

FINAL EXAM REVIEW – GLY 410 HYDROGEOLOGY

Fall 2006

Time and Place of Exam: Monday, December 11, 4:20 – 6:30, Rm. 339

Supplies Allowed in Room: Cortland Aquifer Report, Tully Lakes handout and class notes, book (all for Part 2); calculator (for Part 1).

Format:

Textbook sections include Chapter 6: Chapter 7: Sections 7.1-7.4. The exam will consist of two Parts: Part 1 (closed book) will consist of a series of shorter answer questions and diagrams on class notes and textbook sections and handouts. Part 2 (open book, notes, resources) will consist of questions about the Cortland and Tully Lakes aquifers. You may use any and all materials from class to answer these questions.

Topics:

- Total Hydraulic Head
- Elevation and Pressure Head Relationships, and diagrams
- The concept of equipotential lines
- Potentiometric surfaces
- Streamlines/flowlines and streamtubes
- Flownets
- Transmissivity
- Recharge and discharge areas
- Large basin aspect ratio (low z/L) and small basin aspect ratio (high z/L)
- Figures 7.4-7.7
- Effects of basin aspect ratio, water table topography, regional slope, and geology on flownet structure.
- The well hydrograph
- Hazen Method for Anisotropy
- Hvorslav Method for determining K
- Water table drawdown
- Cone of depression in confined and unconfined aquifers
- The Cortland Aquifer and its associated USGS report
- The Tully Lakes Aquifer and Presentation by Todd Miller and John Helgren

Should you have any questions about the test or its topics, please email with the question, or call to make an appointment. I will be in and out of my office, so be sure to check my lab as well.

Official times I should be in my office:

Thursday, December 7; 12-2pm

Friday, December 8, 10am to 12:30pm

Monday, December 11, 10:30 to exam time.

It has been a pleasure having you as a class, and I hope you have gained some useful information and insights for your careers as future scientists. I have enjoyed this class immensely! Dr. C.