



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

SCHOOL OF BUSINESS AND ECONOMICS

UNIVERSITY EXAMINATIONS: 2013/2014

COURSE CODE: SCS 114

**COURSE TITLE: INTRODUCTION TO SPREADSHEETS AND
DATABASES**

BUSIA LEARNING CENTERS

DATE: AUGUST 2013

TIME: 2 HOURS

INSTRUCTIONS:

- 1. This paper contains FIVE questions**
- 2. Answer Question one(Compulsory) and any other two questions**
- 3. Write all answers in the book let provided**

Question 1 30 Marks

- a) Define the following terms {5 marks}
- i. Byte
 - ii. File
 - iii. Database
 - iv. Field
 - v. Bite
- b) State the qualities of good information (8 Marks)
- c) Outline the functions of a database Management System. (10 Marks)
- d) What are some of the models available in Spreadsheets that makes them helpful to organizations in facilitating decisions? (7 Marks)

Question 2 20marks

- (a) Explain how features of a spreadsheet can be used in order to investigate “what-if” questions. [10 marks]
- (b) Define the terms data integrity and data security. [4 marks]
- (c) Describe how an integrated/centralized medical database system improves the integrity and security of data compared with distributed independent databases. [6 marks]

Question 3 20marks

- (a) Define the term *data redundancy*. [4 marks]
- (b) Describe how a relational database can reduce the problem of data redundancy. (10 Marks)
- (c) The grades in cells D4 to D9 are produced automatically by the spreadsheet. Describe how the spreadsheet has been set up in order to generate these grades. [6marks]

Question 4 20marks

A new console gaming club has just started. The members want to meet regularly and discuss new games, swap games and lend out games from a stock which they purchase with membership fees. Each member has to pay £10 a month but is allowed to borrow any available game for two weeks at a time.

Discuss how using an electronic database could benefit the club. Your answer should also include references to any disadvantages the club may encounter through using an electronic database.

The quality of written communication will be assessed in your answer to this question. (20 marks)

Question 5 20marks

(a) The value in cell B9 was calculated using the SUM function. Identify *two* features of a spreadsheet function. *[4 marks]*

(b) Many companies allow individuals to create their own macros to carry out standard tasks. Explain *one* advantage and *one* disadvantage of the use of macros. *[10 marks]*

(c) The organization has stopped using its old paper-based system and its staff must now use the new online system. State **two** methods that the organization can use to make sure that all the users are ready to make full use of the new system. **[6marks]**