Lecture and Note-taking Practice 2

Being able to take effective notes during a lecture is an important skill that takes time and practice to get comfortable with. This assignment is an opportunity for you to get some experience listening to part of an authentic lecture on a university campus and taking notes good enough to answer the questions that follow. You will get the added benefit of learning something important from the content of the lecture!

The clip that you will be listening to is from a lecture titled "What is Chemical Biology?" by Dr. Greg Weiss.

Please complete the following steps:

A. Make sure you are familiar with the following vocabulary terminology.

atoms	organic
bonds	inorganic
molecules	evolution

B. Find the lecture online by:

- Putting the following key words into an internet search engine: **ocw uci Chem128 lec 01** Click on "Chem 128. Lec.01. Intro to Chemical Biology".
- Or simply typing in the following web address:

http://ocw.uci.edu/lectures/chem_128_lec_01_intro_to_chemical_biology_introductionwhat_is_chemicalbiology.html

C. Listen to the lecture from **29:09 to 40:40**. Take notes on the Cornell Note-taking template that you've been given.

D. Use your notes to answer the questions on the next page.

1. What are the three parts of the definition of chemical biology? (Choose THREE answers.)
    a. It uses techniques in chemistry to learn things about biology.
    b. It uses techniques in chemistry and biology to look at only the molecular level.
    c. It uses techniques in biology to solve problems in chemistry.
    d. It studies molecules at the atoms and bonds level.

2. True or False. Biochemistry looks at the only the molecule level, while chemical biology looks closer at the atoms and bonds level.

3. Joseph Priestly isolated gases and then tested to see which gases mice could survive in. What was this anecdote an example of?
    a. How respiration was first studied
    b. How animals have been used in science
    c. How chemisty and biology are moved forward in chemical biology
    d. How electrolysis works

4. Why did Dr. Weiss tell the story that Joseph Priestly, the first chemical biology, has his house burned down by an angry mob?
    a. It is a traditional story in the history of chemical biology.
    b. It is an example that chemical biologists tend not be not concerned if people disagree with them.
    c. It shows that chemical biologists do not want to upset the masses.
    d. There are many risks involved in being a chemical biologist.

5. In what order were the three chemical biologists presented in the lecture?
    a. Davy, Woehler, Priestly
    b. Priestly, Woehler, Davy
    c. Woehler, Davey, Priestly
    d. Priestly, Davy, Woehler

6. What was most significant about Friedrich Woehler?
    a. He was young, in his 20's, he had already made discoveries that greatly impacted how we think about the world.
    b. He mixed ammonium cyanate with silver chloride.
    c. He used smell and taste to gather his data.
    d. He learned that chemicals from living organisms can be made from non-living sources.

7. Ribosomes was an example that was given in the lecture. What idea does this example support?
    a. Evolution helps chemical biologists organize knowledge.
    b. Ribosomes are machines that translate mRNA into proteins.
    c. You can study ribosomes in bacteria to learn about how they work in human beings.
    d. Friedrich Woehler discovered how they function.

8. Which of the following cues from the lecture signals important information? Choose **TWO**.
    a. "It is important that you understand this . . . " (29:03)
    b. "The definition is . . . " (29:27)
    c. "I want to give you a couple of historical examples . . ." (31:03)
    d. "now here is the significance of this discovery . . ." (35:49)
    e. "So, there's not . . . instead . . . " (36:13)

9. Professor Weiss is passionate about this subject. We know this because of particular words and phrases he used in his lecture. Which of the following words and phrases do not indicate that he is excited about this topic?

    a. "we've had a proud tradition ever since" (33:05)
    b. "five years from now you could be doing stuff that would change how we think about the universe. That's the way science works. That's one of the great things about science." (33:55-34:10)
    c. His intonation when he says "He knew immediately what it was, what he smelled was urea" (35:17)
    d. "This provides the powerful approach to . . ." (40:17)
    e. "But equally importantly, this helps us to organize knowledge" (40:23)

10. What will the Dr. Weiss probably not agree with?

    a. Because all living things have evolved, we can study biological processes in non-human organisms to learn how they work in human beings. (39.22-40:36)
    b. He thinks it is positive that chemical biologists have a reputation for going forward with research even though the general public may get upset. (32:59-33:05)
    c. It takes a long time and lots of experience for someone to discover significant in science. (34:00-34:22)
    d. He has a lot of respect for the scientists that we spoke about in the lecture.