The University of Zambia - School of Health Sciences
Department of Biomedical Sciences

BMS 4425 Research Methodology Test 2
Date: 15th February, 2017 Time: 16:00 - 18:00Hrs.

SECTION A: Short Answer Questions. Answer ALL four (4) questions in this section. Each question carries 10 marks and MUST beanswered in a SEPARATE booklet, clearly marked with Student computer number.

1. **Briefly describe statistical scenarios** when you should use the following statistical tests to analyse data
   a. Paired T-test **[2 marks]**
   b. Spearman or Pearson Correlation **[2 marks]**
   c. Repeated measures ANOVA **[2 marks]**
   d. Chi-Square **[2 marks]**
   e. Logistic regression **[2 marks]**

2. **Name** and briefly **describe** the main sections of a scientific paper. Which section of a scientific paper should you normally **start writing and end with? [10 marks]**

3. You are carrying out a quantitative study of fruit and vegetable consumption among older women. Your sample has been recruited from the local area in which you work. A random sampling strategy which has been drawn up on the basis of the local general practitioner's primary care register of patients is used. You have worked hard to recruit women to the study, but the study must come to an end next week, and the participation rate is only half what you had anticipated. You are worried that you will not have enough data to perform the statistical analyses that you had planned. You have discussed the recruitment problem with a senior colleague, and she has advised you to distribute questionnaires to the older women who work in your office. You have approached some of these potential participants to determine if they have any queries, and one of them has told you that your senior colleague had sent out a memo saying that the questionnaires must be completed and returned to you. She said in the memo that if questionnaires would not be returned, she would summon individuals to her office for them to explain to her the reasons why they would not take part.
   a. What are the ethical issues associated with this scenario?
   b. How can these issues be successfully resolved?

   [10 marks]

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University of Zambia
School of Medicine
Department of Biomedical Sciences

Research Methodology (BMS 4415) Assessment Test II

Friday, 19th December, 2014

Section A: Short Answer Questions. Answer ALL the 4 questions. Each ques answered on a SEPARATE answer sheet

1. Name a statistical test or data analysis method (parametric or nonparametric use to evaluate the following:
   a) Two paired groups.
   (2 Marks)
   b) Quantify an association between two variables.
   (2 Marks)
   c) Predict a value of a variable from measured variables.
   (2 Marks)
   d) Compare two independent groups.
   (2 Marks)
   e) Compare three or more unmatched groups.
   (2 Marks)

a) What is the purpose of a "Work Plan"?
(2 Marks)

) Why is it important to set up a budget when planning a research proj
(2 Marks)

) What are the key issues in research justification?
(6 Marks)

es statistical significance always indicate clinical significance, o
ociation always show causation? Explain the two statements, arg
e or false, giving one specific example for each.
(10 marks)

te short notes on the Helsinki Declaration.
marks)

Walusungu Koaba Mwalungu

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2. **Name** and briefly **describe** the main sections of a scientific paper. Which section of a scientific paper should you normally **start writing and end with? [10 marks]**

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The University of [illegible] - School of [illegible]

Department of [illegible]

[illegible] 4025 Research Methodology Test [illegible]

Date: [illegible] February, 2017 Time: [illegible]

<u>SECTION A: Short Answer Questions. Answer ALL [illegible] questions in this section. Each question carries 10 marks and MUST be answered in a SEPARATE [illegible] marked with Student computer number.</u>

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   a. Paired T-test **[2 marks]**
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