

UNIVERSITY OF PRETORIA

GLY 251 – CRYSTAL CHEMISTRY AND OPTICS

2. Semester test **THEORY**

Answer all the questions **in 45 minutes** and use sketches where applicable.

Prac questions

1. Search for a uniaxial mineral and determine its optical properties. Sketch the interference figure, clearly labeled. Indicate the vibration direction in this figure and explain in details how the optical character is determined in relation to the indicatrix. (20 points)
2. Use sketches to explain the relationship between uniaxial and biaxial indicatrix in terms of X and Z optic axis. (10 points)
3. Discuss and sketch the different extinction types of minerals in your section. (10 points)
4. Describe the procedures you should follow to evaluate a thin section, from the moment you take off the dust cover until putting the dust cover back on after you are finished. (10 points)