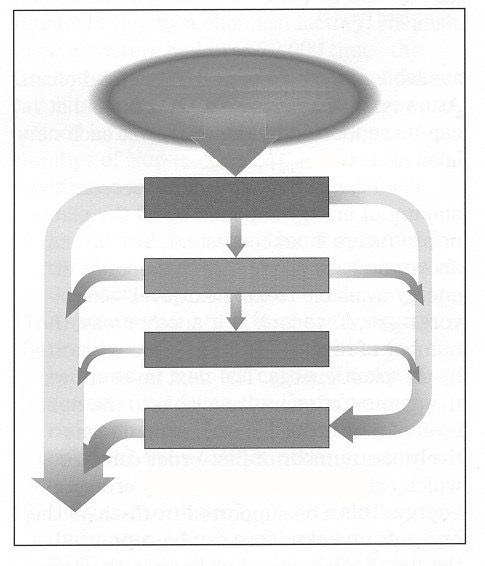
Unit 3: Ecosystems Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Public Exam Practice Questions

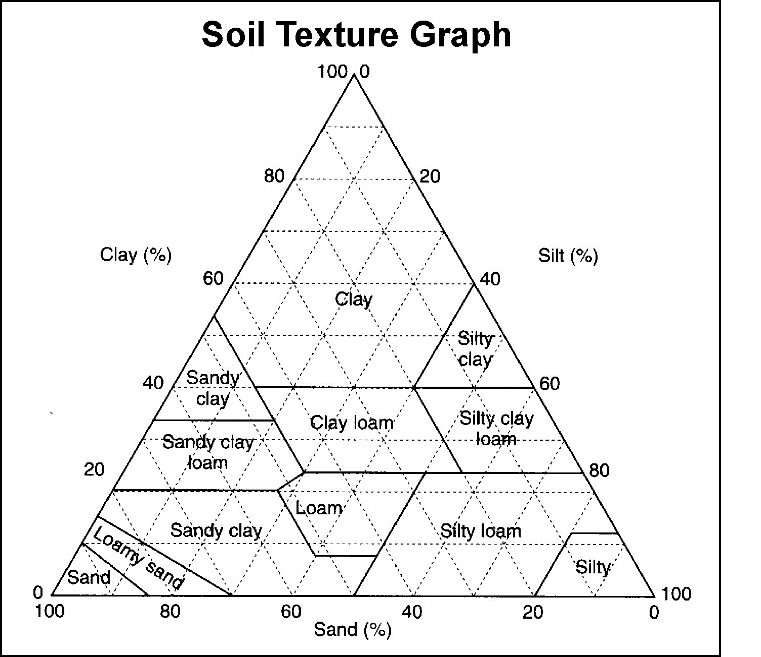
Part A: Multiple Choice

1. According to the diagram below, which number would represent producers?



|  |  |
| --- | --- |
| (A) | 1 |
| (B) | 2 |
| (C) | 3 |
| (D) | 4 |

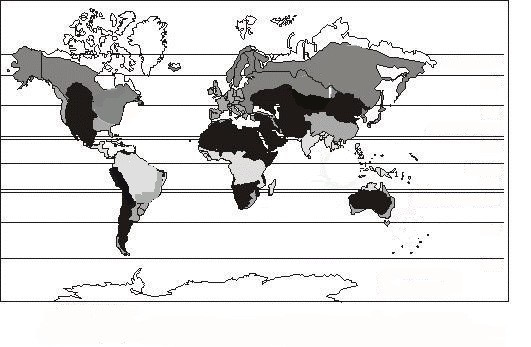
1. Which is an example of biological amplification?
   1. hawks dying from eating prey exposed to insecticides
   2. lake trout dying from exposure to a chemical spill
   3. sea birds dying from exposure to an oil spill
   4. trees dying from exposure to acid rain
2. According to graphic below, which would be the most favourable soil for farming?



* 1. 10% sand, 40% clay, 50% silt
  2. 20% sand, 60% clay, 20% silt
  3. 30% sand, 30% clay, 40% silt
  4. 50% sand, 40% clay, 10% silt

1. According to the map below, which region would be most at risk due to the removal of the rain forest?

|  |  |
| --- | --- |
| (A) | 1 |
| (B) | 2 |
| (C) | 3 |
| (D) | 4 |



1. Which is a community of plants and animals within a particular physical environment?
   1. ecosystem
   2. food chain
   3. food web
   4. pyramid
2. What regions are associated with thick forests of coniferous trees, long snowy winters, and summers with moderate temperatures?
3. boreal forests
4. temperate forest
5. tropical rainforest
6. tundra
7. According to the chart below, which continent has the highest percentage degraded drylands?

|  |  |  |
| --- | --- | --- |
| **Continent** | **Total Agriculturally Used Drylands** | **Degraded Drylands** |
| Australia | 701.21 | 375.92 |
| Europe | 145.58 | 84.28 |
| North America | 578.18 | 328.62 |
| South America | 420.67 | 305.81 |

1. Australia
2. Europe
3. North America
4. South America
5. Which best describes energy flow throughout an ecosystem?
   1. Decomposers obtain energy from 3rd level consumers only.
   2. Energy flows from 3rd level consumers to 2nd level consumers.
   3. 10-15% of energy is passed from one trophic level to the next.
   4. There is no energy transfer from one trophic level to the next.
6. Which world ecosystem matches the description below?

•

•

•

long, snowy winters

summers have moderate temperatures

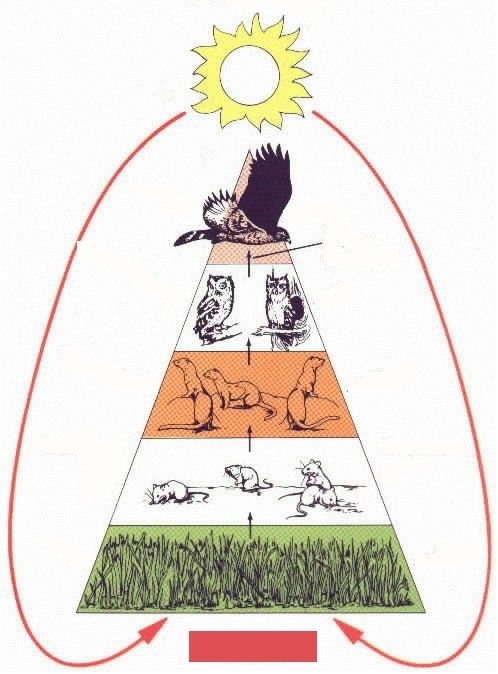
vegetation is dominated by thick forests of needle-leaf trees

* 1. boreal forest
  2. savanna
  3. scrub
  4. temperate forest

1. Which pattern best describes the change in ecosystems from polar regions to the equator?
   1. boreal forest º temperate forest º tropical rain forest º tundra
   2. boreal forest º temperate forest º tundra º tropical rain forest
   3. tundra º boreal forest º temperate forest º tropical rain forest
   4. tundra º boreal forest º tropical rain forest º temperate forest
2. Which refers to the relationship between living and non-living elements of a region?
   1. ecosystem
   2. food chain
   3. food web
   4. trophic level
3. Which forest ecosystem is described below?

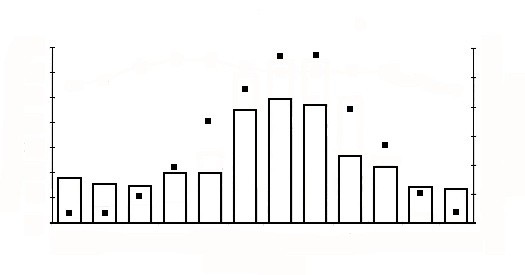
* broad-leaf trees
* loses leaves in winter
* warm summer temperatures
  1. boreal
  2. coniferous
  3. temperate
  4. tropical rain

1. Which explains why toxins concentrate at the top of the food pyramid?
   1. Top consumers are the primary target of pesticides.
   2. Top consumers receive all the energy and toxins from producers.
   3. Toxins are fat soluble and at each higher level become more concentrated.
   4. Toxins are found in water and higher order consumers drink more.
2. Why are there fewer organisms at higher levels in the food pyramid?



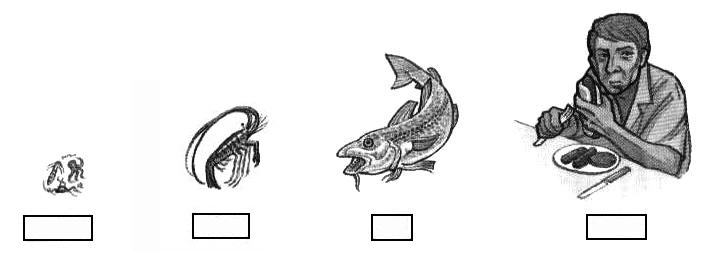
* 1. Decomposers transfer energy to the higher levels.
  2. Most of the energy is contained in the highest level.
  3. Organisms at the higher trophic levels receive energy from the sun.
  4. There is a loss of energy as you move from one trophic level to the next.

1. Which ecosystem would be found in the climatatic region below?



* 1. boreal forest
  2. marine west coast
  3. savanna
  4. temperate grassland

1. Which factor contributes most to increased soil fertility?
   1. capillary action
   2. eluviation
   3. humus accumulation
   4. leaching
2. What does the diagram below best represent?



* 1. decomposers
  2. ecosystem
  3. food chain
  4. food web

1. Which best explains why there are fewer organisms at the top of a food pyramid?
   1. energy is lost from the bottom trophic level to the top
   2. organisms at the top trophic level eat less food to get energy to survive
   3. the available energy is constant through all trophic levels
   4. there is less energy available at lower trophic levels
2. Which world ecosystem is defined as having annual temperatures between 23oC – 27oC and precipitation between 100 cm - 150 cm per year?

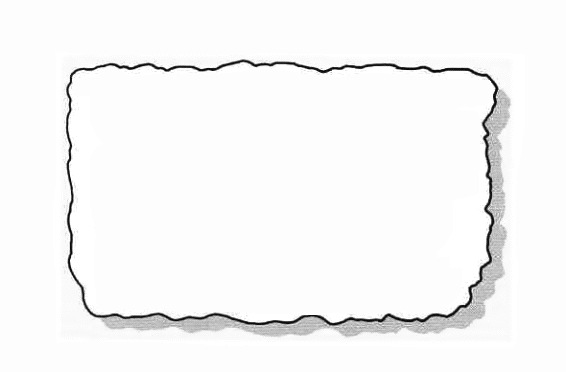
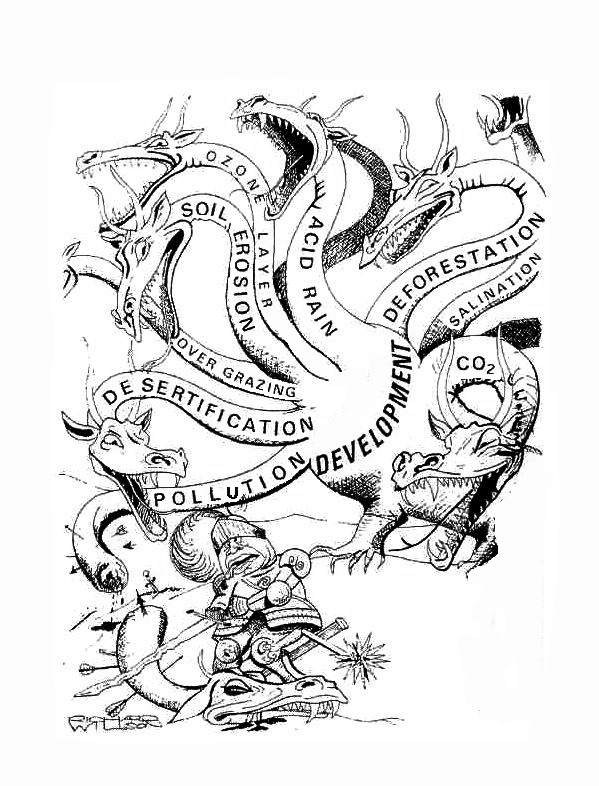


* 1. desert
  2. grassland
  3. savanna
  4. tropical rain forest

Part B: Short Answer

Value

4% 23. Using the sources below and your geographical knowledge, explain two ways human activity has threatened our environment and describe one solution for each threat.



4% 24. Explain why the owl could be greatly impacted by a pesticide introduced at the primary trophic level.

