**Evolution and Behavior Remediation**

**Helpful terms for #1-11:** Darwin adaptation cladogram vestigial organ

Convergent evolution Divergent evolution coevolution behavioral isolation

punctuated equilibrium phylogenic tree geographic isolation homologous structures

1. \_\_\_\_\_\_\_\_\_\_\_\_ Any structure, behavior or process that makes an organism better suited for survival. Give two examples:
2. \_\_\_\_\_\_\_\_\_\_\_ Father of Evolution
3. \_\_\_\_\_\_\_\_\_\_\_ When two species evolve and become more dissimilar
4. \_\_\_\_\_\_\_\_\_\_ Chart used to show evolutionary history and ancestor relationships
5. \_\_\_\_\_\_\_\_\_\_ Structures in different species that have the same appearance and provide evidence that the species shared a common ancestor.
6. \_\_\_\_\_\_\_\_\_\_\_ When a species suddenly appears or disappears due to a catastrophic event or natural phenomenon.
7. \_\_\_\_\_\_\_\_\_\_\_ When two species are evolving and getting more alike
8. \_\_\_\_\_\_\_\_\_\_\_ A remnant of a body structure that no longer has a purposeful use.
9. \_\_\_\_\_\_\_\_\_\_\_Two species that share a relationship evolve with each other. Example: Flowers and pollinators.
10. \_\_\_\_\_\_\_\_\_\_\_ Separating groups by physical features such as a river to eventually form two species.
11. \_\_\_\_\_\_\_\_\_\_\_Separating groups by behaviors such as mating rituals to eventually form two species.
12. What evidence did Darwin use to show that organisms may have shared a common ancestor? (at least 3)
13. True/False: Darwin used DNA and amino acid evidence to determine evolutionary relationships.

Use the Cladogram and Data to answer the following questions #24-26:

1. What group of animals has the most characteristics according to the data table? Where is that organism located on the cladogram?
2. What two organisms are the most similar according to the data and cladogram? Explain your answer.
3. Name all of the organisms according to the cladogram who use lungs to breathe.

17-19.:



 **Use the following terms for questions 20-28 :**

Tropism Nastic Movement Instinct Learned behavior

Classical conditioning Openant Conditioning Pheromone Imprinting Habituation

Taxis Reflex

20 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ivan Pavlov’s discovery that he could train his dogs to have a natural response to an unnatural stimulus.

21. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Trial-and-Error learning, like a rat running through a maze.

22. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Organisms getting used to an unimportant stimulus, so that they eventually ignore it. Give an example:

23. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Konrad Lorenz’s discovery that animals will act like the adult that cares for them during a critical early period in their development. Why is Tarzan NOT a good example of this?

24. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Growth of a plant toward or away from a stimulus. Which is positive, toward or away?

25. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Movement of a plant toward or away from a stimulus. The movement is reversible.

26. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A behavior that an organism can exhibit from birth/hatching without being taught. Give an example:

25. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A behavior that is picked up or modified by experience. Give an example:

26. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ General term for response to a stimulus. Give an example:

27. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A chemical that an organism emits to communicate with other organisms.

28. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A quick response to a stimulus that the organism cannot think about or control. Give an example:

29. What is the role of plant hormones in tropism? Use an example in your explanation.

30. Describe what a honey bee dance is and what it’s used for.