

Name _____

Class _____



Biological Diversity Unit Test

- The most successful life form seems to be the insect. It is a **species** - a particular group of organisms that have the same structure and can...
 - have the same predators
 - consume the same food supply
 - live in the same area
 - reproduce with each other
- The main components of biodiversity occurring within organisms at a cellular level, as it describes the variety of life producing material carrying the variation information in all living things is called ...
 - Ecosystem diversity
 - Community diversity
 - Species diversity
 - Genetic diversity
- Foresters might decide to burn one part of a forest because...
 - disease is likely to kill off all the trees in the forest, so they give nature a helping hand
 - sacrificing one part of the ecosystem to save the main parts is also necessary sometimes
 - habitat is increasing to such an extent that some forest species have to be displaced
 - interspecies reproduction might destroy the natural forest ecosystem balance
- This compares kinds of species in a certain area with the total number of organisms in that same area, or ecosystem. It is primarily used to check on the health of an ecosystem – a healthy ecosystem has a
 - low diversity index
 - high diversity index
 - high variation level
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- Some bird species, like warblers, share resources by accessing these resources in different ways. They avoid direct competition for the same resource, by practicing a technique called ...
 - food supply sharing
 - nutrient cooperation
 - resource partitioning
 - interspecies sharing
- Canada supports large populations, with little diversity is the extreme environment and seasonal variations. The reason this restricts species' diversity is because of the limited ...
 - habitats
 - diseases
 - competition
 - food supply
- Different types of ongoing relationships between and among all the organisms, within a particular environment, are represented by ...
 - food chains and food webs
 - niches and speciation
 - competition and predation
 - adaptation and habitation

8. A different type of interdependence is an association, within a certain population, between members of different species happens when two or more species need the same resource. This type of relationship which helps to limit the size of populations, of the competing species is called
- A. mutualism
 - B. parasitism
 - C. commensalism
 - D. interspecies competition

9. There are different types of asexual reproduction: When the cell duplicates its contents, including its nucleus and other organelles and then splits into two cells with each one being identical (bacteria, amoeba, algae)

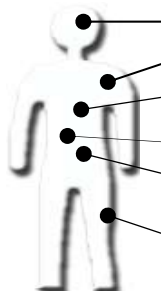


- only single-celled organisms reproduce in this way – it is called

- ...
- A. budding
 - B. tuber formation
 - C. binary fission
 - D. spore production
10. Spores are similar to seeds, but are produced by the division of cells on the parent, not by the union of two cells. Some fungi and green algae can also produce types of spores that move using tail-like flagella and are called ...
- A. paramecium
 - B. flagella spores
 - C. pseudopods
 - D. zoospores
11. Plants continue to grow throughout their lives. The rapidly growing tips of roots and stems contain specialized cells called meristems that function in the process of ...
- A. reproduction
 - B. transportation
 - C. photosynthesis
 - D. respiration
12. A primitive form of sexual reproduction in which bacteria are able to transfer genetic material directly from one cell to another is called bacterial conjugation. Because there is no increase in the number of cells, it does result in genetic...
- A. redistribution
 - B. recombination
 - C. reconstitution
 - D. recovery
13. Plants which are not identical to either parent plant are produced as a result of ...
- A. zygote growth
 - B. cross-fertilization
 - C. embryo development
 - D. self-pollination
14. The pistil is composed of the following flower parts ...
- A. ovary, filament, stigma
 - B. stamen, stigma, ovary
 - C. anther, ovary, stigma
 - D. stigma, style, ovary
15. Inherited (heritable) characteristics are those traits that are passed on to offspring directly from their parents. Heritable traits include, structural and distinguishing characteristics. All of the following are heritable traits, except ...
- A. earlobes
 - B. skin color
 - C. eye color
 - D. artistic ability

16. Continuous variations are differences in characteristics that have a range of possible variations. Discrete variations are differences in characteristics that have a definite form, with a limited number of possibilities. The only discrete variation included here is ...
- hair color
 - blood groups
 - earlobe attachment
 - tongue rolling ability
17. Having six fingers on one hand is relatively rare in the general population. The following is the only true statement about this unique trait, "It is an inherited trait that is ...
- recessive with a low frequency
 - recessive with a high frequency
 - dominant with a low frequency
 - dominant with a high frequency
18. Non-inherited characteristics are acquired and not necessarily passed on from generation to generation. Some variations may be influenced by interactions with the...
- parents
 - scientists
 - engineers
 - environment
19. Mutations can cause changes in the structure of organisms, including people. Mutagens, cause mutations to occur – some that have little visible effects and some that have dramatic effects. The mutagen that would have the most dramatic effect in a person would likely be ...
- x-rays
 - gamma rays
 - microwaves
 - ultraviolet rays
20. The DNA molecule is like a ladder twisted into a spiral. The sides of the ladder are the same in all DNA molecules, but the rungs are what make the variations. Each rung pairs up two of the following chemicals: guanine (**G**), cytosine (**C**), adenine (**A**) and thiamine (**T**). The arrangement of these four chemicals creates the code that the cells are able to interpret. This code is called the ...
- Genetic code
 - Mutagen code
 - Variation code
 - Chromosome code
21. 46 tightly coiled strands of DNA in humans represent the full compliment of ...
- gametes
 - sperm cells
 - egg cells
 - chromosomes

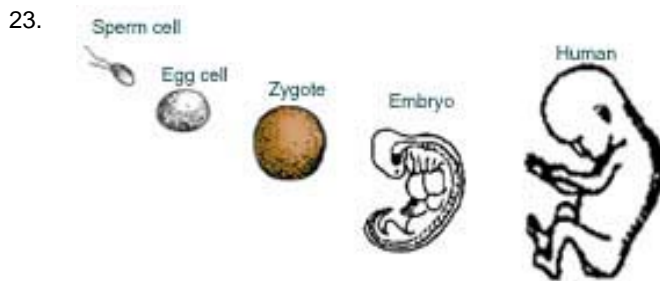
22. Different human cells (*somatic cells*) have different life spans.

	Brain cells	30-50 years	
	Red blood cells	120 days	
	Stomach lining cells	2 days	
	Liver cells	200 days	
	Intestine lining cells	3 days	
	Skin cells	20 days	

Replication of the contents of each cell occurs when the cell reproduces.

When a cell divides, each cell ends up with a complete set of chromosomes, identical to each other and identical to the original cell. This process of Mitosis occurs most frequently in ...

- skin cells
- liver cells
- intestine lining cells
- stomach lining cells



- This type of sexual reproduction within a species increases ...
- A. **variation**
B. **mutations**
C. **vulnerability**
D. **specialization**
24. Moving pieces of one strand of DNA to other cells is a relatively new technique that has emerged. In the science of genetics, this technique has enabled scientists to create individuals within a species with desirable traits and is called ...
- A. **biodiversity**
B. **biomagnification**
C. **genetic diversity**
D. **genetic engineering**
25. One of the first uses of modern biotechnology was to move a human gene into bacteria. By doing this, bacteria were able to produce as a waste product, large quantities of a drug, used by diabetes patients, called ...
- A. **Aspirin**
B. **Insulin**
C. **Tylenol**
D. **Quinine**
26. Aquaculture is becoming an increasingly important method of mass production fish farming, however, if these 'special' fish make it out into the open ocean, what organisms be negatively affected?
- A. **fishermen and biologists**
B. **predator populations**
C. **natural fish population**
D. **large mammal population**
27. To produce purebred organisms, a breeder would choose purebred parents, those parents whose ancestors have produced only the desired characteristic. If a breeder chooses two different 'true-breeds', then the offspring produced would be a ...
- A. **domestic**
B. **mutant**
C. **gamete**
D. **hybrid**
28. Long before the science of genetics started, people tried to reproduce organisms with only the most preferred traits, by allowing only those organisms with the desirable traits to reproduce. This method was not always successful, but it provided scientists with information to help them determine which alleles were responsible for specific traits through ...
- A. **organization**
B. **trial and error**
C. **scientific research**
D. **opinion and thought**
29. The process of intervention to produce more desirable organisms takes a long time to see results - usually many generations. Speeding up the artificial selection process by using cells to make new cells is called ...
- A. **cloning**
B. **in vitro fertilization**
C. **genetic engineering**
D. **artificial insemination**

30. The specimens and observations made by Charles Darwin about the diversity of life on the Galapagos Islands is detailed in his most famous book, *Origin of the Species*. Darwin was the first scientist to explain that selection process occurred ...
- A. automatically
 - B. instinctively
 - C. artificially
 - D. naturally
31. Other examples that can be explained using Darwin's theory include what happened to this insect in industrialized England. The change in coloration enabled this species of moth to survive. The species is known as the ...
- A. Salted Moth
 - B. Sugared Moth
 - C. Peppered Moth
 - D. Black and White Moth
32. Diseases and natural events occur all the time and when they do, the loss of an entire species, within a particular area, causes that species to be ...
- A. extinct
 - B. extirpated
 - C. threatened
 - D. Endangered
33. Scientists estimate that 99% of all species that have ever existed on the Earth are now ...
- A. extinct
 - B. extirpated
 - C. threatened
 - D. Endangered
34. The stresses of urbanization and habitat intrusion, by farming and industry, have resulted in extinction, population decreases and degradation of ecosystems, all of which reduce ...
- A. variation
 - B. genetic selection
 - C. biological diversity
 - D. ecological renewal
35. The Grizzly Bear helps us to determine the human impact on an ecosystem. This large carnivore's ability to survive or disappear is historically a sign that human interference in an ecosystem is occurring or not. Grizzly Bears are considered to be ...
- A. Bioaccumulated species
 - B. Biomagnified species
 - C. Biodiverse species
 - D. Bioindicator species
36. Tropical rainforest are being clear-cut to make way for farmland, cattle ranches, pineapple and coffee plantations, and fuel. Loss of rainforests, mean the extinction of specialized organisms depending on the forests for food and protection. The impact of population is not shared equally around the globe. The hardest hit, where diversity is most threatened, are in ...
- A. developing regions
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 - C. remote regions
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37. The major cause of the decline and eventual extirpation of the plains Bison, as well as the extinction of the passenger pigeon and the black-tailed prairie dogs was ...
- A. disease
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38. Zoos didn't become public until the early 1800's – in London. They were not originally started to preserve diversity. They were ...
- A. exotic collections for private collectors
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39. The preservation of biological diversity depends on local efforts and global efforts. The **Canadian Biodiversity Strategy** was created to preserve biodiversity in Canada in ...
- A. 1850
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40. Global Treaties: 1975 Convention on International Trade of Endangered Species (CITES) is aimed at preventing endangered plants and animals from being imported or exported. It is...
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NR1 - Match the type of Asexual Reproduction described below.

- 1- the parent produces a smaller version of itself
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_____ **Vegetative reproduction**

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NR2 - Interdependence of species within the environment is necessary for survival. Symbiosis is an association between members of different species.

- 1- one organism benefits the other doesn't
- 2- one organism benefits, the other is harmed
- 3- one organism appears to be like another organism
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_____ **commensalism**

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_____ **parasitism**

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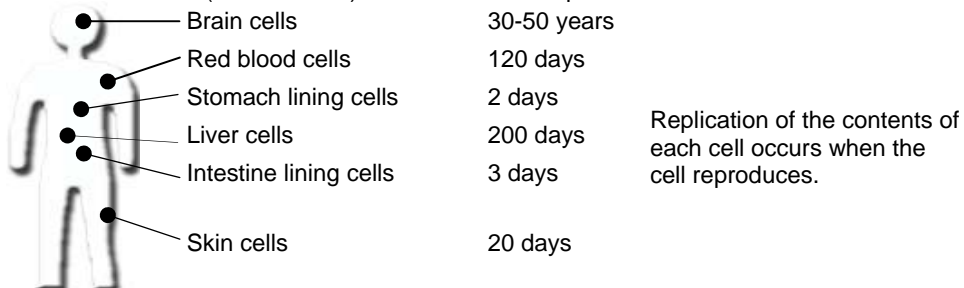
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