



**MASENO UNIVERSITY**  
**UNIVERSITY EXAMINATIONS 2013/2014**

FIRST YEAR FIRST SEMESTER EXAMINATIONS FOR THE  
DEGREE OF MASTER OF EDUCATION IN GUIDANCE &  
COUNSELING/EDUCATIONAL PSYCHOLOGY  
(REGULAR/SANDWICH - CITY CAMPUS)

**EDU 804/EMA 858: COMPUTER APPLICATION IN  
RESEARCH**

*Date: 26<sup>th</sup> November, 2013*

*Time: 9.00 - 12.00 noon*

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**INSTRUCTIONS:**

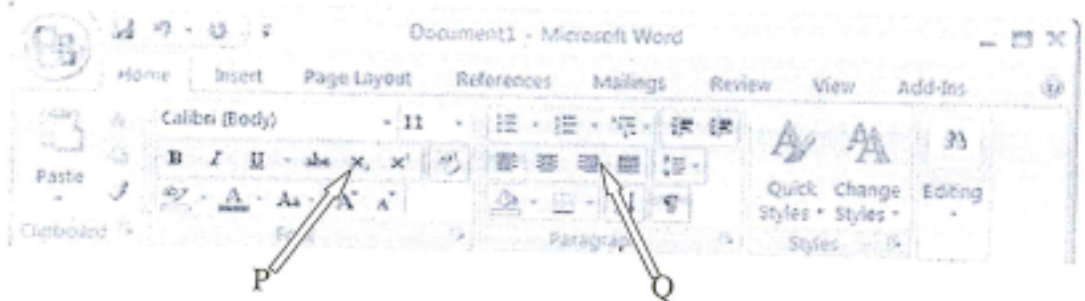
- Answer ALL Questions.

**EDU 804/EMA 858: COMPUTER APPLICATION IN RESEARCH**  
**SECTION 1: WORD PROCESSING WITH MS WORD**

**INSTRUCTION:**

- Answer all questions.

1) The figure below shows the ribbon for MSWord 2007.



- a) Describe the function of each of the command buttons labelled P and Q.  
(2 marks)
- b) Name any two **tabs** on the ribbon. Describe the function of each of the **tabs**.  
(4 marks)
- c) Name any two **groups** on the ribbon. Describe the function of each of the **groups**.  
(4 marks)
- d) Explain how the ribbon can be used to:
- Number a list of names in a graduation booklet.  
(2½ marks)
  - Produce a reference list with hanging indent.  
(2½ marks)

- 4) Key in the data below into the SPSS data editor. There are three variables  $y$ ,  $x$  and  $z$ . There are 12 cases.

| $y$ | $x$ | $z$ |
|-----|-----|-----|
| 22  | 198 | 1   |
| 18  | 199 | 1   |
| 21  | 200 | 1   |
| 26  | 97  | 2   |
| 25  | 110 | 2   |
| 24  | 107 | 2   |
| 25  | 104 | 2   |
| 26  | 121 | 2   |
| 21  | 199 | 1   |
| 10  | 360 | 1   |
| 10  | 307 | 1   |
| 11  | 318 | 1   |

- a) Use SPSS to construct a scatter plot for  $y$  against  $x$ . Interpret the scatter plot.  
(2 marks)
- b) How much variance is shared in common between  $x$  and  $y$ ?  
(2 marks)
- c) Use SPSS to regress  $y$  on  $x$  using ordinary least squares method. Write the linear equation that relates  $y$  with  $x$  in your answer booklet.  
(4 marks)
- d) Interpret the regression coefficient in the equation generated in (c).  
(2 marks)
- e) Use SPSS to conduct an analysis of variance with  $x$  as the dependent variable and  $z$  as the factor. Interpret the results.  
(5 marks)

- 2). Produce and print the following. The main heading above the line is ARIAL font size 14. The remaining text is ARIAL NARROW font size 12.

| <b>MAGOMBE SECONDARY SCHOOL</b><br><b>P. O. BOX 2013</b><br><b>ODINO</b>  |             |                 |
|---|-------------|-----------------|
| <b><u>FEE STRUCTURE FOR 2014</u></b>  |             |                 |
| Magombe Secondary School wishes to inform all esteemed parents and guardians that school fees for 2014 will be charged as follows:  |             |                 |
| S/N   | VOTE        | AMOUNT (KShs.)  |
| 1.  | Tuition     | 20,000/=        |
| 2.  | Activity    | 5,000/=         |
| 3.  | Development | 2,000/=         |
| 4.  | Bus         | 1,000/=         |
| <b>TOTAL</b>  |             | <b>27,000/=</b> |
| Parents/guardians are advised to pay the total amount in full at PQR Bank, Odino Branch, Savings A/C No. 12345678. The bank slip <b>MUST</b> be presented at the Bursar's office and a receipt obtained for the same. |             |                 |
| For further information and assistance, please contact the Principal through Mobile Phone No. 0915 666666.  |             |                 |
| Odino Secondary School is an equal opportunity employer   |             |                 |

(15 marks)

## SECTION II: DATA ANALYSIS WITH SPSS

3) Ten students are randomly assigned to two groups, **A** and **B**. Group **A** is taught history using **Lecture Method** and Group **B** is taught using **Computer Assisted Instruction**, everything else held constant. After two weeks of teaching, the students are given a mathematics test in the content domain they were taught. The following are the individual scores for the students.

| <b>A</b> | <b>B</b> |
|----------|----------|
| 20       | 26       |
| 25       | 35       |
| 30       | 29       |
| 22       | 36       |
| 27       | 32       |

- a) Use SPSS to calculate the mean and standard deviation for each of the two groups. Write your answers in the answer booklet. (4 marks)
- b) Perform a *t*-test to compare the means for the two groups using SPSS. Copy the output in your answer booklet. (6 marks)
- c) Based on the results in (b), make a conclusion of the findings. (5 marks)