JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE DEGREE OF

BACHELOR OF EDUCATION ARTS WITH IT

BACHELOR OF SCIENCE WITH IT

1ST YEAR 1ST SEMESTER 2016/2017 ACADEMIC YEAR

MAIN CAMPUS

COURSE CODE: SCS 114

COURSE TITLE: INTRODUCTION TO SPREADSHEETS AND DATABASE

EXAM VENUE: **STREAM:**

DATE: **EXAM SESSION:**

TIME: 2.00 HOURS

INSTRUCTIONS:

1. **Answer Question 1 (Compulsory) and ANY other two questions**
2. **Candidates are advised not to write on the question paper**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room**

QUESTION ONE 30 MARKS

a) The diagram below shows the Microsoft Excel screen layout. Name the parts labeled A, B, C, D and E.   (5 Marks)
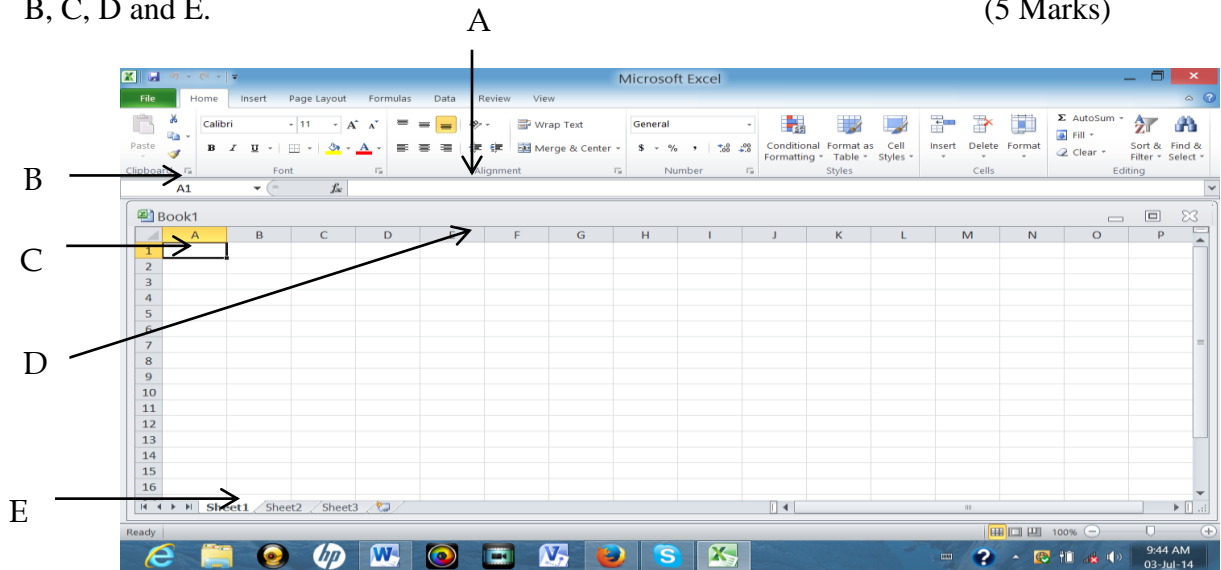
b) Explain **five** functions of database management system software   (5 marks)

c) Briefly explain how data is organized in a database   (5 marks)

c) State and explain three types of Cell References   (7 marks)

d) Give any **four** different field data types found in Microsoft Access and explain each field
                                                                                                                             (8 marks)

QUESTION TWO 20 MARKS

a) Explain the procedures necessary in designing a database   (14 Marks)
b) Describe any three types of fields as used in database   (3 marks)
c) Explain three objectives of normalization in database design   (3 marks)

QUESTION THREE 20 MARKS

a) The Table below shows data in a spreadsheet program. Using a function and cell references only, write a formula to compute the:

|	A	B	C	D	E
1		January	February	March	April
2	Anne Paul	9000	9800	6363	67547
3	Peter Plate	5678	1001	8000	464
4	Moere Jones	432	37748	4000	899830
5	Vinah James	2345	7474	7000	848
6	Hannah Rebecca	23466	339	6457558	7478
7	Jacinta Noah	34566	773	748	4733

i. Number of members whose contribution exceed 5000 in the month of January

(2 Marks)

ii. Highest amount contributed from the month of January to April (2 Marks)

b) Discuss any four database models (4 marks)

c) State and explain the **Four** categories of function giving examples of two in each case (8 marks)

d) Purity had the following errors displayed in different cells when working on a worksheet. Explain the cause of each of the errors and a possible solution.

   i. ###### (2 Marks)

   ii. ♯REF! (2 Marks)

QUESTION FOUR 20 MARKS

a) What are the advantages of storing data on the computer using a database tool such as MS Access as opposed to storing in paper file (5 marks)

b) Describe two methods of creating an MS- Access Database (5marks)

c) Describe how a table can be created

   i) In datasheet view (5 marks)

   ii) in design view (5 marks)

QUESTION FIVE 20 MARKS

a) Distinguish between the key functions of action queries in Microsoft Access (8 marks)

b) Give three importance of using a report (3 marks)

c) Describe 5 ways of customizing a report in design view (5 marks)

d) Use diagrams to describe the following types of relationships (4 marks)

   One -to - One

   One - to – Many
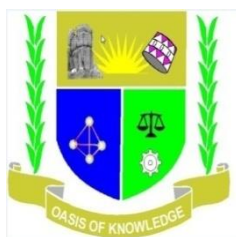
JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

Course Title: INTRODUCTION TO SPREADSHEETS AND DATABASES
Course Code: SCS 114
Hours Taught: 42 Hrs
Course Instructor: Koyugi Julius
        koyugio@yahoo.com
        0721943754

Purpose of the Course	The course focuses on database management tool that enables one to have good command of data collected.
Course objectives	At the end of this course, the student should be able to: - Establish the advantages and disadvantages of various types of Database. - Create and modify fields in database. - Carry out data entry and validation checks. - Import and export tables. - Carryout data handling: (Add, view, edit, sort or filter data in a database) - Create and use view files, SQL and query files; - Create, save and modify query files. - Create, enter and view data through forms: Form within a form. - Create, customize and print reports and mailing labels (mailing lists). - Designing and running of Macros.
	Course Content
course content	1. Database Types: Advantages and disadvantages; 2. Filed types: creating and modifying fields in database. 3. Data entry and validation checks. 4. Importing and exporting tables. 5. Data handling: Add, view, edit, sort or filter data in a database creating and using view files. 6. SQL and query files; creating saving, modifying query files. 7. Forms: Creation and Application.

	8. Data entry and viewing through forms: Form within a form. 9. Creating, customizing and printing of reports and mailing labels (mailing lists). 10. Designing and running of Macros.
Teaching Methodology	The course will be conducted through lectures, exercises and practical work and Assignments
Course Evaluation	Continuous Assessment Tests 30% Final Examinations 70% **Total 100%**
References	Balbin, I., G. Port, G., Ramamohanarao, K. & Meenakshi, K. (2003). Efficient bottom-up computation of queries on stratified databases. Journal of Logic Programming, 11(3):295-344 Lambert, S., Lambert, M.D. & Preppernau, J. (2011). Step by Step in office access. Skill building practice file, One Microsoft Way; Redmond, Washington 98052-6399

Approved by:

HOD: …………………………………………..

Dean: …………………………………………..