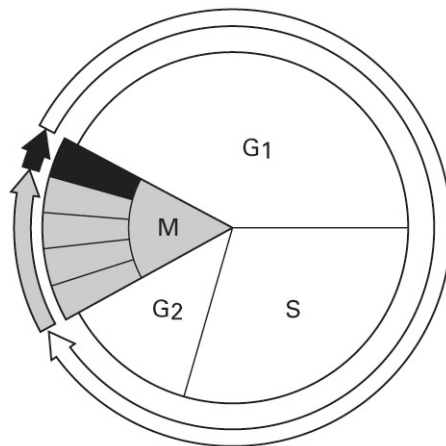


## From DNA to Proteins Diagnostic Test (Chapter 8)

Choose the letter of the best answer.

- \_\_\_\_\_ 1. Genes influence traits by directing cells to make specific  
a. gametes. c. chromatids.  
b. alleles. d. proteins.
- \_\_\_\_\_ 2. Proteins are made up of  
a. enzymes. c. ATP.  
b. amino acids. d. catalysts.
- \_\_\_\_\_ 3. What happens during the S stage of the cell cycle, depicted in Figure 8.1?

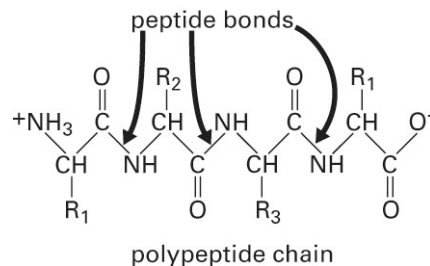


**FIG. 8.1**

- a. The cell divides into two daughter cells.  
b. Genetic information is copied.  
c. The cell “rests” in interphase.  
d. Homologous chromosomes pair up.
- \_\_\_\_\_ 4. An alternative form of a gene that may occur at a specific locus is a(n)  
a. allele. c. autosome.  
b. cross. d. genome.
- \_\_\_\_\_ 5. Within a cell, proteins are made in the  
a. nucleus. c. ribosomes.  
b. Golgi apparatus. d. mitochondria.

**Diagnostic Test *continued***

- \_\_\_\_\_ 6. DNA is contained in a different way in prokaryotic cells than it is in eukaryotic cells because
- prokaryotes are single-celled organisms.
  - only eukaryotic cells have a cell membrane.
  - DNA is found only in eukaryotic cells.
  - prokaryotic cells lack a nucleus.
- \_\_\_\_\_ 7. Carbon-based molecules such as proteins and nucleic acids play important roles in living things because of their
- simple molecular structures.
  - ability to dissolve other substances.
  - unique bonding ability.
  - high specific heat.
- \_\_\_\_\_ 8. What are the peptide bonds linking together in the polypeptide shown in Figure 8.2?



**FIG. 8.2**

- amino acids.
  - nucleic acids.
  - lipids.
  - carbohydrates.
- \_\_\_\_\_ 9. Unlike other carbon-based molecules, nucleic acids are known for their
- single function.
  - varied structures.
  - poor bonding ability.
  - unimportance in cells.
- \_\_\_\_\_ 10. An organism's phenotype is determined by that organism's
- method of reproduction.
  - number of chromosomes.
  - expression of its genotype.
  - percentage of recessive traits.