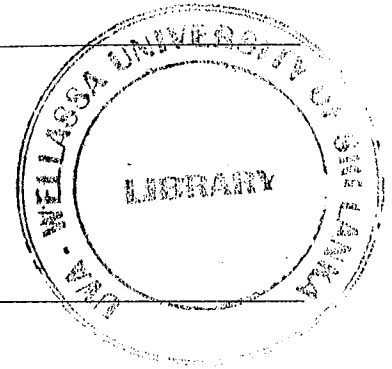


Uva Wellassa University of Sri Lanka
Faculty of Science and Technology
Department of Computer Science and Technology
400 level 1st semester Examination – May/Jul. 2017
CST 472-2 Geographic Information Systems



Instructions to candidates

Duration: Two (02) hours

Number of questions: Four (04) essay questions

Answer all questions

Mark allocation: 100

1. Write short notes on the following.

- a. GPS
- b. DEM data
- c. Objects and fields
- d. Decimal Degree
- e. Meta data

(25 mark)

2.

- a. Compare between Raster and Vector Model for representing geographic features.
- b. Describe the difference between discrete and continuous data.

(25 mark)

3.

- a. Discuss abstraction of geographical entities with relevant examples.
- b. Discuss different primary methods of collecting geographical data.

(25 mark)

4. For each of the following scenarios, choose which GIS data model would be the best one to use. Indicate your choice with R = Raster, V = Vector, and RV = either one

- a. _____ You require accurate measurement of lengths, distances, and areas.
- b. _____ You are making an aesthetically pleasing road map for the Town of Ella that will be distributed by the local Provincial council.
- c. _____ You need to identify all areas below the elevation of 25 m to know what is at risk from hurricane storm surge.
- d. _____ You need to identify wetland polygons that are adjacent to residential or commercial areas.
- e. _____ You are required to create a slope map of the University land

(25 mark)