Objectives

- **Explain** how classification schemes for kingdoms developed as greater numbers of different organisms became known.

- **Describe** each of the six kingdoms.

I. What is it?

A. What Is Used to Classify Organisms?
Organisms are classified by their characteristics.

B. Adding New Classification Categories As scientists continue to learn about living things, they add classification categories that account for the characteristics of different organisms.

II. The Two Kingdoms of Bacteria

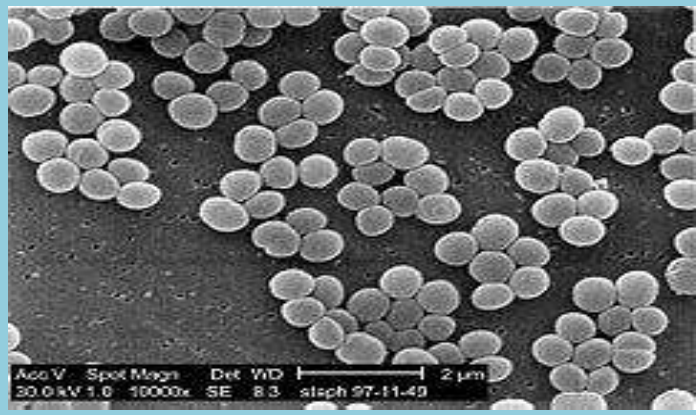
A. Archaebacteria Prokaryotes that can live in extreme environments are in the kingdom Archaebacteria.

A. Prokaryotes: No nucleus "Pro No"

B. Eukaryotes: Have a nucleus "Eu Nu"

B. Eubacteria Eubacteria are prokaryotes that live in soil, in water, and even inside the human body.

http://www.buzzle.com/img/articleImages/444394-3023-49.jpg



http://upload.wikimedia.org/wikipedia/commons/thumb/5/57/Staphylococcus_aureus_01.jpg/240px-Staphylococcus_aureus_01.jpg

III. Kingdom Protista

A. What Are Protists? Members of the kingdom Protista, commonly called protists, are single-celled or simple multicellular organisms that don't fit into any other kingdom.

B. Examples of Protists The kingdom Protista contains many kinds of organisms including protozoans, algae, and slime molds.

IV. Kingdom Fungi

A. What Are Fungi Fungi do not perform photosynthesis or eat food. Members of the kingdom Fungi absorb nutrients from substances in their surroundings.

B. Examples of Fungi Molds and mushrooms are examples of the complex multicellular members of the kingdom Fungi.

V. Kingdom Plantae

A. Plants The kingdom Plantae consists of organisms that are eukaryotic, have cell walls, and make food through photosynthesis.

B. Examples of Plantae Sequoia trees, roses, grasses, ferns, and more are all examples of members of the kingdom Plantae.

VI. Kingdom Animalia

A. Animals The kingdom Animalia contains complex, multicellular organisms that don't have cell walls, are usually able to move around, and have specialized sense organs.

B. Examples of Animalia Ants, beetles, lizards, fish, birds, apes, elephants, and more are all examples of members of the kingdom Animalia.

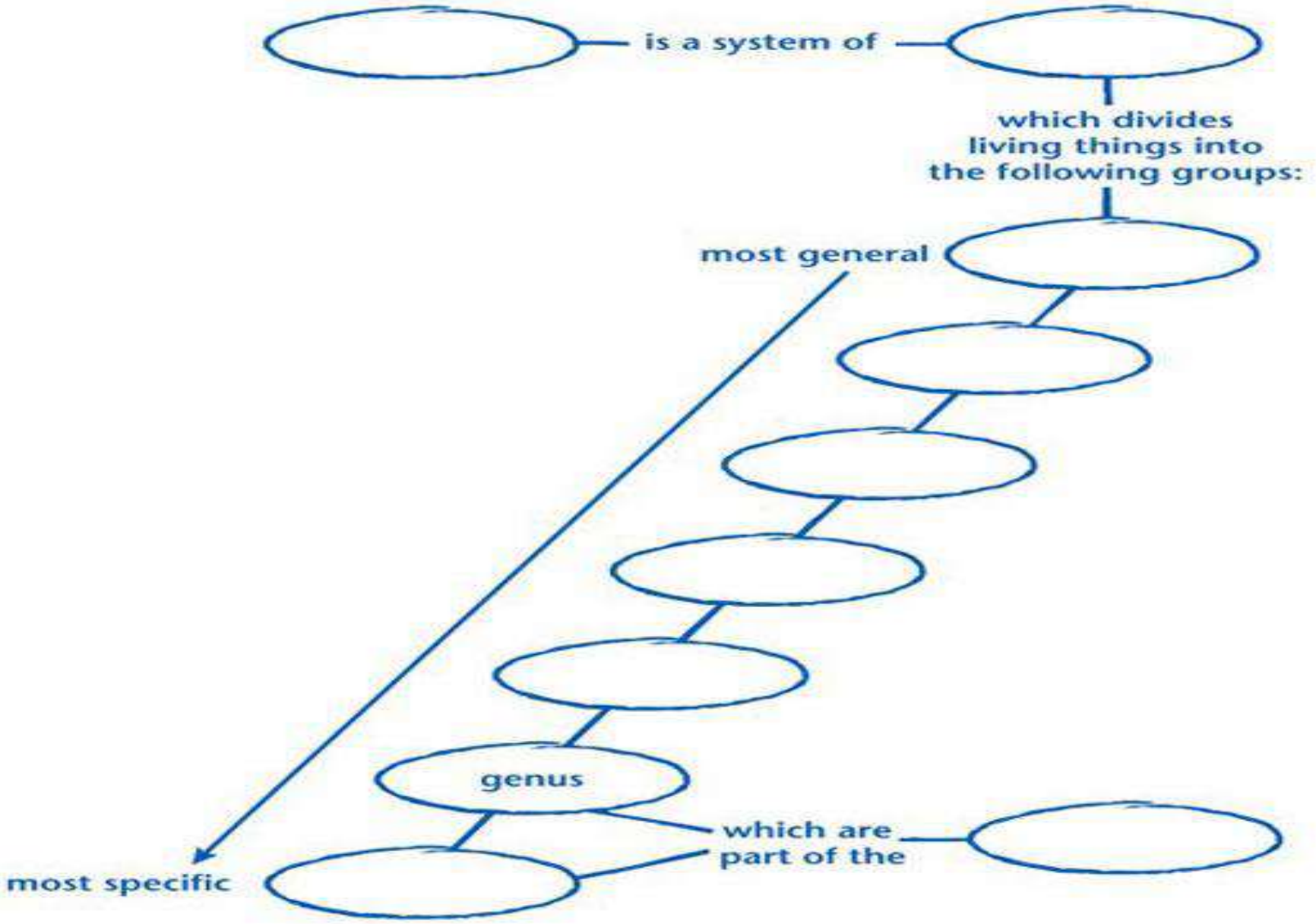
- **Simple Animals** Most animals are able to move, but sponges, a simple animal, cannot move.

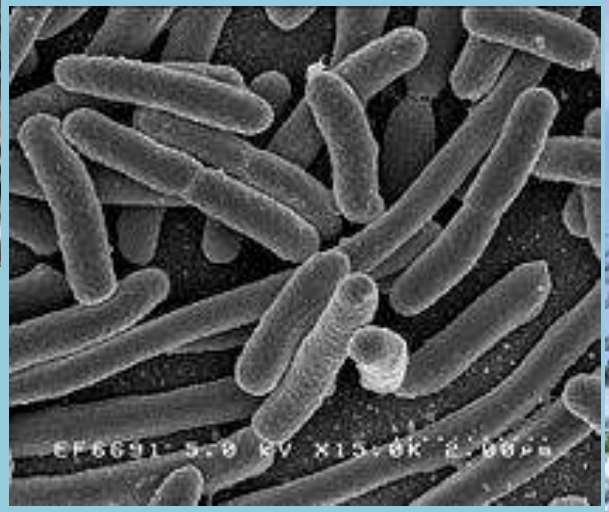
Critical Thinking Time!

The Venus' flytrap does not move around. It can make its own food by using photosynthesis. It can also trap insects and digest the insects to get nutrients. The flytrap also has a cell wall. Into which kingdom would you place the Venus' flytrap? What makes this organism unusual in the kingdom you chose?

Use the following terms to complete the concept map below:

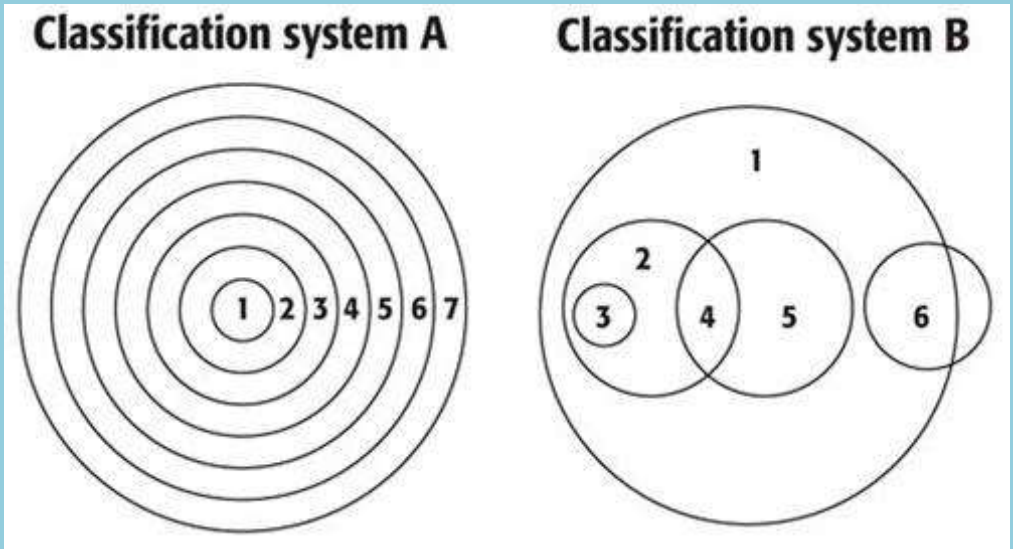
phylum, classification, kingdom, class, family, order, species, scientific name, taxonomy





Interpreting Graphics

The Venn diagrams below show two classification systems. Use the diagrams to answer the questions that follow.



Standardized Test Preparation

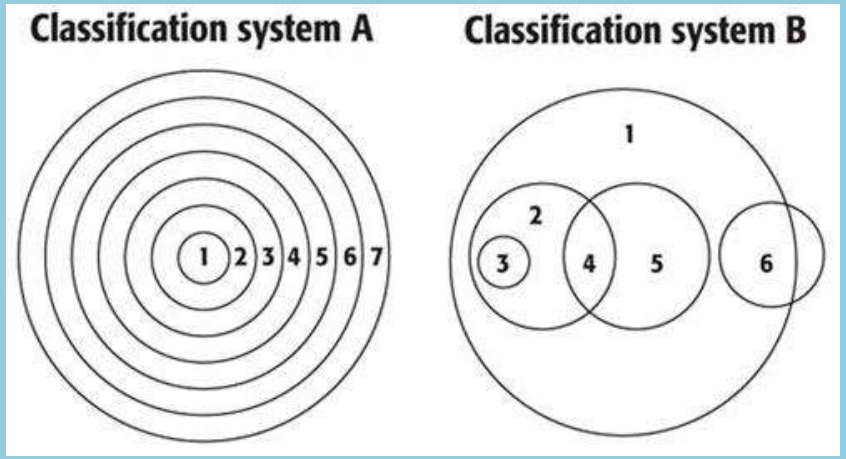
1. For Classification system A, which of the following statements is true?

A All organisms in group 6 are in group 7.

B All organisms in group 5 are in group 4.

C All organisms in group 6 are in group 1.

D All organisms in group 2 are in group 1.



Chapter C7

Standardized Test Preparation

1. For Classification system A, which of the following statements is true?

A All organisms in group 6 are in group 7.

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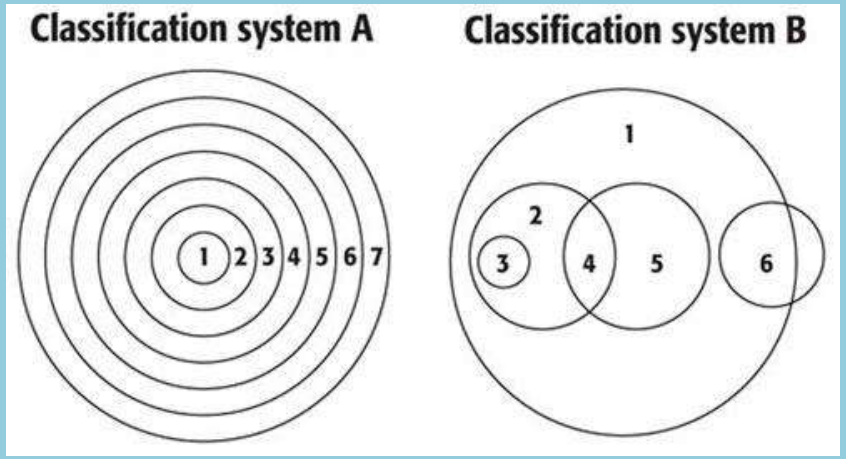
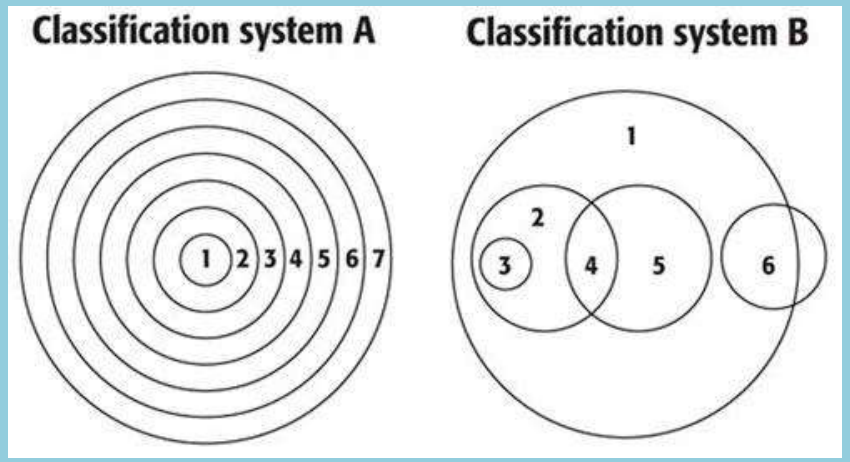


Standardized Test Preparation

2. For Classification system A, which of the following statements is true?



F All organisms in group 3 are in group 2.

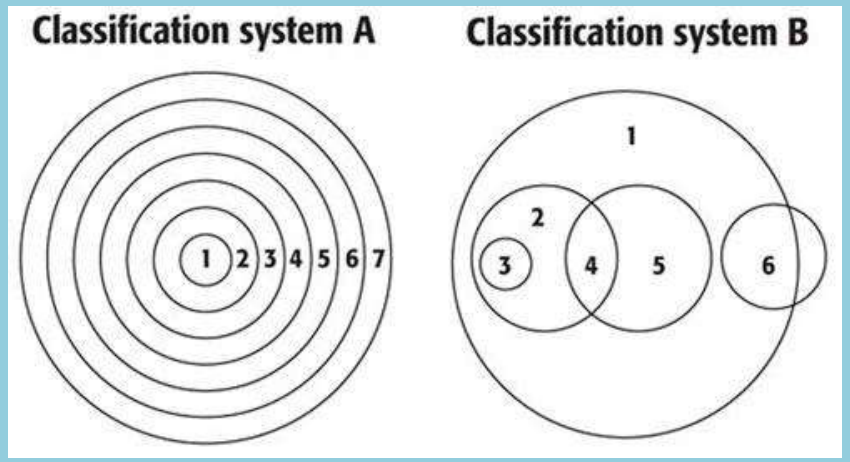
G All organisms in group 3 are in group 4.

H All organisms in group 3 are in group 1.

I All organisms in group 3 are in every other group.

Standardized Test Preparation

2. For Classification system A, which of the following statements is true?



F All organisms in group 3 are in group 2.

G All organisms in group 3 are in group 4.

H All organisms in group 3 are in group 1.

I All organisms in group 3 are in every other group.

Standardized Test Preparation

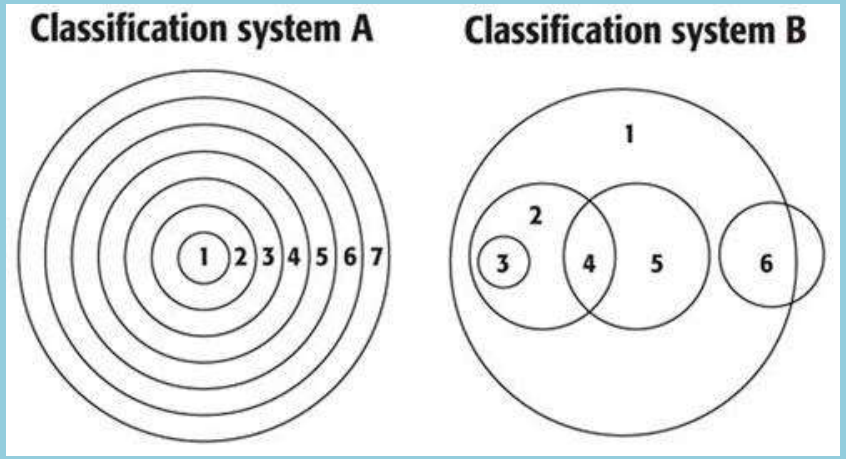
3. For Classification system B, which of the following statements is true?

A All organisms in group 1 are in group 6.

B All organisms in group 6 are in group 1.

C All organisms in group 3 are in group 1.

D All organisms in group 2 are in group 5.



Standardized Test Preparation

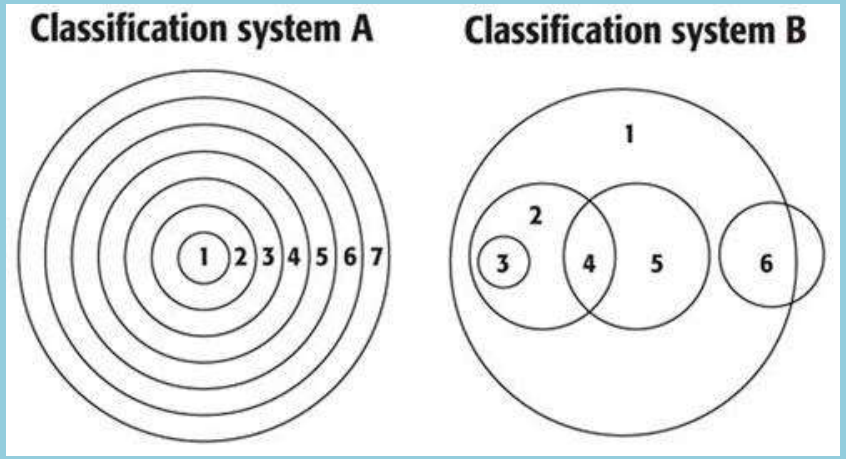
3. For Classification system B, which of the following statements is true?

A All organisms in group 1 are in group 6.

B All organisms in group 6 are in group 1.

C All organisms in group 3 are in group 1.

D All organisms in group 2 are in group 5.



Standardized Test Preparation

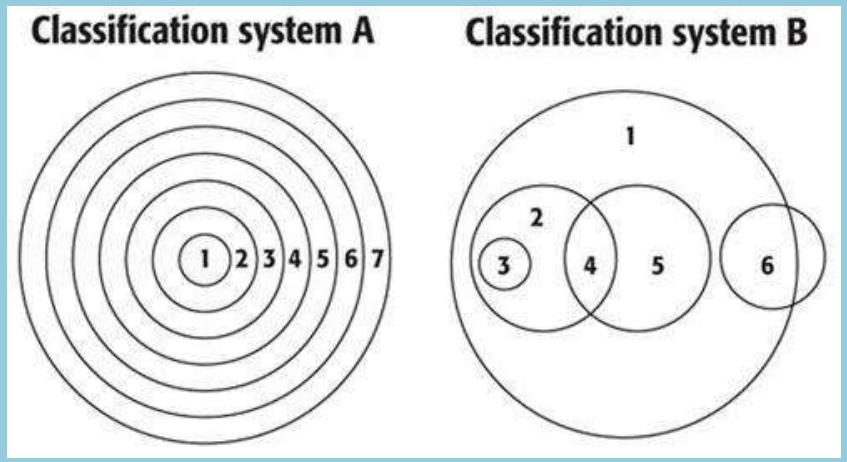
4. For Classification system B, which of the following statements is true?

F All organisms in group 4 are in group 1, 2, and 5.

G All organisms in group 4 are in groups 3 and 5.

H All organisms in group 4 are in groups 5 and 6.

I All organisms in group 4 are in groups 1, 5, and 6.



Standardized Test Preparation

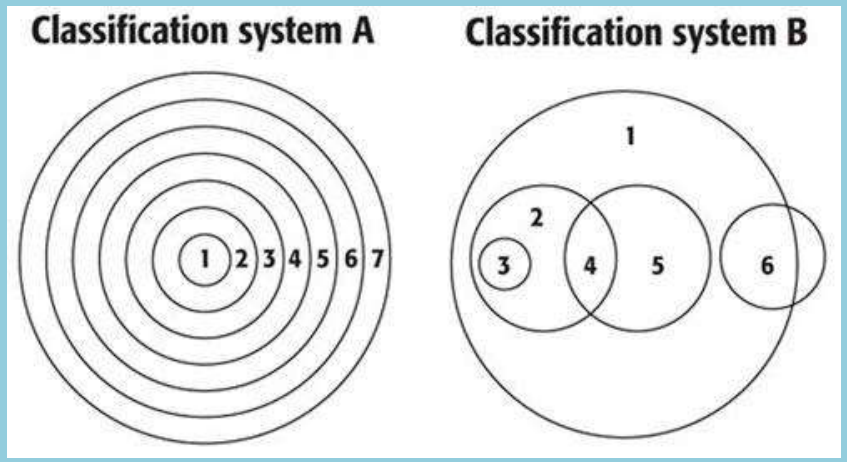
4. For Classification system B, which of the following statements is true?

F All organisms in group 4 are in group 1, 2, and 5.

G All organisms in group 4 are in groups 3 and 5.

H All organisms in group 4 are in groups 5 and 6.

I All organisms in group 4 are in groups 1, 5, and 6.



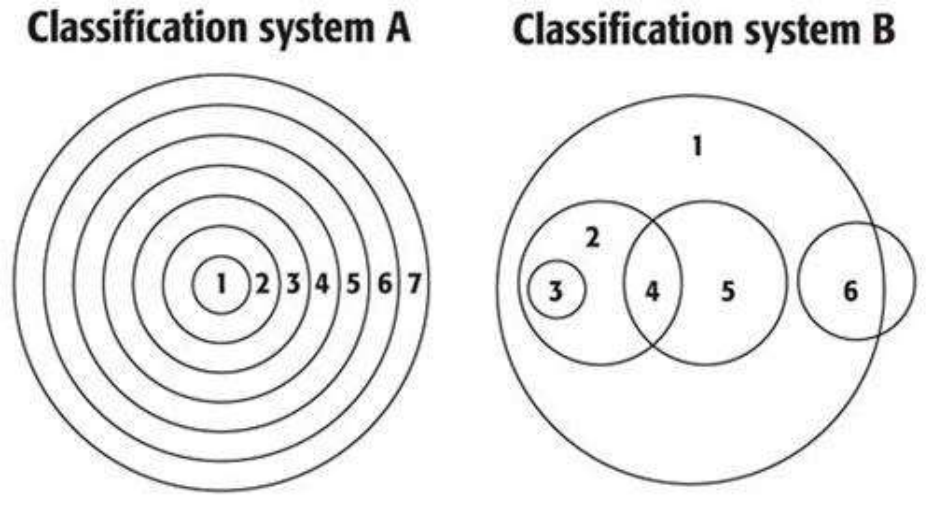
5. In Classification system B, which group contains organisms that are not in group 1?

A 2

B 4

C 5

D 6



Standardized Test Preparation

5. In Classification system B, which group contains organisms that are not in group 1?

A 2

B 4

C 5

D 6