

EASTERN UNIVERSITY, SRI LANKA

THIRD YEAR FIRST SEMESTER EXAMINATION IN AGRICULTURE – 2010/2011

AEN 3103- APPLICATION OF GEO-INFORMATICS IN AGRICULTURE

Answer **all** questions

Time allowed: 1 hour

- 1 a. Create a Sri Lanka Map in Arc GIS 9.2 (in Layout view, A4 size) fulfilling the following requirements: (Save the file as Sri Lanka.mxd)
- Include DSD, Roads and Major Towns
 - Assign colours: Green for DSD, Black for Roads, Red for Major Towns
 - Set North Arrow, Scale text, Scale Bar, Title, Neat line and Legend
 - Label the Major Towns
 - Export the file as Sri Lanka.jpg format
- b. Create a Map using the following attributes:
- A map with population graph comparing the population in 1971, 1983 and 2001 in the Batticaloa, Trincomalee and Ampara Districts (Save the file as Population.mxd)
 - Add in one layout as graph and map and export as population.jpg with proper mapping features
 - Create 2 maps comparing the population density in 1983 and 2001(Save the file as population_density.mxd)
 - Export the maps as population_density.jpg in one layout (A3 size) with proper mapping features
2. Find the “Suitable land for paddy cultivation in Anuradhapura and Polonaruwa” by using GIS techniques such as export, merge, clip, buffer and overlay operations. Use the following criteria for the analysis.
- The land should be 1km away from road (dissolve all)
 - The land should be 1km away from town (dissolve all)
 - Create a composite map from 2 buffer layers using Intersect Overlay Analysis (Save the file as Suitable land for paddy.mxd)
 - Export the map as “Suitable land for paddy”. jpg with proper mapping features