



1ST SEM. 2014/15

PAGE 1 OF 3

**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

**PROGRAM : BACHELOR OF SCIENCE IN FSNT, COS,
COSE AND TADM, YEAR III**

COURSE CODE : COS 301

TITLE OF PAPER : RESEARCH METHODS

TIME ALLOWED : TWO (2) HOURS

**INSTRUCTIONS : ANSWER QUESTION ONE (1) AND ANY
OTHER TWO (2) QUESTIONS**

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THE CHIEF INVIGILATOR**

QUESTION 1 (COMPULSORY)

- (a) Outline the steps in the research process in their logical order and discuss the first two. (15 Marks)
- (b) A researcher wants to investigate the influence of drying time and temperature on the crispiness, color and flavor of dried banana chips. The researcher decides to use temperature of 110°C and 120°C and a time of 30 min and 35 min. To expedite the process he decided to use three ovens which he suspects could be a possible source of variation. Based on the information given:
- i. Show an experimental layout (design) that suits this research and explain why you chose your layout. (10 Marks)
 - ii. Identify the response variable(s) (5 Marks)
- (c) Describe the *before-and-after with control* design and indicate its advantage over other quasi-experimental designs. (10 Marks)

[TOTAL MARKS = 40]

QUESTION 2

- (a) A researcher wants to study the association between two measured variables.
- i. With justification, suggest a research design for such inquiry.
 - ii. With the help of an example outline techniques to present and analyse the data collected for such study. (15 Marks)
- (b) Write short notes on the following: (5 x 3 = 15 Marks)
- i. Longitudinal research
 - ii. Level
 - iii. Type II error
 - iv. Primary data
 - v. Convenience sampling

[TOTAL MARKS: 30]

QUESTION 3

- (a) Define deception and debriefing and explain their importance. (10 Marks)
- (b) State five (5) attributes of a good research proposal. (10 Marks)
- (c) Under what situation would you opt for an Ex post facto research design? Give an example. (10 Marks)

QUESTION 4

- (a) Define validity and explain two types of validity tests. **(10 Marks)**
- (b) Descriptive researches are conducted to ~~establish~~ a *cause and effect* relationship between variables. With justification, indicate whether you agree or disagree with this statement. **(10 Marks)**
- (c) Describe the characteristics of exploratory and explanatory research designs. **(10 Marks)**

[TOTAL MARKS = 30]