1. Which records are needed for a fair, bounded growth investigation? Choose all that apply.

   ☐ A defined growth measure and observation period

   ☐ Comparable organisms and stated conditions

   ☐ A conclusion inferred only from a cell's shape

   ☐ An approved procedure and actual observations

   Tick every correct option.

2. Why should classification not be based only on one similarity of appearance?

   ☐ Appearance is always useless

   ☐ Only an organism's size matters

   ☐ Relationships need relevant inherited and other evidence, not one visible trait alone

   ☐ All scientific names are identical

3. In an illustrative model only, producers have 10000 energy units and exactly 10% reaches each next level. How many units reach the third consumer level?

   _____

4. A forest is harvested faster than regrowth replaces it. Which interpretation is supported?

   ☐ The harvest is automatically sustainable because trees can regrow

   ☐ Forests cannot regrow

   ☐ The harvest is approved by the word renewable

   ☐ Use exceeds replenishment despite the resource's renewable potential

5. What determines which element an atom is?

   ☐ The number of protons

   ☐ The number of electrons

   ☐ The total mass

   ☐ The number of neutrons

6. Which account distinguishes the natural greenhouse mechanism from a question about its change?

   ☐ It only affects cities

   ☐ That it exists at all

   ☐ It destroys the ozone layer

7. In the supplied string-wave model, what travels along the string while a marked point oscillates?

   ☐ The disturbance and energy propagate while the point oscillates about equilibrium

   ☐ The marked point permanently travels with each crest

   ☐ Nothing propagates

   ☐ Only the complete string moves sideways

8. Homeostasis means internal conditions remain exactly unchanged without regulation.

   ☐ True ☐ False

9. Organisms in different genera can belong to the same family.

   ☐ True ☐ False

10. Decomposers destroy matter and recreate energy for producers.

    ☐ True ☐ False

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1. **A defined growth measure and observation period; Comparable organisms and stated conditions; An approved procedure and actual observations**

   A growth investigation needs a measure, comparable conditions and actual observations. A structural image does not establish a growth result.

2. **Relationships need relevant inherited and other evidence, not one visible trait alone**

   Appearance can contribute evidence, but one feature does not establish complete relatedness. Identification keys and evolutionary trees serve different tasks.

3. **10**

   Under that explicit assumption, $10000 \rightarrow 1000 \rightarrow 100 \rightarrow 10$. This is a toy calculation, not a universal ecosystem efficiency or maximum-chain rule.

4. **Use exceeds replenishment despite the resource's renewable potential**

   Compare use and replenishment over a stated period. Renewable potential does not guarantee sustainable use or approval.

5. **The number of protons**

   The atomic number is the element. Change the neutrons and you have an isotope of the same element.

6. **A change in its size, since without it the planet would be far colder**

   Greenhouse gases absorb and emit thermal infrared. The existence of the mechanism and changes in its effects are distinct questions; it is not the same as ozone depletion.

7. **The disturbance and energy propagate while the point oscillates about equilibrium**

   Distinguish medium-point motion from disturbance propagation in the stated model. Do not turn this into a claim that real water surfaces can never also have currents or drift.

8. **False**

   Homeostasis involves regulation within suitable limits. A changing response can help maintain conditions without making every value perfectly constant.

9. **True**

   True. In the supplied example, Panthera and Felis are different genera within the family Felidae.

10. **False**

    They break down dead material and help return nutrients to available forms. Matter cycling differs from indefinite recycling of energy.