

This practice test is designed to help you determine what concepts you DO know and more importantly what concepts you DO NOT know!

Go through the practice test **THREE** times:

- (1) On your own (2) With your notes (3) With another student



Each time, if you cannot answer a question, draw a circle around it to identify that you should review this concept when preparing for the test.

Multiple Choice: Choose the BEST answer (1 mark each)

- B 1. Which of the following is an **abiotic** part of an ecosystem? *→ not living*
- a. Pill bug
 - b. Sun
 - c. Spider
 - d. Cacti
- B 2. An ecosystem is able to support a maximum of **100 organisms**. What is this idea describing?
- a. Limiting factors
 - b. Carrying capacity
 - c. Small population
 - d. Lack of resources
- D 3. Which wind pattern is responsible for the prevailing winds across **North America**?
- a. Trade winds
 - b. Great ocean conveyor belt
 - c. Polar easterlies
 - d. Westerlies
- D 4. Which of the following is a **biotic** part of the ecosystem? *→ living*
- a. Soil
 - b. pH
 - c. Water
 - d. Pill bug
- B 5. Gases that absorb solar energy in Earth's atmosphere is called...
- a. Greenhouse effect
 - b. Greenhouse gas
 - c. Solar energy
 - d. Coriolis effect
- A 6. Process that absorbs the outgoing solar energy in Earth's atmosphere
- a. Greenhouse effect
 - b. Greenhouse gas
 - c. Solar energy
 - d. Coriolis effect

Short Answer:

1. List each of **earth's 4 spheres**, along with **2 examples** of things from each (4 marks)

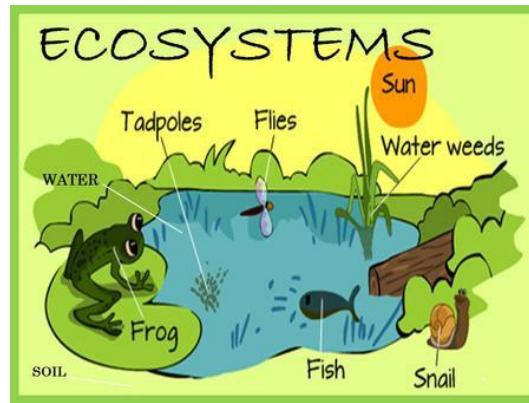
Hydrosphere - rivers, lakes, oceans, ponds

Lithosphere / Geosphere - rocks, sand, mountains

Atmosphere - clouds, air, oxygen

Biosphere - humans, cats, dogs, insects

2. In the following diagram, find 3 abiotic and 3 biotic factors in the ecosystem: (3 marks)

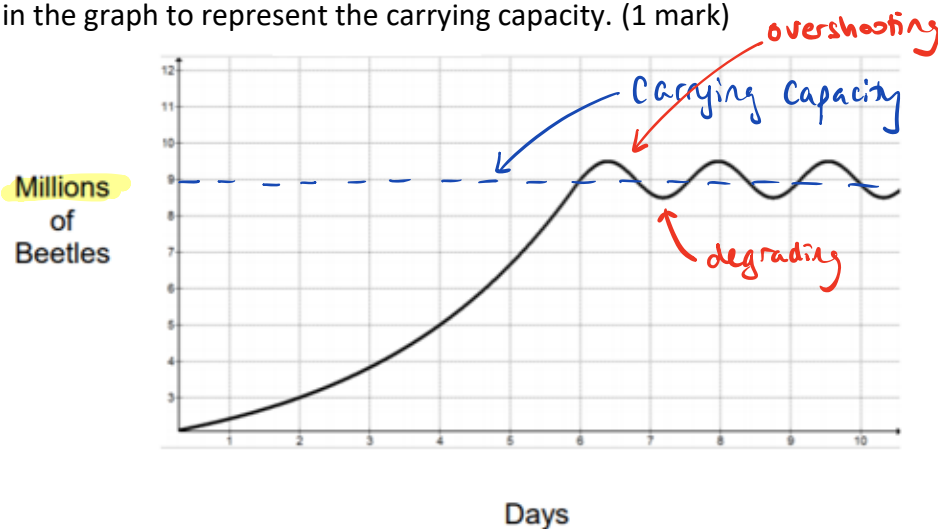


Abiotic	Biotic
SUN	tadpole
Water	snail
soil	Water weeds
	flies
	fish

3. How are limiting factors related to carrying capacity? (1 mark)

Limiting factors often prevent a population from reaching its carrying capacity

4. Draw a line in the graph to represent the carrying capacity. (1 mark)



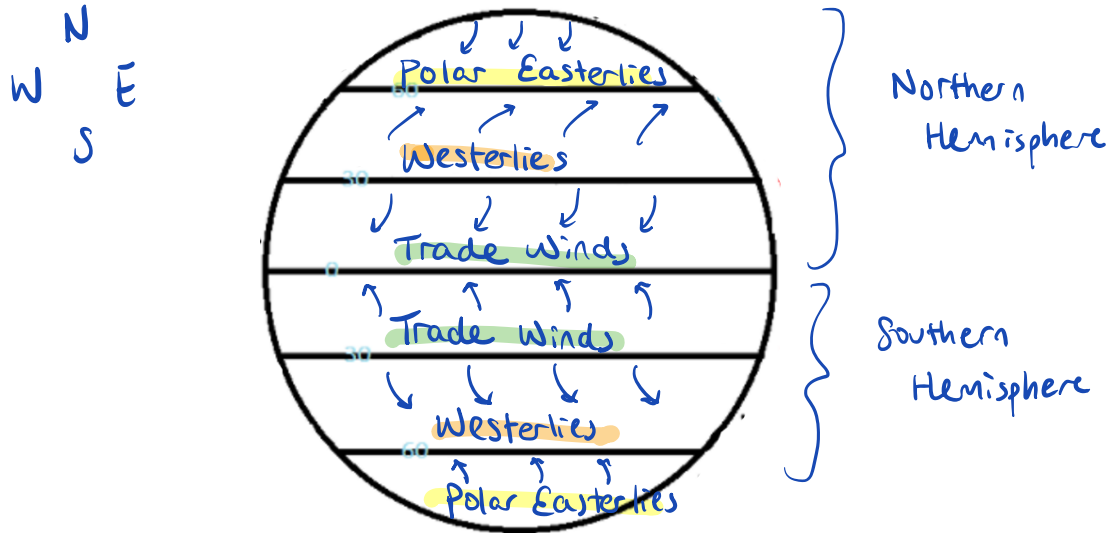
a. What is the carrying capacity in this population of beetles? (1 mark)

9 million beetles

b. If the population continues to exceed the carrying capacity, what may happen over time? Be sure to explain your response. (2 marks)

It may lead to a degraded carrying capacity. Resources will start to get used up, causing the carrying capacity and population to decrease

5. Identify and label the major wind systems that are on Earth: (3 marks)



6. What causes the direction and motion of the winds to occur? (1 mark)

Convection Currents
Rising & falling of air as
it warms & cools

& Coriolis Effect
Earth tends to rotate faster
at the equator than at the poles

7. How are ocean currents and winds related? (1 mark)

Winds cause surface currents → made by convection currents

8. What major things does the Great Ocean Conveyor Belt transport around the Earth? (1 mark)

Thermal Energy, Nutrients, Deep water