

116



1st SEMESTER 2017/2018

PAGE 1 OF 3

UNIVERSITY OF SWAZILAND

SUPPLEMENTARY EXAMINATION PAPER

PROGRAMME: BACHELOR OF SCIENCE IN
AGRONOMY YEAR 3

COURSE CODE: CPR 303

TITLE OF PAPER: FIELD EXPERIMENTATION

TIME ALLOWED: TWO (2) HOURS

NOTE: STUDENTS SHOULD BE PROVIDED WITH RANDOM NUMBER
TABLE OF 10

INSTRUCTION: ANSWER ALL QUESTIONS

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117

QUESTION 1

From the information below (A-C), answer the questions that follow:

[I]

- [a] Title of experiment: Response of beans to three sources of manure [cattle, goats and poultry] and four rates of each.
- [b] Emphasis is on the manure rates.
- [c] The trial is replicated four times.

[II]

[a] What experimental design would you use?

(5 Marks)

[b] Why?

(5 Marks)

[c] With the random table provided, draw a field plan for the experiment

(6 Marks)

[d] Write a skeletal ANOVA table for the experiment

(9 Marks)

QUESTION 2

Write on the following [a to e]. Each answer carries five marks

- [a]. Research proposals.
- [b]. Tools for data analysis.
- [c]. Names of research stations under the Ministry of Agriculture
- [d] Names of international research institutes/organizations conducting research in Swaziland.
- [e]. LSD [not Latin square design]

[25 Marks]

QUESTION 3

- [a] What does the word research entail? (5 marks)
- [b] Why is research in agriculture is more localized than, say, research in medicine? (5 marks)
- [c] Why is applied research generally receive more funding than basic research, especially in Third World Countries. (5 marks)
- [d] Why has research in sorghum production not been as rewarding as that of maize production? (10 marks)
[25 Marks]

QUESTION 4

What is the difference between the following pairs of words/terms. Use illustrations/examples where necessary. for your answers. Each question carries five marks.

- [a] Additive and replacement series
- [b] End rows and guard rows
- [c] Focus group discussion and face-to-face interview.
- [d] Split-plot design and randomized complete block design
- [e] Dollop and banding method of applying fertilizers in field experiments.

(25 Marks)