



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

**FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF EDUCATION SCIENCE, ARTS WITH
INFORMATION TECHNOLOGY**

(MAIN CAMPUS- RESIT)

SCS 114: SPREADSHEETS AND DATABASES

Date: 21st July 2014

Time: 2.30 – 4.30 pm

INSTRUCTIONS:

- SECTION A: Attempt question ONE which is compulsory (30 marks)
- SECTION B: Attempt any TWO questions (20 marks each)
- Start a new question on a new page.
- Mobile phones are prohibited in the examination room.

QUESTION ONE (COMPULSORY, 30 MARKS)

- (a) Explain the function of the following in Ms Access 2007 : (6 marks)
- (i) Query
 - (ii) Report
 - (iii) Module
- (b) State three differences between a function and a formula.(3 marks)
- (c) Show how MS Excel would evaluate the following expression(3MARKS)
- (d) State five advantages of using Ms Access to store data over Ms Excel. (5 marks)
- (e) State and explain five different sections of an MS Access report.(5 marks)
- (f) Explain the role of the following Ms Access 2007 field properties.(8 marks)
- i) Caption
 - ii) Input mask
 - iii) Validation rule
 - iv) Validation text

QUESTION TWO (20 MARKS)

- a) Define the following terms as used in database : (4 Marks)
- i. Table
 - ii. Macro
 - iii. Record
 - iv. Field
- b) Name and describe 4 main objects used in database design based on MS Access.(8 Marks)
- c) Sort and Finding are two methods used to quickly locate records. Differentiate between sorting and finding records.(4 Marks)
- d) Define the term Primary key give its function in database design(4 Marks)

QUESTION THREE(20 MARKS)

- a) What is the procedure for writing a function using Insert Function in ms excel
marks

Figure 1.

	A	B	C	D	E	F	G	H	I
1	Olive Fruit Company								
2	Sales Forecast								
3									
4			Actual	Projected					
5	Fruit	Cost	Price	Sales(lbs.)	Sales(lbs.)	Gross sales	Profit	% of Sales	
6	Pawpaw	1.47	1.99	212,000	233,200	\$ 464,068	\$ 121,264	0.055155	
7	Orange	3.49	5.32	159,200	175,100	931,532	320,433	0.146743	
8	Pineapple	1.59	2.19	415,100	456,600	999,964	273,960	0.124605	
9	Pears	1.96	2.59	521,500	573,700	1,465,883	361,431	0.16439	
10	Banana	0.77	1.19	302,200	332,400	395,596	139,608	0.063490	
11	Strawberry	2.21	2.99	306,700	541,500	1,619,085	422,370	0.192107	
12	Water melon	3.03	3.99	142,600	337,400	1,346,226	323,904	0.147322	
13			Total	2,059,500	2,649,900	7,242,304	1,962,970		
14									
15									
16									
17									
18									
19									
20									
21									

- b) Describe how the accounting format and currency symbol was inserted in cell range F6:G6 in figure 1. 5 marks
- c) Highlight how you would apply the Percentage Style to column H values 5 marks
- d) Describe how you would centre the worksheet title 'Olive Fruit Company' and sub title 'Sales Forecast' across column A to column H. 6 marks

QUESTION FOUR(20 MARKS)

- (a) Describe four types of information that you can enter into a worksheet cell when using a spreadsheet package, giving specific examples. (4 marks)
- (b) How would you store as text a value such as a numeric address, date, or part number, to ensure the software does not interpret the text as a number? (5 marks)
- (c) In a certain worksheet, cell B30 shows the total cost of a list of items whose prices are stored in the range of cells B10:25. If the current total is greater than £400.00 then a 15% discount, stored in cell A10, is applied, otherwise the total remains unaltered. Write down the formula that should be entered in cell G42 to carry out this operation. (6 marks)
- (d) Explain why it is better to use only cell references in formulae, rather than including actual numbers. (5 marks)

QUESTION FIVE (20 MARKS)

- The Maseno Catering Co would like to set up a database of its business customers. They would like to record each Company Name, address and telephone number, who to contact, the date and total value of that customer's most recent order. It is your job to design the database structure.
- (a) Make a two column list, with field names in the left hand column, and the corresponding data types in the right column. (8 marks)

- (b) Explain the rationale behind your choice of fields for the company address. (2 marks)
- (c) How might you use a serial field, and what would be its purpose? (2 marks)
- (d) Describe how you would list all your customers in the chronological order of their most recent order. (2 marks)
- (e) How might you usefully incorporate a logical (yes/no) field in your design? (2 marks)
- (f) Define the following terms
 - (i) Database(2 Marks)
 - (ii) Table (2 marks)