\_\_\_\_ 30. At first, a mutation may make no difference to an individual. Even if the mutation

results in a nonfunctional protein, the body? ’s cell may have a functional copy of the

gene as its second allele. However, this new nonfunctioning version could be passed

on as a recessive allele. This kind of mutation is the probable origin of many recessive

disorders. Only characteristics that are expressed can be targets of natural selection.

Therefore, natural selection cannot operate against recessive alleles, even if they are

unfavorable. What does this explain?

|  |  |
| --- | --- |
| a. | why recessive alleles are never expressed |
| b. | why genetic disorders can persist in a population |
| c. | why advantageous offspring are more likely to survive and reproduce |
| d. | why natural selection can act only against heterozygous carriers of a recessive disorder |

\_\_\_\_ 31. Imagine that a mouse has white fur because of a mutation in its DNA. Which of the

following conclusions can be drawn?.

|  |  |
| --- | --- |
| a. | The white mouse increases the diversity of the species. |
| b. | The white mouse decreases the diversity of the species |
| c. | The internal organs of the white mouse must not function as well as those of other mice. |
| d. | The white mouse is more likely to survive than other mice because it is more visible to predators |

\_\_\_\_ 32. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | springtails and bristletails | c. | springtails and proturans |
| b. | dragonflies and proturans | d. | bristletails and mayflies |

\_\_\_\_ 33. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Eggplant | c. | Pepper |
| b. | Pumpkin | d. | Okra |

\_\_\_\_ 34. 

|  |  |
| --- | --- |
| a. | Horse:Met-Gly-Ser-Ser-Tyr-Arg-  Arg-Asp-His-Glu-Lys-Asp |
| b. | Dog: Met-Gly-Ser-Tyr-Tyr-Arg-His-  Asp-Glu-Lys-Asp |
| c. | Cat: Met-Gly-Ser-Tyr-Tyr-Arg-His-  His-Arg-Cys-Thre-Asp |
| d. | Mouse: Met-Gly-Ser-Tyr-Tyr-Arg-  His-Glu-Val-Val-Leu |

\_\_\_\_ 35. **During a trip to a rain forest, a scientist discovered a new organism living near some rotting logs. The scientist observed that the organism had moist skin, no hair, and an internal skeleton and that it laid its eggs under the logs. This organism was**

**probably a new species of ? —**

|  |  |  |  |
| --- | --- | --- | --- |
| a. | invertebrate | c. | mammal |
| b. | amphibian | d. | reptile |

\_\_\_\_ 36. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | A | c. | C |
| b. | B | d. | D |

\_\_\_\_ 37. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | arctic tundra | c. | deciduous forest |
| b. | shallow marine | d. | tropical desert |

\_\_\_\_ 38. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Dytiscidae | c. | Gyrnidae |
| b. | Haliplidae | d. | Noteridae |

\_\_\_\_ 39. **Which of the following would most likely change the current classification of two closely related flower species to a single species?**

|  |  |
| --- | --- |
| a. | The discovery of a new, related species |
| b. | An analysis of the DNA sequence of  each species |
| c. | An analysis of photosynthesis for each  species |
| d. | The collection of seeds from each species |

\_\_\_\_ 40. **Giant fossil ferns have been found in Canada. Which conclusion can be drawn from this discovery?**

|  |  |
| --- | --- |
| a. | Canada once had a much warmer  climate. |
| b. | Giant dragonflies once lived among the  ferns. |
| c. | Canada was once covered by an ancient sea. |
| d. | Dinosaurs once lived in Canada. |

\_\_\_\_ 41. **Like the camel, many animals that live in soft sandy areas have large wide feet compared to their body size. The large feet are an advantage in these environments because they ? —**

|  |  |
| --- | --- |
| a. | are rapidly toughened by sharp sand  grains |
| b. | allow rapid digging in the sand |
| c. | distribute body weight over a large  area |
| d. | reduce the vibrations caused by walking |

\_\_\_\_ 42. 

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Monera | c. | Fungi |
| b. | Protista | d. | Animalia |

\_\_\_\_ 43. **What structure is common to all five kingdoms of living organisms?**

|  |  |  |  |
| --- | --- | --- | --- |
| a. | DNA | c. | mitochondia |
| b. | nucleus | d. | cell wall |

\_\_\_\_ 44. 

|  |  |
| --- | --- |
| a. | Mullein Weevil  *Gymnetron tetrum* |
| b. | Hazelnut Weevil  *Curculio neocorylus* |
| c. | Pine Reproduction Weevil  *Cylindrocopturus eatoni* |
| d. | Boll Weevil  *Anthonomus grandis* |