



Eastern University, Sri Lanka
First Semester Examination 2009/2010
Faculty of Agriculture

AEN 3103: Application of Geo-Informatics in Agriculture

Answer All questions

Allocated Time: 02.00 hrs

NOTE:

- All the data are stored in directory D:\GIS_data\Exam_2011.
- Create a new folder in your index number (Eg: AS xxx) in the drive "D:\"
- All your work has to be saved in your Index folder.

1. Symbolizing and creating Layout.

- a. Add "DSD" and "Town" shape files in the Table of Contents from the directory D:\GIS_data\Exam_2011\Srilanka
- b. Export the Northern Province from the DSD layer and put the name as "NORTH" to exported new layer.
- c. Select the locations of towns within new data layer "NORTH" and export that selected towns in the name of "NORTH_TOWN".
- d. Remove the "DSD" and "Town" shape files from the TOC.
- e. Change the symbol size in "6" and the color in Red.
- f. Categorize the map in unique value by the value field of DIST.
- g. Create a layout map with important map elements and save JPEG image format in the name of "Q1_MAP". Then exit from the ArcMap programme.

(07x05=35 Marks)

2. Editing attribute tables and Field Calculation.

- a. Copy the data layer "District" from the D:\GIS_data\Exam_2011\Srilanka and Past in your own folder.
- b. Open ArcMap, Add "District" layer to the TOC from your folder. Create new field the name of "POP_INC" Calculate how many population are increased between period of 2001 and 2010.
- c. In the database *Attribute of District* calculate density for 2010 population under the "DENSITY" field.
- d. Create a density map for 2010.
- e. Add label features in "Halo" style for an every district.
- f. Save your map documents in the name of "Ques_02"

(06x05=30 Marks)

3. Creating New features and Digitizing

- a. Open the map document "ex_aen.mxd" from the directory D:\GIS_data\Exam_2011\Srilanka
- b. Create a line feature in the name "EX_ROAD" and digitize all kind of roads from the defined Green box in the displayed image of Colombo, after completed digitizing process enter the type of road under Field of "TYPE" and calculate length in meter under "LENGTH" field for its own database.
- c. Save your map documents in the name of "Ques_03"