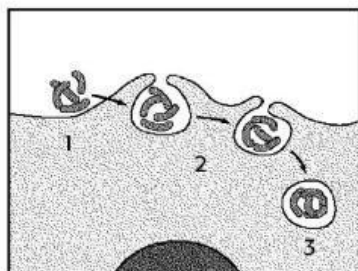


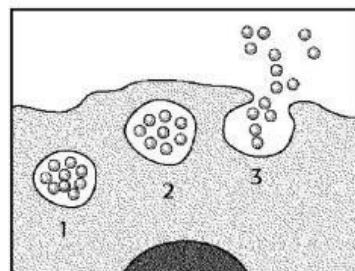
Completion

Complete each statement.

1. Because carbon atoms have four electrons in their outermost energy level, they can form up to _____ covalent bonds with other atoms.
2. In a condensation reaction, two molecules become linked together and a molecule of _____ is produced.
3. In a triple bond, _____ pair(s) of electrons is (are) shared between two atoms.
4. The ratio of surface area to _____ puts limitations on a cell's size.
5. Eukaryotic cells are much larger and have more specialized functions than prokaryotic cells because they contain _____, which carry out specialized activities.
6. A cell with a well-defined nucleus and cytoplasm surrounded by a plasma membrane is a(n) _____ cell.
7. _____ molecules have "heads" and "tails" and are found in the plasma membrane.
8. The network of protein fibers that supports the shape of the cell is called the _____.
9. Both plant and animal cells have plasma membranes. In addition, plant cells are surrounded by a(n) _____.
10. Matthias Schleiden worked with _____ cells, and Theodor Schwann worked with _____ cells.
11. Stacks of thylakoids, called _____, are suspended in the stroma of chloroplasts.
12. Organisms that harvest energy from either sunlight or chemicals in order to make food molecules are called _____.
13. The main pigment associated with the two photosystems is _____.



X



Y

14. Refer to the illustration above. The process shown in figure Y is called _____.
15. Refer to the illustration above. Cells often trap extracellular particles and fluid. This is shown in figure _____.

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16. Chemiosmosis in the thylakoid membrane results in the synthesis of_____.
 17. The second stage of photosynthesis, in which glucose is manufactured, is called the_____.
 18. _____ is a biochemical pathway of cellular respiration that is anaerobic.
 19. Of the maximum possible yield of 38 ATP molecules produced by the complete oxidation of one glucose molecule, _____ molecules of ATP are produced during glycolysis.
 20. The Krebs cycle takes place in the _____.
 21. The scientist who first named cells was _____.
 22. Large, complex cells that contain a nucleus are called _____.
 23. Substances that move wastes and other materials through the plasma membrane are called_____.
 24. The bacterium E. coli is a type of cell called _____.
 25. The central structure that defines the cell is called the _____.
 26. A flu virus could easily infect a cell without the presence of _____.

