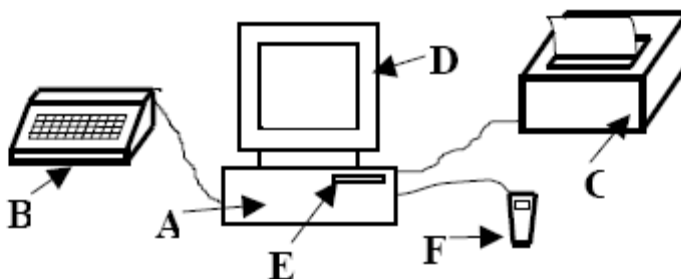
PLEASE TURNOVER

SECTION A

QUESTION 1 (30 MARKS)

a) The diagram and table shown below is copied from a student's notebook.

Letter	Part Name
A	Base Unit
	Monitor
	Mouse
	Printer
	Keyboard
	Disk Drive



Copy the table. The first row has been completed for you. Complete the remaining FIVE rows by entering the appropriate letter. (5 marks)

b) The Internet has become a part of everyday life. When communicating with a bank or sending credit or debit cards details to an e-Shop, an encrypted channel is used.

- i) What is encryption? (1 mark)
- ii) Why is encryption used? (1 mark)

c) Differentiate between the following terms:

- (i) System software and Application software
- (ii) RAM and ROM
- (iii) Hardcopy and Softcopy
- (iv) Hardware and Software
- (v) WIMP and WYSIWYG (5 marks)

d) What is firmware? (1 mark)

e) What is a web browser? Give two examples (2 marks)

f) What is SPAM? (1 mark)

g) What is VOIP and what is its main advantage? (2 marks)

h) Differentiate between multiprogramming and multiprocessing (2 marks)

i) Each window on the data entry screen has a scroll bar. What is a scroll bar used for? (1 mark)

j) Both the floppy disk and the CD-RW may soon disappear. Briefly explain why this is likely to happen. (1 mark)

k) What is an Internet Service Provider? (ISP) (1 marks)

l) Briefly explain what backup means. Give two external storage devices that can be used for backup. (2 marks)

m) What is a search engine? Give one example. (2 marks)

- n) Differentiate between a ring topology and a star topology. (3 marks)

SECTION B

QUESTION 2 (20 MARKS)

- a) Students are advised that for health and safety reasons they should take regular breaks from the computer. State THREE of these health and safety considerations **and** briefly describe them. (6 marks)
- b) An item in a supermarket has a pattern of 'zebra' stripes like the one shown below.



- i) What input device reads it? (1 mark)
- ii) Explain why it is not necessary to change the pattern of stripes on the box if the price of an item (e.g. a 200g box of chocolates) changes (2 marks)
- iii) How should a checkout operator input the code if the input device could not read this pattern? (2 marks)
- c) i) What are the characteristics of a computer virus? (3 marks)
- ii) State THREE ways that computer viruses are spread. (3 marks)
- iii) What should a computer user do to protect the computer from a virus infection? (3 marks)

QUESTION 3 (20 MARKS)

- a) What do you understand by the term electronic commerce? (2 marks)
- b) Differentiate between Intranet and Extranet (2 marks)
- c) An integrated package such as Microsoft Office contains several packages such as a word processor, a spreadsheet and a database. Describe the purpose and different facilities offered by the following packages:
- i) Word Processor (2 marks)
- ii) Spreadsheet (2 marks)
- iii) Database (2 marks)
- iv) PowerPoint (2 marks)
- d) Clearly describe two disadvantages, other than cost, of an integrated package such as that described in part c) of this question. (2 mark)
- e) The Internet has changed the way people carry out many everyday activities. One change is the use of Internet shopping.
- i) State TWO advantages of shopping online for the customer. (2 marks)
- ii) State TWO disadvantages of Internet shopping for the customer. (2 marks)
- iii) When sending credit card/debit card details to make a purchase, customers are usually directed to a secure site. Explain what a secure site is. (2 marks)

QUESTION 4 (20 MARKS)

- a) List FOUR tasks done by an operating system. (4 marks)
- b) The operating system uses a Graphics User Interface (GUI). Explain why an inexperienced user might prefer a GUI to a command interface. (2 marks)
- c) Give FOUR differences between LAN and WAN. (4 marks)
- d) Validation and verification are two different methods of controlling and detecting errors. Describe how EACH of these is done. (2 marks)
- e) Suggest TWO software method of preventing access to the firm's database by unauthorised staff. (2 marks)
- f) State TWO advantages and TWO disadvantages of email compared to ordinary post. (4 marks)
- g) What is a password? Why is it important to have your password changed regularly? (2 marks)

QUESTION 5 (20 MARKS)

- a) Compute the following:
- i) 98965_{10} to X_2
 - ii) $DFB4C.456F$ to X_8
 - iii) $734.2347_8 + D7FB.0AF1_{16} + 1110111.110111_2$
 - iv) 8425.8425_{10} to X_{16}
 - v) 15.7485_{10} to X_{16} (10 marks)
- b)
 - i) Multiply 342.25_8 by 24.341_8
 - ii) Divide 111000110111_2 by 111_2
 - iii) Subtract $BD0F.F2_{16}$ from $FCB0.78_{16}$ (6 marks)
- c) What negative numbers do the following bits represent?
- i) 11100010110.1011 (2C)
 - ii) 11100010110.1011 (1C) (4 marks)