**Evolution Unit Assignment 2**

Quiz Instructions

Use the textbook and notes to answer the following questions.

Question 1 1 pts

The \_\_\_\_\_\_\_\_ is the percentage of a particular allele in a population.

allelic frequency

gene pool

gene flow

genetic drift

Question 2 1 pts

The type of selection that favors average individuals in a population

disruptive selection

stabilizing selection

directional selection

artificial selection

Question 3 1 pts

A mechanism for change in a population in which organisms with favorable trait variations live, reproduce, and pass on their favorite traits.

artificial selection

Natural Selection

sexual selection

directional selection

Question 4 1 pts

The evolution of an ancestral species into a array of species that occupy different niches is called:

geographic isolation

adaptive radiation

gradualism

convergent evolution

Question 5 1 pts

Natural selection can be best defined as the

survival of the biggest and strongest organisms in a population

survival and reproduction of organism that occupy the largest area

survival and reproduction of the organisms that are genetically best adapted to the environment

elimination of the smallest organisms in a population

Question 6 1 pts

Structures that have a similar embryological origin and structure but are adapted for different purposes, such as a bat wing and human arm, are called

homozygous structures

embryological structures

Homologous structure

analogous structures

Question 7 1 pts

The flying squirrel of North America is very closely resembles the flying phalanger of Austrailia. They are similar in size, have long, bushy tails, and skin folds that allow them to glide through the air. The squirrel is a placental mammal, while the phalanger is a marsupial. These close resemblances, even though through genetically and geographically separated by great distances, can best be explained by:

spontaneous generation

vestigial structures

convergent evolution

divergent evolution

Question 8 1 pts

Within a decade of the introduction of a new insecticide, nearly all of the descendants of the target pests were immune to the usual-sized dose. The most likely explanation for this immunity to the insecticide is that

it destroyed organisms that cause disease in the insects, thus allowing them to live longer

eating the insecticide caused the bugs to become less resistant to it

it selected random mutations that were present in the insect population and that provided immunity to the insecticide.

eating the insecticide caused the bugs to become resistant to it

Question 9 1 pts

Hawaiian honeycreepers are a group of birds with similar body shape and size. However, they vary greatly in color and beak shape. Each species occupies its own niche and is adapted to the foods available in its niche. The evolution from a common ancestor to a variety of species is an example of:

convergent evolution

vegetative propagation

divergent evolution

cross-pollination

Question 10 1 pts

Upon close examination of the skeleton of an adult python, a pelvic girdle and leg bones can be observed. These features are an example of

artificial selection

comparative embryology

Homologous structure

vestigial structures

Question 11 1 pts

Mutations occur because of

Nemo touched a boat

Invading aliens from other planets

the chance survival and reproductive of new variations

zombee apocalypses

Question 12 1 pts

Isolation caused by differences in courtship or mating behaviors.

reproductive isolation

temporal isolation

geographic isolation

behavioral isolation

Question 13 1 pts

Which of the following is NOT a way behavior can change and result in evolution

courtship dances of birds

pattern of light flashes with fireflies

geographic isolation of a population of deer on an island

courtship songs of frogs

Question 14 1 pts

Which of the following demonstrates how species behavior can result in evolution

An island is formed from a volcanic event producing new habitat for sea turtles

A population of brown trout spawn in the fall rather than other populations which spawn in the spring

A cow is specifically bred as she produces more milk than all other cows.

A bull snake resembles a rattlesnake even though it does not have any venom.

Question 15 1 pts

Which of the following demonstrates how changes in behavior can lead to increased competition for limited resources?

A polar bear can smell and track a seal from miles away. With this physiological adaptation it can better hunt for food.

The alpha wolf of the pack is able to eat the best pieces of food from a kill by his social and behavioral status. After he is done eating, the food left over is fought for by the lower individuals in the social hierarchy.

Moose during the rut compete with each other for breeding rights. This behavior ensures that the strongest moose will pass their traits down to the next generation.

A firefly flashes a series of lights to attract mates. This behavioral pattern of flashes is attractive to the female and allows it to mate.

Question 16 1 pts

Which of the following demonstrates how changes in behavior can lead to natural selection.

A panda bear has evolved a extra “thumb” on its hands by only eating bamboo. This physical adaptation allows it to feed on the food source.

A scientist inserts a “glow in the dark” gene into a cat embryo.

A sage grouse will display a tail fan and beat two sacs in its chest to encourage a female to mate. The passing down of these display traits to the offspring can continue onto the next generation.

A jaguar evolves larger jaws and teeth which allows it to target more species of prey and have a higher kill success rate.

Question 17 1 pts

Which of the following does NOT demonstrate how behavior changes can increase species numbers?

A bird called a lamerguire drops bones onto rocks from a high altitude to crack open the bones and get to the marrow. With this new behavior the bird can get food for its young.

In Japan, Monkeys have learned to use hot springs on cold days to stay warm. With this change of behavior species can survive and reproduce.

Koala bears have chosen to eat a toxic plant called eucalyptus. With this new food source, Koalas can feed their young allowing them to survive.

Due to similar environments, sharks and whales have developed tail fins which allow them to move in the water with less energy usage.