



1ST SEM 2019/20

PAGE 1 OF 3

UNIVERSITY OF ESWATINI

RE-SIT EXAMINATION

PROGRAMME:

**BACHELOR OF SCIENCE IN HORTICULTURE YEAR
3**

COURSE CODE:

HRT301

TITLE OF PAPER:

RESEARCH METHODS

TIME ALLOWED:

TWO (2) HOURS

INSTRUCTIONS:

ANSWER ANY FOUR (4) QUESTIONS

**DO NOT OPEN UNTIL PERMISSION HAS BEEN GRANTED BY THE
INVIGILATOR**

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

PAGE 2 OF 3

Question 1

- a) Discuss way to control experimental error?

[25]

Question 2

- a) Discuss the Least Significant Difference (LSD) test. [5]
b) Discuss the cultural management mistakes committed when conducting an experiment. [10]
c) Discuss the coefficient of variation (CV). [10]

[25]

Question 3

- a) How can you solve problems of soil heterogeneity when conducting research? [6]
b) Why do you need an experimental design when conducting research? [4]
c) What determines the number of replications? [8]
d) What are the reasons for replicating? [7]

[25]

Question 4

Seed-Co has three (3) new maize varieties that it would like to test for their performance on different fertiliser application rates in a factorial experiment. The varieties are SC727, SC719 and SC701. The fertiliser application rates are 400, 600, 800 kg/ha and control.

- a) Design a treatment layout for this experiment. [12]
b) Draw a skeleton ANOVA table. [13]

[25]

Question 5

Discuss the steps involved when writing a full research proposal.

[25]