

EASTERN UNIVERSITY, SRI LANKA

FINAL YEAR, FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2004/2005

ACH – 4110 SOIL, PLANT NUTRITION AND FERTILITY MANAGEMENT TECHNIQUES (2:25/10)

Answer all questions

Time: 01 hour

1. a) “ Though a soil may be originally fertile, its fertility may be lost after sometimes”.

Explain the statement.

b) A researcher wanted to assess the fertility status of a soil. Briefly explain the techniques that can be used in assessing the fertility status of that soil.

c) If the fertilizer recommendation of N, P and K per hectare is 90 – 30 – 60, this could be supplied by the followings:

Ammonium Sulphate – 30% N

Super phosphate – 20% P₂O₅

Muriate of potash – 60% K₂O

Suppose the land area is 60m × 40m, the row spacing is 20cm and the rows are oriented towards 60m length and the recommendation is to apply ½ of the nitrogen and all phosphorous and potassium at planting.

i) Find out the amount of each fertilizers needed for the area.

ii) Calculate the amount of nitrogen fertilizer needed per row at planting.

2. a) Briefly explain the importance of Integrated Plant Nutrition Management System (IPNMS) in Agriculture.

b) Explain the limitations encountered in the IPNMS.

c) Write a brief account on Organic farming.
