

FACULTY OF AGRICULTURE, UNIVERSITY OF RUHUNA

Third Examination in BSc Agricultural Resource Management and Technology (Part I)

July 2018

SS 3102 Land Suitability Evaluation (Optional)

Time allocation: 2 hours

Index number

INSTRUCTIONS

Answer all questions.

Only non-programmable calculators are permitted.

Mobile phones are NOT permitted.

Attach the paper to the end of the answer script.

1)

a)

- i) What are the main factors that limit the availability of land around the world? (15 marks)
- ii) Give **three (3)** examples of existing land uses in Sri Lanka, which should be kept untouched. (15 marks)

b)

- i) Write an example for a land use decision taken in Sri Lanka that has caused serious environmental, social or economic harm. (10 marks)
- ii) List the harmful effects of the land use decision you mentioned above. (20 marks)
- iii) Indicate the ideas/actions that could have prevented the harm you mentioned in the answer to the above question. (40 marks)

2)

a)

- i) What are the primary goals of land use planning? (10 marks)
- ii) Land use planning involves professionals from various disciplines. List five categories of professionals that are involved in the land use planning process. (10 marks)
- iii) Land evaluation is a major component in the land use planning process. What are the outcomes of "Land evaluation"? (10 marks)

b)

- i) List the tools available today to facilitate the land use planning process. (15 marks)
- ii) "The experience of the personnel involved in the land use planning process is very important for an effective outcome". Do you agree with the above statement? State the reasons that justify your answer. (25 marks)
- iii) Monitoring and evaluation is an important component of the land use planning process. Explain briefly the importance of it. (30 marks)

3)

a)

- i) Land suitability evaluation is identified as a type of land evaluation. Explain this relationship. (20 marks)

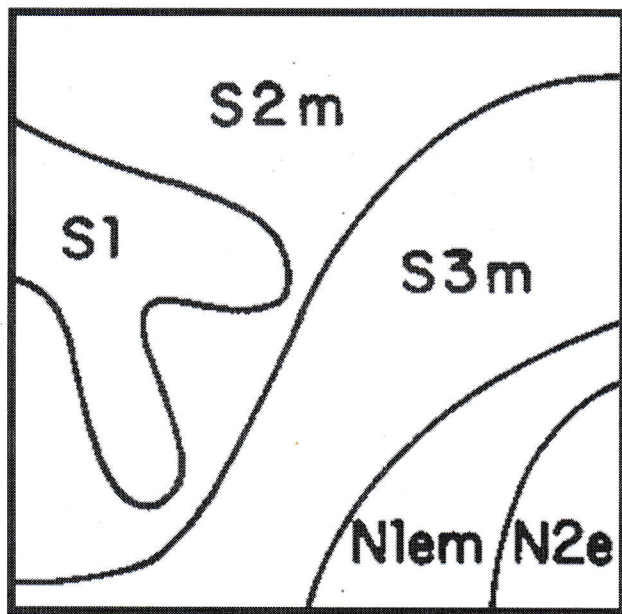
ii) State the advantages of the two-stage approach in contrast to the parallel approach of land suitability evaluation. (15 marks)

b)

i) What is the most suitable land use type for a land with very high scarcity value? (20 marks)

ii) What is the relationship between "Land Utilization Type" and "Land Use Requirement"? (15 marks)

iii) Given below is a land suitability map for pasture. Using the information in the map, explain the suitability of each map unit for the purpose. You may make valid assumptions. (30 marks)



4) Use the attached research paper to answer the questions below. You may answer in your book or indicate your answers clearly in the research paper itself.

a) What is the main land utilization type considered in the evaluation? (10 marks)

b) What is the area where the study was carried out? (10 marks)

c) What are the main criteria/factors considered in the study/evaluation? (15 marks)

d) Indicate the methods used to determine the suitability. (15 marks)

e) What are the means the authors have used to express different land suitability levels to the reader? (10 marks)

f) What are the land suitability classes used in the study? (10 marks)

g) Indicate the land suitability sub class identifiers appearing in the results along with their meaning. (15 marks)

h) What are the soil parameters used in the study? (15 marks)

Albanji, M., Naseri, A. A., Papan, P., Nasab, B.S., 2009. Qualitative Evaluation of Land Suitability for Principal Crops in the Garger Region Khuzestan Province, Southwest Iran. *Bulgarian Journal of Agricultural Science*, 15 (2), 135–145.