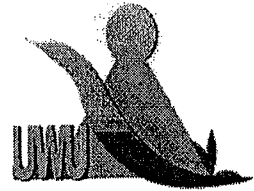


Uva Wellassa University, Sri Lanka
End Semester Examination – February 2011
CST 441-2 Geographic Information Systems



Time: Two (02) hours

Total 05 Questions

Answer four (4) questions

Each question carries 25 marks

1. (i) Distinguish between global (geographic) coordinates and planar coordinates.
(ii) Describe the features of a topographic map.
(iii) Calculate the ground distance between points A and B which are 2.5 cm apart on a topographic map having 1 : 50,000 scale.
(iv) What is the distance between points A and B in above (iii) on a map plotted at the scale of 1 : 10,000?
2. Choosing an appropriate example, explain in detail how you would use Geographic Information Systems (GIS) to find a solution for a problem that requires spatial data handling.
3. Write illustrated notes on the followings.
 - (i) Raster and vector data models
 - (ii) Components of GIS
 - (iii) Purpose of GIS
4. Suppose that you are requested by the local Municipality to select suitable locations to establish a chemical industry in a city periphery using GIS. Describe the spatial data types you need for this analysis and explain how you would perform the task using analyst-specified scores for each parameter.
5. "Index Overlay Method provides more options in suitability assessments done in GIS compared to Boolean Logic Model". With the aid of a simple example, justify this statement.