



**SUPPLEMENTARY 2018/19**

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**UNIVERSITY OF ESWATINI**

**SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME: BACHELOR OF SCIENCE IN HORTICULTURE YEAR I**

**COURSE CODE: HRT301 AND HORT 305**

**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**

**QUESTION 1**

- a) With the aid of examples describe these terms:
- i. Treatment [2]
  - ii. Variable [2]
  - iii. Experiment unit [2]
  - iv. Replication [2]
  - v. Factorial experiment [2]
- b) Discuss single factor and multiple factor experiments. [15]

[25 marks]

**QUESTION 2**

- c) What are the primary objectives of research? [6]
- d) Discuss ways to reduce experimental error. [5]
- e) With annotated diagram/s discuss randomisation. [14]

[25 marks]

**QUESTION 3**

- a) Name the factors considered before choosing a research/experimental design. [10]
- b) Compare and contrast the CRD and RCBD. [10]
- c) Discuss the Least Significant Difference [LSD] Test. [5]

[25 marks]

**QUESTION 4**

- a) What are the factors to be considered when choosing a good experimental site? [15]
- b) With the aid of diagram/s discuss hypothesis testing. [10]

[25 marks]

**QUESTION 5**

- a) Discuss on-farm and on-station research.

[25 marks]