

Eastern University, Sri Lanka

Second Semester Examination in Master of Science in Agriculture 2016/2017 Re Repeat
(November 2018)

MAG 1207 Design and Analysis of Experiments

Index number:.....

hour
all questions

Factorial experiment was conducted in a green house to study the effect of three fertilizers (F_1 , F_2 and F_3) and two varieties (V_1 and V_2) on capsicum yield using Completely Randomized Design (CRD). The ANOVA table for the data is given below.

Source	Df	SS	MS	F value
F	2	174.26	87.13	288.50
V	1	67.97	67.97	225.06
F*V	2	20.66	10.33	34.20
Error	18	5.45	0.302	
Total	23	268.34		

- a. Sketch the layout of the experimental design. (10 Marks)
- b. Give the assumptions of ANOVA. (10 Marks)
- c. Write the statistical model for the ANOVA for the above design. (10 Marks)
- d. Write the appropriate SAS codes to perform above ANOVA. (10 Marks)
- e. Interpret the above output. (10 Marks)

- a. Write the short notes on principles of field design. (25 Marks)
- b. Blocking techniques in agriculture (25 Marks)
