



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF INFORMATICS & INNOVATIVE SYSTEMS
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF EDUCATION ARTS WITH
IT
1ST YEAR 2ND SEMESTER 2016/2017 ACADEMIC YEAR
NAMBALE

COURSE CODE: SCS 114

COURSE TITLE: INTRODUCTION TO SPREEDSHEETS & DATABASES

EXAM VENUE: STREAM: (BED & BBA)

DATE: EXAM SESSION: 2.00-4.00PM

TIME: 2.00 HOURS

Instructions:

- 1. Answer Questions ONE and ANY OTHER TWO.**
- 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 1 [30 marks]

- a) i) What is a database ? [2 mark]
ii) Explain the features of a database [4 marks]
- b) How are charts useful in Excel? Compare any three chart types available in Excel. [4 mks]
- c) Define the following terms clearly [5 marks]
- i. Database
 - ii. Primary key
 - iii. Foreign key
 - iv. Field
 - v. Record
- d) A students' database comprises of students' details table and payments table as shown below:

STUYDENT DETAIL TABLE

Surname
Middle_Name
First Name
Reg_No
Department
Date

PAYMENT TABLE

Reg_No
Date
Amount
Receipt_Number

- (i) State the primary key for each table. [2 marks]
(ii) Explain why Reg_No is repeated in the two tables your answer. [3marks]
(iii) State the appropriate data type for each of the field in the two tables [5 marks]
- c) i) Discuss any five advantages of using database objects as opposed to file system [5marks]

Question 2

- a) Differentiate between relative referencing and absolute referencing using relevant examples. [4 marks]
b) Discuss any four functions used in the MS excel application. [4 marks]
c) Consider the following JOOUST grading system (A for 70 and above, B for 60 to 69, C for 50 to 59, D for 40 to 49 and E between 0 and 39). Using a relevant reference column, write a function that JOOUST will use to implement this grading in MS excel. [5 marks]
d) List THREE uses and THREE applications of a database package [3mks]
e) Explain the two classification of database software and give examples [4mks]

QUESTION :3

- a) Define the term “Relationship” and list the steps to be followed when creating a relationship in one or more tables [4mks]
- b) Explain the three types of relationships and give examples for each [6 mks]
- c) A query is a question asked about the database table. Explain the FOUR types of Queries as used in Ms Access. [8mks]
- d) List the steps to be followed when creating a simple query [2 Mks]

QUESTION:4

- a) Define the term spreadsheet [2 marks]
- ii) List any **Four** examples of spreadsheet programs [2 marks]
- b) Explain the following terms as used in Ms-Excel:
- (i) Formula
 - (ii) Function
 - (iii) Cell
 - (iv) Range
- [4 marks]
- c) Why is the use of spreadsheet necessary in Computer applications? [2 marks]
- d) State and explain the steps of creating a chart in Ms-Excel [4 marks]
- e) Using an appropriate example describe how a cell is referenced [2 marks]
- f) Differentiate between a Worksheet and a workbook [4 marks]

QUESTION :5

- a) A Spread sheet is made up of **three** basic elements, state and explain each of the elements [3 marks]
- b) State and describe two types of information that can be entered into a worksheet. [3 marks]

- c) Explain the term chart [2 marks]
- d) List and briefly describe any **four** types of charts [4marks]
- e) Why are charts necessary in Ms-Excel [4 marks]
- f) Describe steps of creating a bar chart [4 marks]