



**UNIVERSITY OF  
SWAZILAND**

**FACULTY OF HEALTH SCIENCES**

**BSc ENVIRONMENTAL HEALTH SCIENCES**

**END OF SEMESTER I EXAMINATIONS**

**TITLE OF PAPER:** RESEARCH METHODS

**COURSE CODE:** EHM308

**DURATION:** 2 HOURS

**DATE:** DECEMBER 2015

**INSTRUCTIONS:**

1. READ THE QUESTIONS CAREFULLY.
2. ANSWER ANY FOUR (4) QUESTIONS.
3. EACH QUESTION CARRIES 25 MARKS. WHERE A QUESTION IS SUBDIVIDED INTO PARTS, THE MARK FOR EACH PART IS SHOWN IN BRACKETS.
4. NO PAPER SHOULD BE BROUGHT INTO THE EXAMINATION ROOM.
5. BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

**SPECIAL REQUIREMENTS: NIL**

**DO NOT OPEN THE QUESTION PAPER UNTIL INSTRUCTED TO DO SO BY THE INVIGILATOR.**

### QUESTION 1

Write notes on the following:

- a. Validity. [5]
- b. Prospective cohort. [5]
- c. Confounded relationship. [5]
- d. Extraneous variable. [5]
- e. Independent variable. [5]

[25]

### QUESTION 2

Discuss briefly steps followed in the development of a research proposal under the following headings:

- a. Objectives. [5]
- b. Research design. [10]
- c. Reliability. [5]
- d. Questionnaire coding. [5]

[25]

### QUESTION 3

- a. Discuss probability sampling under the following headings:
  - i. Simple random sampling [5]
  - ii. Systematic random sampling [5]
  - iii. Stratified random sampling [5]
- b. Explain why it would not be reasonable to use the census approach as a research design. [10]

[25]

### QUESTION 4

- a. Give the reasons for using a double blind study design in clinical trials and highlight the advantages and disadvantages. [15]

- b. Compare completely randomized experimental design and randomized block design. [10]

[25]

**QUESTION 5**

- a. Discuss the principles involved in obtaining informed consent. [10]  
b. Explain why the Nuremberg Code was developed and state its contents. [15]

[25]

**THE END**