1. Which parts of the molecule in the diagram below are involved in the formation of peptide bonds?

(1) 1 and 2  
(2) 2 and 3  
(3) 2 and 4  
(4) 1 and 3

2. The diagram below, which number indicates a carboxyl group?

(1) 1  
(2) 2  
(3) 3  
(4) 4

3. A protist measures 500 micrometers in diameter. What is the diameter of this organism in millimeters?

(1) 0.5  
(2) 5.0  
(3) 50  
(4) 500

4. Every living cell contains molecules of

(1) cellulose  
(2) chlorophyll  
(3) protein  
(4) hemoglobin

5. Enzymes are produced as a direct result of which process?

(1) protein synthesis  
(2) photosynthesis  
(3) respiration  
(4) enzymatic hydrolysis

6. All enzymes are examples of organic molecules known as

(1) proteins  
(2) carbohydrates  
(3) lipids  
(4) nucleic acids

7. Saturated molecules of this nutrient, which may predispose humans to cardiovascular disease, are solid at room temperature.

(1) Lipids  
(2) Carbohydrates  
(3) Minerals  
(4) Proteins

8. Proteins ingested by animals are immediate sources of

(1) glucose  
(2) cellulose  
(3) fatty acids  
(4) amino acids

9. If there were no nitrogen compounds in the soil, the most immediate effect on plants growing in that soil would be difficulty in synthesizing

(1) amino acids and proteins  
(2) glucose and polysaccharides  
(3) monosaccharides and cellulose  
(4) fatty acids and lipids

10. An element found in all proteins but not found in carbohydrates and lipids is

(1) carbon  
(2) hydrogen  
(3) oxygen  
(4) nitrogen

11. The structural formula of a molecule is shown below.

The part of the molecule indicated by X is known as a

(1) carboxyl group  
(2) hydrogen bond  
(3) peptide bond  
(4) variable side group