学籍番号（　　）　氏　名（　　）

問題３．以下の質問に答えよ。

Chapter 22

Q1. Which of these is the chief reason the protocell was probably a fermenter?
(a.) The atmosphere didn't have any oxygen. b. Fermentation provides the most energy.
c. The protocell didn't have any enzymes. d. There was no ATP yet.
e. All of these are correct. (　　)

Q2. Which of these characteristics is not consistent with the others?
a. well-developed brain b. learned behaviors c. opposable thumb (d.) multiple births
e. stereoscopic vision (　　)
多胎出産
立体視

Q3. Which of these gives the correct order of divergence from the main line of descent leading to humans?
a. gibbons, baboons, prosimians, monkeys, African apes, humans
b. monkeys, gibbons, prosimians, African apes, baboons, humans
c. African apes, gibbons, monkeys, baboons, prosimians, humans
(d.) prosimians, monkeys, Asian apes, African apes, humans
e. *H. habilis*, *H erectus*, *H. neanderthalensis*, Cro-Magnon (　　)

Chapter 23

Q4. How do denitrifying bacteria in the anaerobic soil contribute to the nitrogen cycle?
脱窒素 細菌
a. They change nitrogen to ammonium. b. They change ammonium to nitrate.
(c.) They return nitrogen to the atmosphere. d. They withdraw nitrate from the soil.
e. They decompose and return nitrogen to autotrophs. (　　)
回収する

Q5. Why are ecosystems dependent on a continual supply of solar energy?
(a.) Energy transformation results in a loss of usable energy to the environment.
b. Carnivores have a greater biomass than producers.
c. Decomposers process the greatest amount of energy in an ecosystem.
d. Energy cycles within and between ecosystems. (　　)

Chapter 24

Q6. Which of the following is not a function of that ecosystem can perform for humans?
a. purification of water b. reduction of soil erosion c. removal of excess soil nitrogen
(d.) breakdown of heavy metals e. immobilization of pollutant (　　)

Q7. In which of the following is biological magnification most pronounced?
(a.) aquatic food chain b. terrestrial food chain c. detrial food chain d. energy pyramid
(　　)