1. If a forest area is completely cleared for farming, what would be the most significant immediate loss of diversity in that area?
2. Imagine a world where all insects disappeared. What immediate effect would this have on plants that rely on insect pollination?
3. Why do most plants have leaves that are green in color?
4. A plant with long, thin, needle-like leaves is most likely adapted to which environment?
5. What is the primary role of flowers in the life cycle of a plant?
6. Why do desert plants often have very small leaves or no leaves at all, like cacti?
7. A plant that grows in a swampy area often has roots that grow above the ground (pneumatophores). What is the likely reason for this adaptation?
8. Which of the following describes the role of a producer in a food chain?
9. Why does a camel have a hump on its back and broad, padded feet?
10. A scientist discovers a new animal in a deep ocean trench. It has bioluminescent organs (produces light) and extremely large eyes. What can be inferred about its habitat?
11. What is the main function of spines on a cactus?
12. Why do plants that grow in salty marshlands (mangroves) often have specialized structures to remove salt from their leaves?
13. Consider a sunflower plant. Which of its parts is primarily responsible for producing seeds?
14. Why do some plants, like the touch-me-not plant, fold their leaves when touched?
15. How are the teeth of a cow (a herbivore) different from the teeth of a tiger (a carnivore)?
16. Why do many desert animals, like fennec foxes, have very large ears?
17. Why do some plants, like peas or beans, have tendrils?
18. If a plant living in a dry environment had very broad, thin leaves, what problem would it likely face?
19. Why do earthworms play an important role in the soil?
20. A pond ecosystem contains algae, snails, fish, and birds that eat fish. Which organism acts as the primary producer in this food chain?