NATIONAL UNIVERSITY OF LESOTHO

FACULTY OF AGRICULTURE

B.Sc. AGRICULTURE

CPS: 316   RESEARCH METHODOLOGY

JULY 2018   **MARKS: 100**   **TIME: 3HRS**

INSTRUCTIONS: ANSWER ALL THE QUESTIONS

QUESTION 1   **[30 marks]**

State clearly the following;

   a) Objectives of conducting the research (7)
   b) Motivation behind the research   (8)
   c) Significance of research   (5)
   d) Properties of quality data   (10)

QUESTION 2   **[20 marks]**

Distinguish the following terms;

   a) research methods and methodology (2)
   b) descriptive and analytical research (2)
   c) applied, basic and adaptive research (3)
   d) quantitative and qualitative research (2)
   e) conceptual, futuristic and empirical research (3)
   f) inductive, deductive and syllogistic reasoning (3)
   g) reliability and validity of data (2)
   h) replication, randomization and control in experimental design (3)

QUESTION 3   **[25 marks]**

Explain the importance of the following in research**;**

   a) literature review (5)
   b) materials and methods (5)
   c) statement of the problem (5)
   d) hypothesis (5)
   e) Discussion (5)

QUESTION 4   **[25 marks]**

Perform analysis of variance with data given below and indicate if there is a significant

difference in replications and treatments.

Cultivars	Yield of maize per ton		
	Rep 1	**Rep 2**	**Rep 3**
PAN 6413	1.5	1.7	1.4
PAN 5681	3.9	4.2	3.8
Phi 324	2.2	2.7	2.9

Page 1 of 1