

27. Which of the following answers is not true?

- a. Phospholipase A1 hydrolyzes the fatty acid from the 1-position on the glycerol backbone
- b. Phospholipase B1 hydrolyzes the fatty acid from the 2-position on the glycerol backbone
- c. Phospholipase C hydrolyzes the complete phospho-head group from the glycerol backbone
- d. Phospholipase D hydrolyzes just the head group from the phospho-glycerol backbone

28. The inner (plasma) membrane of *E. coli* is about 25% lipid and 75% protein by weight. How many molecules of membrane lipid are there for each molecule of protein? (Assume that the average protein is Mr 80,000 and the average lipid is 750.)

- a. 3
- b. 35
- c. 220
- d. 10, 000
- e. 50, 000

29. A hydropathy plot is used to:

- a. determine the water-solubility of a protein.
- b. deduce the quaternary structure of a membrane protein.
- c. determine the water content of a native protein.
- d. extrapolate for the true molecular weight of a membrane protein.
- e. predict whether a given protein sequence contains membrane spanning segments.

30. The fluidity of a lipid bilayer will be increased by:

- a. decreasing the number of unsaturated fatty acids
- b. decreasing the temperature
- c. increasing the length of the alkyl chains
- d. increasing the temperature
- e. substituting 18:0 (stearic acid) in place of 18:2 (linoleic acid)

31. Peripheral membranes proteins:

- a. are generally noncovalently bound to membrane lipids
- b. are usually denatured when released from membranes
- c. can be released from membranes only by treatment with detergent(s)
- d. may have functional units on both sides of the membrane
- e. penetrate deeply into the lipid bilayer