

BIO1140

Quiz 1: Available online January 17, due to be completed by 10 pm January 22

1. To observe cellular structures in the nanometer range of size, the best microscope to do so would be;

a) Any microscope will do

b) It is impossible to observe structures of that size

c) Light microscope

d) Electron microscope

e) Fluorescence microscope

2. Which of these statements best describes a hypothesis?

a) A hypothesis is the reason we find something happens

b) A hypothesis is our explanation for how things happens

c) A hypothesis discusses what the possible outcomes of a situation are

d) A hypothesis states the relationship between two variables and how they may be responsible for something to happen

3. True or False – Isotopes are irrelevant in biology.

a) True – only chemists are concerned with isotopes

b) True – there are no biological elements with isotopes

c) False – most biologically relevant elements have isotopes

d) False – only carbon has isotopes

4. When forming a chemical bond between atoms by sharing valence electrons, we achieve:

- a) Van der Waals forces
- b) Hydrogen bonding
- c) Covalent bonds
- d) Ionic bonds

5. The strongest type of chemical bond is the:

- a) Van der Waals force
- b) Hydrogen bond
- c) Covalent bond
- d) Ionic bond

6. Which of these polymers is not a polysaccharide?

- a) Chitin
- b) Ergosterol
- c) Amylose
- d) Glycogen

7. In what order did life progress on Earth?

- a) Small inorganic molecules; protocells; prokaryotes; eukaryotes
- b) Small protocells; archaea; multicellular prokaryotes; eukaryotes
- c) Protocells; small inorganic molecules; eukaryotes; prokaryotes
- d) Mitochondria; plastids; bacteria; animals