GLY 4310 Name _____
12 points - 8 took exam April 29, 2010
Number in red to the left of the question is the number of incorrect responses.

Scores to the left of the answer in red are the number of incorrect responses. Instructor comments and answers are in blue.

LAB FINAL - Closed Book KEY

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)

Pro

0 T 1. Higher pressure tends to favor minerals with closed, compact mineral structures.

4 T 2. The establishment of the frequency of impact events through the use of petrologic studies is far more significant than the petrographic study of the rocks

6 F 3. In most slates, the cleavage is parallel to the bedding.

0 T 4. Granulites are found primarily in exposed Archean terrains.

3 T 5. The presence of amphibole in eclogite is a tip-off that the eclogite has been subjected to retrograde metamorphism.

1 F 6. Foliation in marble is always due to plastic flow during metamorphosis.

1 F 7. The albite-epidote amphibolite facies and the albite-epidote hornfels are two names for the same thing.

Multiple-Choice - Choose the best response to each statement or question. Print the letter corresponding to your choice in the blank. (1 point each)

0 D 1. Which of the following effects does stress produce?
A. Development of mechanical fractures
B. Developments of shear planes and fractures provides routes for the movement of chemically active fluids
C. Development of foliation
D. All of the above

0 C 2. A protolith described as a sediment or sedimentary rock composed of the finest detritus, clays or mud-size particles, or a calcareous sediment composed of clays and minute quartz particles would be called:
A. Carbonate
B. Mafic igneous rock
C. Pelite
D. Pssamite

5 D 3. Which of the following minerals is characteristic of amphibolite facies marble?
A. Apatite
B. Scapolite
C. Sphene
D. Any of the above

1 A 4. The hornblende hornfels facies is approximately equivalent to which regional metamorphic facies?
A. Amphibolite
B. Blueschist
C. Granulite
D. Greenschist

5 A 5. Under high-grade metamorphic conditions, dolomite decomposes. Under wet conditions, what mineral is likely to form?
A. Brucite
B. Enstatite
C. Periclase
D. Sphene

GLY 4310 Name _____
28 points April 29, 2010

LAB FINAL - Open Book Key

1-6 Identify each of the following rocks. Name the rock as specifically as possible. Indicate if the rock is foliated. (2 points each)

	Rock #	Rock Name	Foliation
2	1	Actinolite Schist	Yes
4	2	Gray Slate	Yes
0	3	Quartzite	No
7	4	Glaucophane schist	Yes
3.5	5	Augen gneiss	Yes
0	6	Pink marble	No

7-10 Identify the indicated porphyroblasts, including variety if any, in each rock. (1 point each)

0	7.	K-spar
6	8.	Magnetite
5	9.	Andalusite, var. chiastolite
1	10	Epidote

11. Identify each of the following minerals in thin section. 1 point each.

	Letter	Mineral Name
7	A	Talc
2	B	Hornblende
3	C	Quartz
7	D	Staurolite
5	E	Cummingtonite
1.5	F	Andalusite

12-13. Identify the major minerals in the rocks by examining the hand specimen and the thin section, and name the rock. (2 points minerals, 1 point rock name)

		Minerals
6	12 G	Talc
		Chlorite
		Actinolite
3	Rock Name:	Actinolite Schist

3	13 H	Omphacite
		Garnet
1.5	Rock Name:	Eclogite

GRADES

Closed Book _____

Open Book _____

Lab Final _____ %_____ Grade_____

Total Lab (out of 360) _____ %_____ Grade_____

Course grade _____% Grade_____

HAVE A GREAT SUMMER AND ENJOY SFC

Lab Final Exam

38.5	A	
37.0		
36.5 - 3		
36.0	A-	
34.0	B	
32.5	B-	
31.0	C+	**MEAN =31.4 (78.5%)**
29.5	C	**MEDIAN = 29.8**
29.0 - 3		
28.5	C-	
27.5	D+	
26.5	D	
24.5	D-	
23.5	F	

Overall Lab Results

341.0		
340.5		
337.3	A	
333.8		
332.0		
328.5		
327.5		
326.8		
325.3		**MEDIAN = 325.1**
325.0 - 2	A-	**MEAN =325.0 (90.3%)**
322.5		
320.0		
319.3		
317.0		
316.5		
314.8	B+	
297.9	B-	