THE KINSHIP OF ALL LIFE – QUIZ

Part I – Multiple Choice

Directions: Choose the best answer.

1. What does the phrase "kinship of all life" mean in biology?

A. All organisms live in the same habitat.
B. All living organisms are related through common ancestry.
C. All organisms have exactly the same physical characteristics.
D. All organisms depend on humans for survival.

2. What is the strongest evidence that all living organisms share a common ancestry?

A. All organisms live on Earth.
B. All organisms require sunlight.
C. Living organisms share fundamental features such as DNA and the genetic code.
D. All organisms reproduce in exactly the same way.

3. Which molecule carries the genetic information used by most living organisms?

A. DNA
B. Glucose
C. Water
D. ATP

4. What does the nearly universal genetic code suggest about living organisms?

A. Every organism has identical genes.
B. Organisms evolved independently with no relationship.
C. Many organisms inherited a common molecular system from an ancient ancestor.
D. Only animals share genetic information.

5. Which of the following is an example of a homologous structure?

A. The wing of a bird and the wing of an insect
B. The forelimb bones of a human and the flipper bones of a whale
C. The eye of an octopus and the eye of a human
D. The shell of a turtle and the scales of a fish

6. Why are similarities in cellular structures important evidence for the kinship of life?

A. They show that all organisms are the same species.
B. They suggest that organisms inherited important biological features from common ancestors.
C. They prove that all organisms have the same number of cells.
D. They show that organisms cannot evolve.

7. Which statement best explains the relationship between humans and other living organisms?

A. Humans are completely separate from the rest of life.
B. Humans share evolutionary ancestry with other organisms.
C. Humans evolved independently of all other species.
D. Humans are ancestors of every living species.

Part II – Select All That Apply

Directions: Select **ALL** answers that are correct.

8. Which observations provide evidence for common ancestry among living organisms?

A. Similarities in DNA sequences
B. Similarities in cellular processes
C. Homologous structures
D. Every organism having identical physical features

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9. Which characteristics are shared by many or all forms of life?

A. Genetic information
B. Cellular organization
C. Ability to reproduce or participate in reproduction
D. Exactly the same body structure

Part III – True or False

Directions: Write **T** or **F** on the line.

10. _____ All living organisms are believed to have descended from common ancestral life forms.

11. _____ The presence of DNA in living organisms provides evidence of a shared biological history.

12. _____ Humans have no evolutionary relationship to other organisms.

13. _____ Similarities in DNA can be used to study evolutionary relationships among organisms.

14. _____ The kinship of life means that every living organism is genetically identical.

Part IV – Short Answer

15. Explain how DNA provides evidence that different organisms are related.

16. What is meant by "common ancestry"?

17. Give one example of a similarity between different organisms that supports the idea of common ancestry.

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