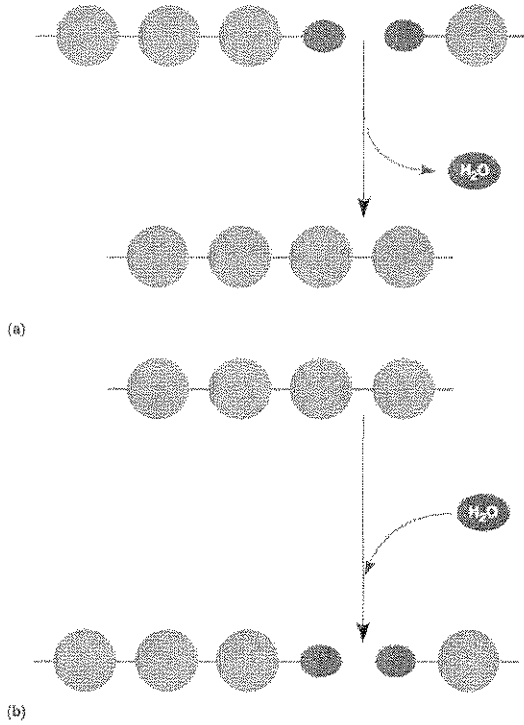


MCC Biology  
Chapter 5 Guided Reading Assignment

Name SUGGESTED ANSWERS MAY  
BE FOUND ON THE FOLLOWING  
PAGE OF CAMPBELL BIO 8<sup>th</sup> ed.  
p. 69

1. Label the diagram below – identify a monomer, polymer, condensation reaction, and hydrolysis.



2. What are the three hexose monosaccharides? FIG 5.3 p. 70

3. What is a glycosidic linkage and what do the numbers 1-4 and 1-2 relate to?

FIG 5.4, 5.5 p. 71

4. Compare and contrast the two storage polysaccharides.

FIG 5.6 p. 72

5. Compare and contrast the two structural polysaccharides.

*p. 72, 74*

6. Why are lipids grouped together?

*p. 74*

7. What are the building blocks of fats?

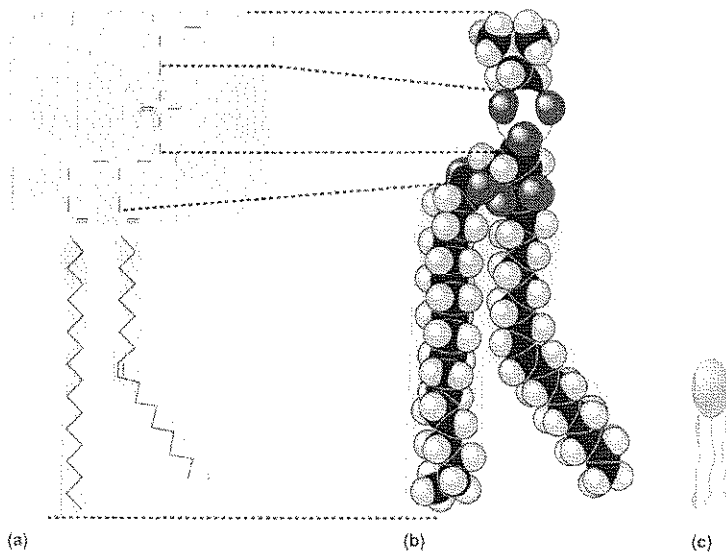
*p. 75*

8. Contrast saturated and unsaturated fats – how does this relate to the concept that structure and function are linked?

*FIL 5, 12 p 75*

9. Label the molecule below.

*p. 76*



10. How would you recognize a basic steroid molecule?

*p. 77*

11. List the eight types of proteins and their basic function.

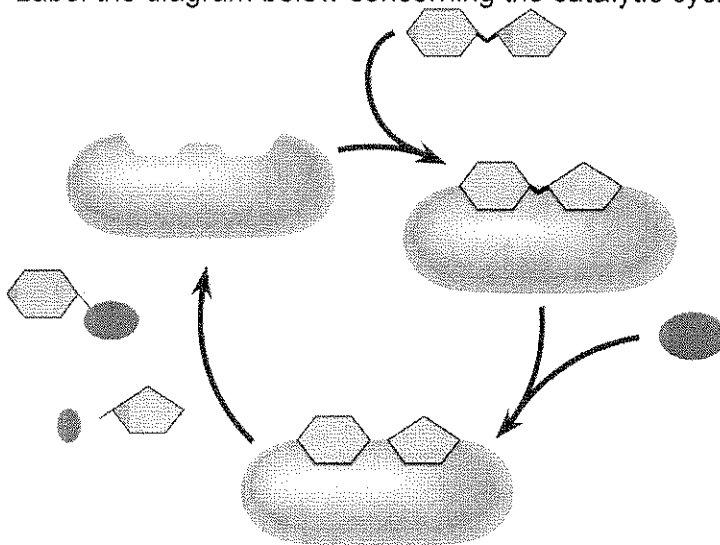
*FIG 5.1 p. 78*

12. What are the names for the monomers and polymers of proteins?

*p. 78-80*

13. Label the diagram below concerning the catalytic cycle of an enzyme -

*p. 78*



14. Draw two amino acids – note the amino group, the carboxyl group and the alpha carbon, circle the water molecule to be removed and then note the peptide bond formed when the two are joined.

*p. 78-79-80*

15. Explain the four levels of protein structure –  
a. Primary

*p. 82-83*

b. Secondary

c. Tertiary

d. Quaternary

16. How does the characteristics of an amino acid – nonpolar, polar, acidic or basic relate to the issue of tertiary and quaternary structure?

*p. 83*

17. What does denaturation mean and why is it important?

*Fig 5.23 p. 85*

18. What are chaperonins and what is their role in protein structure?

*p. 85*

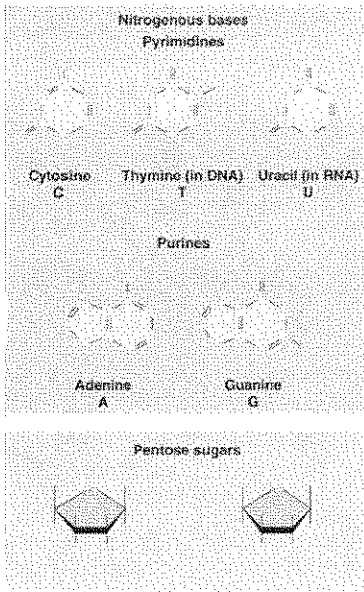
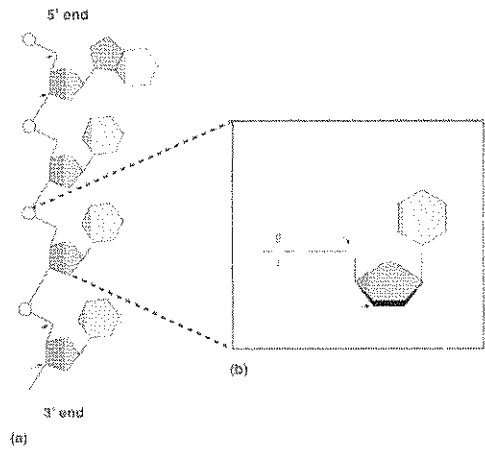
19. Describe the technique of x-ray crystallography.

*p. 86 Fig 5.25*

20. What are the roles of nucleic acids?

*p. 86-87*

21. Label the blank diagram below:



P. 87

22. What is meant by the term that DNA is antiparallel?

P. 88-89