KEY KEY Quiz 1B for Monday 12-1

Your Name _____ KEY KEY _____ Section # ___105-110___

1. Proteins with a quaternary structure
A. contain more than one polypeptide chain
B. are only found in the lysosome
C. are made only on free ribsomes
D. always contain a prosthetic group
E. always contain bound metal ions

2. Which of the following is the strongest bond involved in the tertiary structure of a soluble protein?
A. hydrophobic interaction
B. ionic bond
C. disulfide bond
D. hydrogen bond
E. all of the above are approximately equal

3. Phospholipids always contain
A. a phosphate group esterified to glycerol
B. a serine residue
C. three fatty acids
D. a choline residue
E. a cholesterol group

4. Amylose, amylopectin and cellulose _____.
A. all contain fructose
B. are all polymers of glucose
C. are all found in animal cells
D. are all structural polymers
E. all contain beta-glucose

5. RNA and DNA differ because
A. only DNA is found in the nucleus
B. only RNA contains ribose
C. only DNA is found in mitochondria
D. only RNA contains purines
E. only DNA contains pyrimidines

6. Which of the following would be a reliable marker for smooth ER during cell fractionation?
A. chlorophyll
B. RNA-synthesizing enzyme
C. DNA-synthesizing enyzme
D. lipid-synthesizing enzyme
E. none of the above would be a reliable marker

7. Protein synthesis in a prokaryote occurs
A. on the rough ER membrane
B. in mitochondria
C. in the cytosol
D. in the nucleus
E. none of the above are correct

Your Name _____ **Section #** _____

8. Free and bound <u>ribosomes</u>
A. have identical chemical compositions
B. are only found in prokaryotic cells
C. are both exported from mitochondria
D. differ because only free ribosomes are secreted from the cell
E. are both found in the nucleus

9. The Golgi complex
A. is involved in the covalent modification of proteins
B. receives proteins transported from the smooth ER
C. denatures proteins
D. only A and B are correct
E. A, B and C are all correct

10. Facilitated diffusion
A. moves a component along its concentration gradient
B. is protein-mediated
C. requires an energy source
D. only A and B are correct
E. A, B and C are all correct

11. Integral proteins _____
A. are found in the rough ER
B. interact with the hydrophobic core of the membrane
C. require a detergent for solubilization
D. only A and B
E. A, B and C

12. (3 points) What is a "signal sequence" and what is the function of this sequence in cells?

i) Signal sequence is a stretch of amino acids (N terminus) ii) The signal sequence then is used for targeting of the protein to the correct destination (part of the endomembrane system). There are two main components to the answer.

KEY KEY Quiz 1B for Monday 12-1 Section # ___105-110___

1A	2C	3A	4B	5B	6D
7C	8A	9A	10D	11E	

B- mon 12-1

Signal sequence

# -- Grading Scheme	Partial list of wrong answers (how graded)
+1 specifies destination of protein (being synthesized & transported) +1 stretch of aa that are targeted	- NOT EXTRACELLULAR - NOT SIGNAL CASCADE - NOT ALLOWING PROTEIN TO ENTER CELL - does NOT TRANSLATE A PROTEIN - DOES NOT INITIATE TRANSLATION (NO DNA BASE PAIRS)