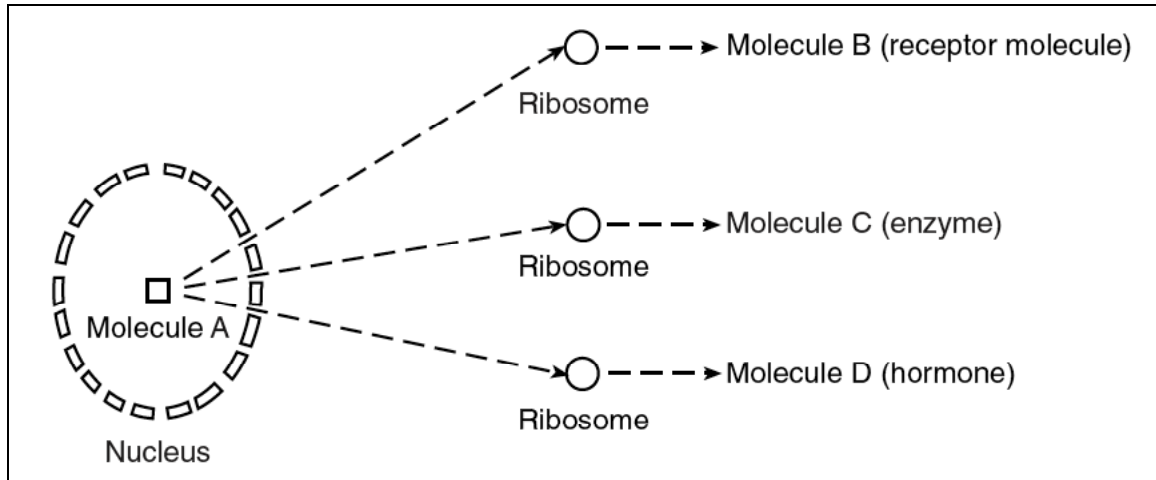


**PROTEIN SYNTHESIS PRACTICE 2**

Interpreting diagrams is an important skill in learning science. The following diagram illustrates some aspects of protein synthesis — the making of a protein from a gene. Let's interpret the diagram by answering the questions.



1. Molecule *A* is meant to represent \_\_\_\_\_
2. Molecule *A* contains the
  - a. starch necessary for ribosome synthesis in the cytoplasm
  - b. organic substance that is broken down into molecules *B*, *C*, and *D*
  - c. proteins that form the ribosome in the cytoplasm
  - d. directions for the synthesis of molecules *B*, *C*, and *D*
3. Molecule *B*, *C*, and *D* are
 

|                  |                  |
|------------------|------------------|
| a. carbohydrates | c. lipids        |
| b. proteins      | d. nucleic acids |
4. Molecules *B*, *C*, and *D* are similar in that they are each
 

|   |  |
|---|--|
| a. composed of genetic information          | c. composed of amino acids                       |
| b. involved in the synthesis of antibiotics | d. control the diffusion of oxygen into the cell |

5. The diagram indicates that molecules *B*, *C*, and *D* do different jobs. Give two reasons why they would do different jobs.

a. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. If molecules *B*, *C*, and *D* all came from molecule *A*, then explain how they can be different from each other.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. The different sections of molecule *A* that have the separate instructions for making molecules *B*, *C*, and *D* are called \_\_\_\_\_

8. What job did the ribosomes do in this diagram?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_