GLY 4200C
14 points
7 students took exam
Numbers to the left of the questions (in red) are the points missed.

Name _____
November 28, 2012
10:30 a.m.

LAB FINAL EXAMINATION KEY

Closed Notes

True-False - Print the letter T or F in the blank to indicate if each of the following statements is true or false. Illegible answers are wrong. (1 point each)

F 1. In inclined extinction, $\tau = 0°$.

F 2. The wider the substage iris is open, the more visible grains with low relief will be.

T 3. Relief, in optical mineralogy, is the difference between the index of refraction of the mineral and the surrounding material, which may be the mounting medium or other mineral grains.

F 4. Interference colors are seen only in plane polarized.

T 5. When examined under crossed nicols isotropic substances remain black as the stage is rotated. This condition is known as "extinction."

T 6. The greater the difference between the indices of refraction for two rays traveling through a crystal but vibrating in perpendicular directions, the more intense are the interference colors produced.

T 7. Carlsbad twinning is common in igneous rocks, but very rare in metamorphic rocks.

F 8. Pericline twinning is Seen only in monoclinic feldspars.

Fill-Ins - Write in the word or words which best completes each statement or answers each question. (1 point per blank)

9. A student measures the following extinction angles: 12°, 25°, 23°, 17°, 16°, and 21°. What value should be reported? 25°

10-12 Describe the proper conditions for observing relief, for each category shown.

10) (CN or PP) PP

11. (Magnification) Low or medium power

12. (Iris) INITIALLY WIDE OPEN, THEN GRADUALLY CLOSE THE SUBSTAGE IRIS DIAPHRAGM

13. A technique for estimating relief in which the stage is lowered very slowly, which will defocus the grain. A thin white line will be observed to move into the grain or out of the grain into the mounting medium. This technique is known as the BECKE LINE method.

14. A mineral shows a white interference color. In order to determine if the white is first order white or high order white, the polarizer is rotated 90° to achieve a PN arrangement. If the color turns reddish, the original interference color was FIRST ORDER WHITE.

When finished, check your answers (did you answer every question?), then exchange this sheet for the open notes portion of the exam.