



## **MASENO UNIVERSITY**

### **UNIVERSITY EXAMINATIONS 2013/2014**

**FIRST YEAR SECOND SEMESTER EXAMINATIONS FOR THE  
DEGREE OF BACHELOR OF SCIENCE IN INFORMATION  
TECHNOLOGY, BACHELOR OF SCIENCE IN MATHEMATICS &  
COMPUTER SCIENCE & BACHELOR OF SCIENCE IN  
MATHEMATICS & ECONOMICS**

**(MAIN CAMPUS)**

**CIT 112 : INTRODUCTION TO COMPUTER APPLICATIONS**

*Date: 22<sup>nd</sup> July 2014*

*Time: 11.00 - 1.00 pm*

#### **INSTRUCTIONS :**

- Attempt question ONE (COMPULSORY) and any other TWO questions.
- Use of mobile phone is prohibited in the examination room.



**Question 1 (Compulsory, 30 Marks)**

- (a) Define the following spreadsheet tools: (6 marks)
- i) Home keys
  - ii) solver
- (b) Distinguish between a workbook and a worksheet. (2 marks)
- (c) State two ways in which the Currency number format differs from the Accounting format (2 marks)
- (d) State the output of the following functions: (2 marks)
- =ROUNDDOWN(435273.7865,2)
- (e) Explain when to use the following chart types: (2 marks)
- (i) Pie chart
  - (ii) Line chart
- (f) Evaluate the following expression :  $(5 + 2) * 2 ^ (3 - 1) = 28$  (2 marks)
- (g) Explain the role of the function button on MS Word 2007 window. (2 marks)
- (h) Distinguish between page break and section break in MS Word (2 marks)
- (i) State the output of the following formula: (2 marks)
- IF(NOT(AND(40<50,30>20)),"Pass,"Fail")
- (j) State four ways in which you can format a paragraph in MS Word 2007 (4 marks)

Use the worksheet below to answer questions 2 and 3

	A	B	C	D	E	F	G	H	I
1	TAHIDI HIGH SCHOOL								
2	FORM II EXAMINATIONS								
				DATE:					
3	CLASS	STUDENT NAME	MATHS	ENG	C/STUDIES	TOTAL	AVERAGE	GRADE	
4	2A	ALI	67	74	71				
5	2B	MAJINA	58	65	56				
6	2D	KIJANA	45	69	70				
7	2C	SHIBE	45	50	49				
8	2C	TAUSI		56	70				
9	2B	SHAH	55	60	34				
10	2C	JAMAL	40	40	35				
11	SUBJECT AVERAGE								
12	MEDIAN								
13									
14									

Note: Pass mark is 40%

**Question 2 (20 Marks)**

- (a) The results were posted two days after. Write a formula to display the day. (2 marks)
- (b) Write a function to determine the number of students who don't take MATHS in 2B stream. (3 marks)
- (c) Write function to determine the average for stream 2C in English for students with at least 40% in Math. (3 marks)
- (d) Write function to calculate the average for only students who passed in C/Studies from stream 2B. (3 marks)
- (e) Write function to count the number of students who have scored grade C and above in stream 2C. (3 marks)
- (f) State the function that determines the position taken by Shah in the class based on total score. (2 marks)
- (g) A function is used to remark "Pass" or "Fail" if a student Passes in either MATH and ENG or MATH and C/STUDIES. State the function that remarks for MAINA. (4 marks)

**Question 3 (20 Marks)**

- (a) Write function to determine the second worst student in ENG. (2 marks)
- (b) Write function to determine the standard deviation for MATH. (2 marks)
- (c) Explain the output of the following formula: =MEDIAN(D4:D10). (3 marks)
- (d) Students are to be graded, using the Maseno University grading system, based on the average mark.  
**Note:** The function should not grade students who did not sit the exam, and if the mark less than 0 or greater than 100 it should display "Error". State the function for cell H6. (6 marks)

Mark	Grade
70-100	A
60-69	B
50-59	C
40-49	D
0-39	F

- (e) As an IT manager of your company, you advised top management to be using the MS Excel 2007 Solver feature in making key decisions. One day the production manager sort to find out what combination of inputs would yield the optimum profits. However Excel reported that there is no solution available to the given constraints. However it's believed that a solution exists. Identify possible remedies to this situation. (7 marks)

**Question 4 (20 Marks)**

Use the spreadsheet below to answer parts (a) and (b)

The screenshot shows a spreadsheet with the following data:

ID	Product Name	Unit Price	In Stock	On Order	Reorder Level
1	Chai	\$18.00	39	0	10
2	Chang	\$19.00	17	40	25
3	Aniseed Syrup	\$10.00	13	70	25
4	Mishi Kobe Niku	\$97.00	29	0	0
5	Ikura	\$31.00	31	0	0

Additional spreadsheet details: Product ID: 3 is entered in cell B2. A data table is shown in cells C4:C11 with headers: Product, Price, In Stock, On Order, Reorder Level, Value of Inventory, Value on Order, Average Reorder Cost.

(a) Using VLOOKUP function, state the function for cell:

i) C4

ii) C5

(2 Marks)

(b) Use the values obtained to calculate the value for cell

i) C9.

ii) C10

(2 marks)

Use the spreadsheet below to answer parts (c) to (f)

Book1					
	A	B	C	D	E
1	<b>Q4. c)</b>				
2	Principal	Rate p.a	Amount	Payments	
3		500	4%	4500	150
4					
5	<b>Q4. d)</b>				
6	Principal	Years	Rate p.a	Servicing Amount	
7	10000	3	5%	2000	
8					

- (c) Write function to determine monthly contribution for terms stated in Q4 a) in the figure above. (2 marks)
- (d) Write a function to determine the amount owed to a bank after a loan repayment with reference to terms specified as Q4. d) above. (2 marks)
- (e) Briefly describe four proofing tools found in MS Word. (4 marks)
- (f) In a step by step fashion, describe how a mail merge document is created for a letter to multiple recipients. (8 marks)

**Question 5 (20 Marks)**

Use the screenshot below to answer the questions in this section where applicable.

	A	B	C	D	E	F	G	H
1	Dates							
2	Today's date							
3	Yesterday's date							
4								
5	Project Management							
6	Start Date	11/1/2011						
7	Duration	200						
8	End Date							
9								
10	October Working Days							
11	Start Date							
12	End Date							
13								
14	Holiday							
15	Moi Day	10/10/2011						
16	Mashujaa Day	10/20/2011						
17	Mothers Day	10/31/2011						
18								
19	No. of Working Days							
20								
21								

  

Date	Day of the Week
11/1/2011	
11/2/2011	
11/3/2011	
11/4/2011	
11/5/2011	
11/6/2011	
11/7/2011	
11/8/2011	
11/9/2011	
11/10/2011	
11/11/2011	

- Write function to determine the number of working days in the month of October. (3 marks)
- Write function to determine a projects end date given the information above. (2 marks)
- Write function in cell F4 to determine the day of the week e.g. Monday, Tuesday etc. (6 marks)
- Explain three limitations of the Scenario Manager feature as a decision support tool for the top management of an organization. (3 marks)
- Describe the following charts and state what kind of information they are used to convey. (6 marks)
  - Columnar
  - Area
  - Scatter