**Geography (GEOG) 403/704 Spring 2022**

**Lab Seven**

**GIS with TerrSet/IDRISI**

**20 points**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Goal: The purpose of this exercise is to introduce you to selected GIS module (IDRISI) features. **Use the TerrSet/IDRISI Tutorials for this exercise.** **ALWAYS READ THROUGH THE**

**ENTIRE LAB HANDOUT BEFORE BEGINNING YOUR COMPUTER SESSION.**

**Note:** For this Lab you are not asked to answer *all* of the questions posed in the IDRISI tutorials. It is advisable, however, to consider and understand what is being asked and how you would answer all the questions.

**Requirements:** You will be answering two questions stated under part 1 and two questions stated under part 2 of this lab, and also turning in your memory stick with several files that you will create as you work through the tutorials. Label your memory stick with your name and put the Lab 7 files in an appropriately named folder on the memory stick.

1. Database Query (2-2)– work through this tutorial found on pages 60 to 72.

Question 1. (#3 in tutorial, page 66) Construct a table similar to Figure 3 (page 62) to illustrate the OR operation and then suggest an OVERLAY operation *other than “cover*” that could be used to produce the same result.

Question 2. (#4 in tutorial, page 66) How many hectares within the flood zone are on Clay soils? What is the meaning of the other reported area figure?

**Note:** The image BESTSORG will be a boolean, two color image if the exercise has been completed correctly.

Save the tabular output of step Q) (page 69) as a text file, EXTRACT.TXT.

Turn in the following files along with your answers to questions 1 and 2 (in a WORD document).

# BESTSORG.RST

# BESTSORG.RDC

# EXTRACT.TXT

2. Map Algebra (2-6)–work through this tutorial found on pages 97 to 105.

Question 3. (#1 in tutorial, part 1, page 103) What would a value greater than 1 indicate?

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Question 4. (#1 in tutorial, part 2, page 103) What would a value less than 1 indicate?

Optional problem (page 105): Describe how you made your map, and create the map (from step 1) with the name: PYRETHRUM (2 points extra credit).

Turn in the following files alongwith answers to questions 3 and 4 inserted into the same WORD file used for the earlier questions.

# AGROZONES.RST, AGROZONES.RDC

#  PYRETHRUM.RST, PYRETHRUM.RDC (optional)

3. Image Georegistration using Resample (3-1)–work through this tutorial found on pages 211 to 219.

**Note:** If this part of the lab is completed correctly, your final image, PAXTONUTM will be a parallelogram but not a rectangle.

Turn in the following files:

# PAXTONUTM.RST

# PAXTONUTM.RDC