Lecture 5 Name:

**Short questions (1p each, answer not longer than 30 words + figure)**

1. What are the principal assumptions of limit analysis, method used for derivation of solutions for slope stability?

2. How the Mohr-Coulomb criterion is simplified in limit analysis?

3. When do we use friction angle and when do we use undrained cohesion in slope stability analysis?

4. What are the shortcomings of using undrained cohesion?

5. What is the method of slices? Why do we need to introduce extra assumptions when we solve the problem with the method of slices?

6. What is the tension crack?

**Long question (10p), write between 150 and 200 words.**

2 alternatives (you can of course do both if you are interested):

1) Read the paper of John Krahn – ‘The limits of limit equilibrium analysis’ – paper written by practitioner, from a Geo-Slope company **or**

2) Listen to the Bolton Seed lecture https://www.youtube.com/watch?v=Q\_6aOU7msBM

and discuss the shortcomings of method of slices / limit equilibrium analysis for slope stability.