Name:_____ ID#_____

29. Which type of lipid is most important in the structure of biological membranes?
a. galactolipid
b. triacylglycerol
c. phospholipid
d. cholesterol

30. Physiological saline is 0.9 percent NaCl; red blood cells placed in such a solution will not gain or lose water; therefore, one could state that the fluid in red blood cells is _____.
a. hypertonic
b. hypotonic
c. isotonic
d. osmotic

31. Membrane sterols such as cholesterol function in animal cell membranes to
a. increase the rate of diffusion.
b. store cellular energy.
c. facilitate ion transport.
d. maintain membrane fluidity.

32. The selective permeability of a membrane refers to
a. the movement of a molecule from an area of greater concentration to an area of lesser concentration.
b. the ability of a substance to pass through a membrane.
c. the ability of only certain molecules to pass across a membrane.
d. the need for carrier proteins to transport some molecules.

33. The concentration gradient that drives diffusion is a form of
a. heat.
b. potential energy.
c. kinetic energy.
d. active transport.

34. Which of these conditions are always true of populations evolving due to natural selection?
***Condition 1*: The population must vary in traits that are heritable.**
***Condition 2*: Some heritable traits must increase reproductive success**
***Condition 3*: Individuals pass on all traits they acquire during their lifetime.**
a. Condition 1 only
b. Condition 2 only
c. Conditions 1 and 2
d. Conditions 2 and 3
e. Conditions 1, 2, and 3

35. The term phospholipid can best be described by which of the following?
a. a nonpolar lipid molecule that is made polar by the addition of a phosphate
b. a nonpolar lipid molecule that is made amphipathic by the addition of a phosphate
c. a polar lipid molecule that fully interacts with water
d. a polar lipid molecule that fully repels water