



# THE MOMBASA POLYTECHNIC UNIVERSITY COLLEGE

(A Constituent College of Jkuat)

*Faculty of Engineering and Technology*

**DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY**

**CERTIFICATE IN INFORMATION TECHNOLOGY – CIT 2K 11M**

**EIT 1124: SPREADSHEETS**

**SPECIAL/SUPPLEMENTARY EXAMINATION**

**SERIES: OCTOBER 2011**

**TIME: 2 HOURS**

## **Instructions to Candidates:**

You should have the following for this examination

- *Answer booklet*

Answer question **ONE (COMPULSORY)** in section A and any other **TWO** questions from section B

Maximum marks for each part of a question are clearly shown.

This paper consists of **SIX** printed pages

## SECTION A – Compulsory

### Question 1 (30 marks)

- a) Briefly explain the difference between **Cell** and **Tab** (2 marks)
- b) Define the following Terms (2 marks)
- Worksheet
  - Absolute referencing
- c) Outline **at least 4** uses of a spreadsheet program (4 marks)
- d) Explain the following function formulas (4 marks)
- = COUNTIF(H4, ">50")
  - = ROUND((AVERAGE(A3:J3)),1)
- e) State any 2 types of charts used in Excel for analysis (1 Mark)
- f) Briefly explain the function of the Standard toolbar (1 mark)
- g) How can one get help about a feature in Excel using keyboard? (1 mark)
- h) State any 2 command tabs in the “**format cells**” dialog box (1 mark)
- i) Distinguish between the terms Copy and Paste (2 marks)
- j) There can arise need to insert a new row in your worksheet to accommodate missing information. Outline the procedure for doing it. (4 marks)
- k) Create the worksheet below and Save it as **MYSALES.XLS**. (2 Marks)

<b>SALES FOR THE YEAR ENDING 2010</b>				
<b>Date Sold</b>	<b>Particulars</b>	<b>Qty</b>	<b>Unit price</b>	<b>Total price</b>
10/10/2010	RAM modules	100	1800	
11/08/2010	Scanners	45	12000	
16/06/2010	VGA cables	70	1500	
5/05/2010	Sahota USB adaptor	56	800	
Average Sales				

- i) Use a formula to calculate the **total** price for each item. (2 Marks)
- ii) Use a formula to compute the Average Sales. (1 Mark)
- iii) Format the cells for the column heading as follows: (3 Marks)
- Font to Bookman Old style and size to 16”
  - Double green colored borders
  - Font Style to Bold and Italics.

## SECTION B (ANSWER ANY TWO QUESTIONS)

### Question 2 (20 marks)

A High cost school in Mombasa wants to start analyzing their marks for every 4 - stream class from form 1 – 4. They are particularly interested in student mean scores, subject means and their rankings so that they motivate both teachers and performing students.

- i) Create a Workbook with 16 worksheets to accommodate every stream if streams are named as X, Y, W, and Z and save it as **ExamsResults.XLS** (4 Marks)
- ii) Use sample student names and registration numbers of your choice with every stream having **at least 5** student records and enter Sample marks for the subjects; ENG,MATHS,PHYS,CHEM,BIO & GEO for every stream (8 Marks)
- iii) Insert columns to include Total, Mean and Position then Calculate the Totals, Mean and Rank for Students as well as Subjects (6 Marks)
- iv) Format Your Worksheet with thin line borders (2 Marks)

**Example:**

	A	B	C	D	E	F	G	H
1	<b>Stud No</b>	<b>Name</b>	<b>ENG</b>	<b>MATHS</b>	<b>PHY</b>	<b>CHEM</b>	<b>BIO</b>	<b>GEO</b>
2	00123	ZAKAYO M	23	23	5.6	6.0		
3	00435	MAISHA J	12	12	4.5	3.8		
4	00067	KIDUM OMAR	15	14	6.5	5.5		
5	00012	SAIDI ALMIN	34	34	9.2	10.0		
6	01023	MWANA HINA	3	3	5.1	4.8		
		<b>TOTAL</b>						
		<b>MEAN</b>						
		<b>POSITION</b>						

### Question 3 (20 marks)

- a) Create the worksheet below showing **project mean scores** for KCSE students of different schools and Save it as **KCSEProject .XLS** (3 Marks)

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>
1	School Code	Name Of School	No of Candidates	No of Projects examined	Prev. Mean	Curr Mean	Dev
2	6200123	KONJERA B.	23	23	5.6	6.0	
3	6200435	SEMULIANGO H	12	12	4.5	3.8	
4	6100987	KAKAMEGA H	15	14	6.5	5.5	
5	6000012	FSK KIMILILI	34	34	9.2	10.0	
6	6200076	LWANDA G	7	6	6.8	8.0	
7	6200098	LORETO ELD	11	8	3.4	5.3	
8	6201043	KANGARI SEC	4	4	3.9	4.0	
9	6100123	EMUGWEN SEC	3	3	5.1	4.8	
		<b>TOTAL</b>					

Key:

Prev = Previous  
 Curr = Current  
 Dev = Deviation

- i) Use a formula to calculate Deviation for all schools given that  
 Deviation = Current Mean – Previous Mean **(2 Marks)**
- ii) Insert two blank rows above row 1 and enter the titles:- **(3 Marks)**  
 “UPPER WESTERN REGION RESULTS”.  
 “COMPUTER PRJOECT ANALYSIS – P3”
- iii) Format the Mean Columns to have values with 1 decimal place **(2 Marks)**
- iv) Align Center columns **A,C,D,E,F and G** **(3 Marks)**
- v) Use a formula to calculate the total number of candidates and Projects **(2 Marks)**
- vi) Put a double border round the whole table and a single line border inside the table. Shade the column for Deviation gray. **(3 Marks)**
- vii) Sort Ascending using the Current Mean **(2 Marks)**

Question 4 (20 marks)

- a) Assuming you have been employed as a store data clerk by a company, create an inventory file to have the products for your store as Items 1 – 5 with borders as below and save it as **Inventory.Xls** (3 Marks)

<b>Your Store Name Here</b> (centered across columns)						
					35%	<b>Markup</b>
<b>Product</b>	<b>Inventory Start</b>	<b>Inventory End</b>	<b>Quantity Sold</b>	<b>Wholesale Cost</b>	<b>Retail Price</b>	<b>Gross Profit</b>
Item 1	529	193		50.00		
Item 2	507	282		47.74		
Item 3	98	2		18.22		
Item 4	953	456		25.30		
Item 5	3591	358		22.22		
<b>Totals</b>						

- b) Complete the Quantity Sold column given that: quantity sold = start inventory - end inventory (3 Marks)
- c) Complete the **Retail Price** column given that: retail price = wholesale cost + (wholesale cost \* markup percentage) (3 Marks)
- d) Compute **Gross Profit** given that : gross profit = (retail price - wholesale cost) \* quantity sold (3 Marks)
- e) Calculate the totals for all values above. (3 Marks)
- f) Insert 2 columns for **Expenses** and **Net Profit** entering appropriate values for expenses. (3 Marks)
- g) Use the expenses to calculate the Net profit given that: Net Profit = Gross Profit – Expenses. (2 Marks)

### Question 5 (20 marks)

The worksheet below is an extract from the Highway traffic accidents report on cases of alcohol related crashes.

	A	B	C	D	E
<b>ALCOHOL RELATED CRASHES</b>					
1	Year	Total	Fatality	Injury	Damage
2	1986		26	516	445
3	1987		35	520	496
4	1988		27	519	557
5	1989		26	497	495
6	1990		31	595	589
7	1991		27	496	428
8	1992		21	439	387
9	1993		29	461	363
10	1994		16	416	341
11	1995		12	412	262
12	1996		17	408	230
13	1997		9	387	237
14	1998		17	457	270
15	1999		12	408	256
16	2000		15	422	214
17	2001		15	270	183
18					
19	<b>TOTAL</b>				

- i) Create the worksheet as it is and save it as **AccidentsTally.xls**. (7 marks)
- ii) Shade the heading “**ALCOHOL RELATED CRASHES**” with **Dark Blue** and font Color **White** (2 marks)
- iii) **Align** the column headings at **30°** acute angle (3 marks)
- iv) Change the font color of the column headings to **Red** (1 mark)
- v) Given that the Total column is calculated by adding **Fatality + Injury + Damage**, type the formula in cell **B2** to calculate total without using a function. (3 mark)
- vii) **Fill down** the calculated cell (**B2**), copying the formula to calculate total up to **B17** (1 mark)

viii) Using the **SUM function**, calculate the totals at cells **C19, D19 and E19**

**(3 marks)**