Ecology Revision

1. Zhenyi came across the plant shown below. It has needle-like leaves to survive in the desert.

 

Using the picture above, state ONE other adaptation that the plant has in order to survive in the desert.

1. Lucy found 4 organisms, P, Q, R and S, living in a habitat. She came up with the following information about the organisms.

|  |  |  |  |
| --- | --- | --- | --- |
| Organism | Eats plants | Eats animals | Makes food |
| P |  |  | X |
| Q |  | X | X |
| R | X | X |  |
| S | X |  | X |

Using the information above, construct a food web about P, Q, R and S in the space provided.

1. Look at the diagram below which shows an ecosystem.



(a) Decomposers play an important role in every ecosystem. Explain the role of decomposers in the ecosystem shown above.

(b) What is the role of the sun in this ecosystem?

1. A camel is able to survive in a desert. State 4 adaptations that enables the camel to survive in the desert.
2. The graph below shows the population of lions and plants in a forest over many years.

 

(a) What do you notice about the population of lions after Point B?

(b) Do you think the plant population has an effect on the population of lions? Explain your answer.

 6. The food web below shows seven populations of organisms living in a community.

 

(a) Based only on the food web above, fill in the table below with the appropriate letters, A, B, C, D, E, F and G.

|  |  |  |
| --- | --- | --- |
|  | **Type of organism** | **Letter(s)** |
| i | Food producer |  |
| ii | Herbivore |  |
| iii | Carnivore |  |
| iv | Omnivore |  |

(b) Using the information given below, add in organism H in the food web above.

(i) Organism H is an omnivore.
(ii) When the population of Organism H increases, the population of Organism decreases.
(iii) When the population of Organism H decreases, the populations of Organism A and C increase.

7. Rearrange the items below to show the correct order in which energy is transferred.

(a) **Boy,    sun,      chicken,        seeds**

 

(b) **goat,     sun,      phython,      grass**



8. Explain what is meant by ecological pyramid? Explain the 3 types

9. What is meant by echolocation? Mention any 2 other adaptations of the Bat

10. X and Y are land plants. However, X will not survive in the Sahara Desert. Give 2 reasons why.



|  |  |  |
| --- | --- | --- |
|  | **Plant Structure** | **Explain why the structure does not allow X to be adapted to desert conditions** |
| (1) | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| (2) | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |