



TECHNICAL UNIVERISTY OF MOMBASA

# Faculty of Engineering & Technology

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

UNIVERSITY EXAMINATION FOR:  
BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY (BSIT 13S)

**BIT 2103: INTRODUCTION TO COMPUTER APPLICATIONS**

END OF SEMESTER EXAMINATION

**SERIES: DECEMBER 2013**

**TIME: 2 HOURS**

**Instructions to Candidates:**

You should have the following for this examination

- *Answer Booklet*

This paper consists of **FIVE** questions.

Attempt question **ONE (COMPULSORY)** and any other **TWO** questions

Maximum marks for each part of a question are as shown

This paper consists of **FOUR** printed pages

---

**Question One (Compulsory)**

- a) (i) In your document you have typed some words in American spelling with “Ize”, which you need to change to British spelling with “Ise”. Explain how will you do it. (2 marks)
- (ii) A small table is there in the centre position of a page of your document with too much empty spaces both sides of it. You wish to put it at right hand side with text flowing on the left side of it. Explain the procedure to perform this. (3 marks)
- b) You have inserted a chart from Excel in your word document but it seems to be too big to fit into the page. How will you solve this problem? (3 marks)
- c) Discuss any **THREE** main hardware components of a computer whose specifications you should know when purchasing a new computer and when installing a new software (6 marks)

- d) Grace has created a database for the club which contains the names, cell phone numbers, age and addresses of all the people who use the club's computers. She used a wizard to create a form to use to input the records.
- (i) Briefly explain what a wizard is by referring to its function **(2 marks)**
  - (ii) Name TWO advantages of using a form to enter records into a database instead of adding them directly to the table. **(2 marks)**
- e) Differentiate between relative and absolute cell addressing. **(4 marks)**
- f) (i) Grace is advised to use a text type instead of a numerical type for some of the fields. Explain why it is a good idea to make the field that stores cell phone numbers a text field. **(2 marks)**
- (ii) State a validation rule that Grace can use to that age of the club members will be greater than 18 years and less than 45 years. **(2 marks)**
- (iii) Differentiate between validation and verification **(4 marks)**

### Question Two

- a) Bit rate and bandwidth tell us about the speed of data communication. What is the relationship between bit rate and bandwidth? **(4 marks)**
- b) An example of a universal Resource Locator (URL) is <http://www.tum.edu>  
What do the terms http and www mean **(4 marks)**
- c) What type of application software is required to access the World Wide Web **(2 marks)**
- d) Using a relevant example, illustrate the benefits of accessing the World Wide Web (www) to the student community in a university? **(4 marks)**
- e) Spreadsheet applications have a wide variety of functions which can be used. Write down the name of the spreadsheet function that you will use for each of the examples below:
- (i) Add up a series of numbers in a range **(2 marks)**
  - (ii) Determine how many cells in a range have a value of 100 or more **(2 marks)**
  - (iii) Find the number of cells in a range that contain numbers **(2 marks)**

### Question Three

- a) Differentiate between a database and a database management system **(4 marks)**
- b) Describe the general organization of a relational database **(4 marks)**
- c) A client has requested the list of users who have accessed a confidential file. State the type of file that would contain the required information **(2 marks)**
- d) A closed-question survey has been developed to obtain feedback from 3000 customers whose details are in a company database. Suggest and justify the most efficient method of conducting the survey. **(4 marks)**
- e) Your school is holding a fund-raising event in the form of a variety concert with guest artists. The school has decided to use FIVE computers to make this task easier. You have been asked to assist

with this project. You have been appointed as the team leader. Your tasks will include the following:

- (i) To give advice on the computer systems need for the project
- (ii) To select suitable computer programs to use
- (iii) To advise on how networks make the task easier (6 marks)

**Question Four**

- a) Give THREE advantages of a computerized database system (3 marks)
- b) The first column in the table below contains the formulae as stored into the cell F10 of a spreadsheet. Enter the formula as they would appear when copied to cell M20 of the same spreadsheet (4 marks)

Formula in F10	Formula in M20
=D10 * E10	
=A & 25	
=D& 4+ E & 3	

- c) A company wishes paper-based user documentation. to update its current documentation to online. Provide advice to the management regarding the benefits tot eh company of online documentation. (4 marks)
- d) A student in a college has a brand new computer, loaded with the latest software at home. At school he cannot open a word processing document that he has saved and brought from home. Suggest any two action that he could take to solve the problem. (4 marks)
- e) A member of your team wants to take some work home but he does not yet have office suit on his home computer. He now has to choose between proprietary office suite such as Microsoft Office and an Open source office suite such as open office. (2 marks)
  - (i) Explain what an office suite is
  - (ii) Compare these TWO types of office suites in terms of cost and support (2 marks)
- f) Explain how you can use windows to organize files and folders (1 mark)

**Question Five**

- a) John has inserted a picture to be included in the concert programme. He is unable to move the picture from the point at which it was inserted.
  - (i) Give the most likely reason for this occurrence and explain how you would solve this problem (2 marks)
  - (ii) You insert a table into a document for the concert and find that this table is too ‘wide’ as it flows over the left and right margins. Recommend two ways in which you could solve this problem without deleting any columns or changing the font size. (2 marks)
  - (iii) Sally is unable to use her fingers to type. Briefly discuss ONE way in which she can input data with limited use of the keyboard. (2 marks)
- b) You are creating a database for artists to perform at concert and have saved the following information about each artist in a database

- Name and surname
- Agent
- Contact Details
- Photograph
- Fee per performance

The governing body requires a printed report containing the information about the artists in an easily readable format, giving the TOTAL AMOUNT of money needed at the bottom of the report.

- (i) Discuss the formula and the most effective way of providing the total **(4 marks)**
  - (ii) Every time you enter the fee in the database the currency displays as Euro (€). Suggest a solution for this problem **(2 marks)**
  - (iii) Give THREE reason why you would use a database and NOT a spreadsheet program to manage this data. **(3 marks)**
- c) An organization wishes to use the Internet for up-to-date information about its clients. You suggest to them to use a search engine.
- (i) What is a search engine **(2 marks)**
  - (ii) Name TWO ways in which the search could be narrowed or limited to produce more relevant results **(2 marks)**
  - (iii) The organization says it finds some surprising information about the clients on a blog. Explain what a blog is. **(1 mark)**