Quiz 9
GEO 302C
To be given the week of April 10, 2006

1. (75 points) Your name: **Ima Gittingnanae**

2. (5 points) Which of the following three proxy climate records contains evidence of millennial-scale oscillations?
   a. $\delta^{18}O$ records in the North Atlantic sediments
   b. $\delta^{18}O$ records in ice cores from Greenland
   c. $\delta^{18}O$ records in ice cores from the Antarctic
   d. all of the above
   e. none of the above

3. (5 points) Millennial-scale oscillations are most pronounced in which of the following sources of proxy data?
   a. $\delta^{18}O$ records in the North Atlantic sediments
   b. $\delta^{18}O$ records in Greenland ice cores
   c. $\delta^{18}O$ records in Antarctic ice cores
   d. all of the above
   e. none of the above

4. (5 points) The reason that it is difficult to correlate millennial-scale oscillations in records from different regions is because of
   A. millennial-scale oscillations rarely occurred in regions other than Greenland
   B. uncertainties in dating of proxy climate records
   C. infrequent Heinrich events
   D. irregular Dansgaard-Oeschger cycles
   E. massive iceberg influxes to the North Atlantic

5. (5 points) The reason that long-melted ice sheets complicate attempts to measure modern changes in sea level is because
   A. bedrock rises in areas formerly covered by thick ice
   B. bedrock sinks in regions surrounding the former ice sheets
   C. ocean basins sink under the added weight of meltwater
   D. all of the above
   E. none of the above

6. (5 points) Millennial-scale oscillations were _______ during glacial periods, but _______ during interglacial climates (like today).
   a. more pronounced, less pronounced
   b. less pronounced, more pronounced

**Bonus (3 points)**
What is an alternative hypothesis for why millennial-scale oscillations occurred?

[Insert creative hypothesis here.]