

1a. Which radiometric dating method is especially important in determining the age of Holocene samples? [circle one]

- A. ^{14}C
- B. U-Pb
- C. K-Ar
- D. Rb-Sr
- E. Lu-Hf

1b. **Explain** in detail your choice of the radiometric system (above) for this particular time span.

2. The appearance of ape-like primates occurred during the _____, and their abundant diversity in the _____ set the stage for human development.

- A. Pleistocene, Holocene
- B. Pliocene, Holocene
- C. Paleocene, Oligocene
- D. Oligocene, Neogene
- E. Miocene, Pliocene

3. Discuss **how** the origin of the Himalayan Mountains affected the climate of eastern Africa and may have been responsible for giving rise to us humans.

4. Why has a circumpolar current **not** developed in the Arctic (a.k.a. northern latitudes)?

5. Glacial cycles during the Ice Ages of the Pleistocene and Neogene could be the result of [circle one].

- A. Periodic fluctuations in greenhouse warming and changes in ocean currents
- B. The tilt cycle of Earth's axis of rotation and subtle changes in the Earth's orbital parameters
- C. Fluctuations in plate movements of the northern landmasses and increased weathering
- D. All of the above
- E. None of the above

