

Introduction to GIS - CEL455

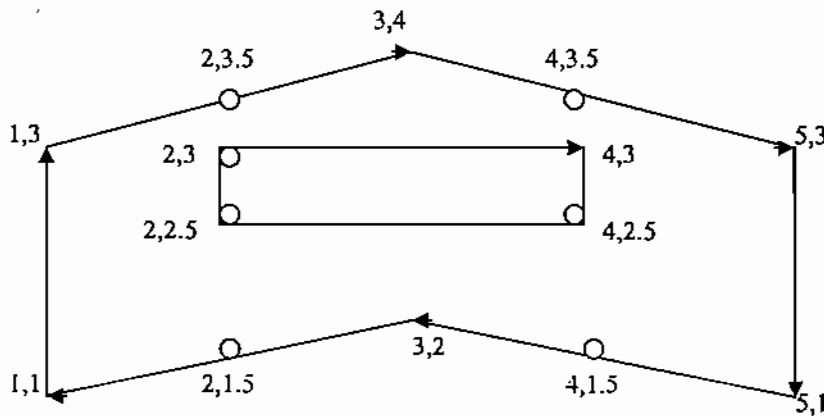
30 November, 2006

Major Test

- Q. 1 a) Out of the work you have pursued in the Lab class during the semester, list the exercises where the interpolation has been used and also state the type of interpolation method deployed?
h) Write short note on Krigging?

(4, 4)

- Q. 2 What do you understand by the topological model? Construct the tables which shall be required for the topology of the following polygon in a conventional GIS given that an island can be incorporated in the polygon table by finishing the coordinates of the island polygon with 0,0



The Arrow depicts the “node” and the small hollow circle depicts the “vertex” in the above polygon.

(8)

- Q. 3 a) What do you understand by DEM. What are the various structures available for generating a DEM.
b) Explain the procedure used for automatic delineation using a grid DEM with appropriate sketches

(3, 5)

- Q. 4 Describe briefly the following

- (a) Digitization errors
- (b) Abstraction of reality
- (c) Overlay analyses
- (d) Kernel function

(2x4)

- Q. 5 Using the grid model, construct steps for the algorithm for computing water spread and volume with respect to the water resources application you have used in the Laboratory class.

(8)