* Note: This is version 2. There were mistakes on the original key that was posted. The affect problems are #'s 11, 21, 22, 47,

Name: BIO MYA REVIEW | Class: 2016-2017 | Quiz: KEY

Student ZipGrade ID

Key

0 1 2 3 4 5 6 7 8 9

	A	B	C	D	E
1				●	
2				●	
3		●			
4	●				
5				●	
6		●			
7	●				
8		●			
9		●			
10				●	
11				●	
12	●				
13	●				
14		●			
15		●			
16		●			
17	●				
18		●			
19		●			
20	●				
21				●	
22				●	
23			●		
24	●				
25	●				
26		●			
27	●				
28			●		
29				●	
30			●		
31		●			
32		●			
33		●			
34			●		
35			●		
36				●	
37	●				
38			●		
39		●			
40		●			
41	●				
42	●				
43			●		
44	●				
45				●	
46	●				
47		●			
48			●		
49		●			
50			●		
51			●		
52			●		
53		●			
54			●		
55		●			
56				●	
57		●			
58		●			
59	●				
60				●	
61	●				
62	●				
63			●		
64		●			
65			●		
66		●			
67	●				
68			●		
69		●			
70		●			
71				●	
72				●	
73		●			
74		●			
75	●				
76			●		
77				●	
78		●			
79	●				
80				●	
81	●				
82				●	
83				●	
84	●				
85				●	
86			●		
87		●			
88					
89					
90					
91					
92					
93					
94					
95					
96					
97					
98					
99					
100					

ZIPGRADE.COM

• Do not fold or bend sheet
• Erase mistakes completely

• Use pencil or dark pen
• Fill circle fully

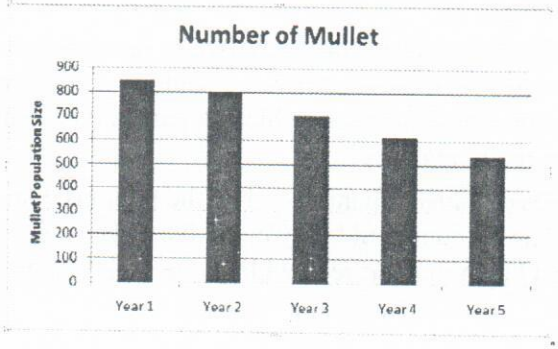
CC BY SA

Name: _____ Class: _____ Date: _____ ID: A

Mid Year Review

Multiple Choice
Identify the choice that best completes the statement or answers the question.

____ 1. Mullet are local estuarine fish that move in schools and feed on plankton and plant matter. Natural predators of the mullet include spotted sea trout, sharks, pelicans and dolphins. The graph below shows how the number of mullet in an area has changed over time.



Based on the data, one student concludes that a new predator was introduced into the area during this time period. Which of the following is a likely alternate explanation for the change in the mullet population?

a. mullet prey increased in the area b. mullet parasites decreased in the area c. the temperature of the area increased d. the amount of aquatic plants in the area decreased

____ 2. How does the predator-prey relationship affect a population?

a. The predators and prey are in competition with each other. b. Usually either the predator or the prey will become extinct. c. The predator species usually has exponential growth. d. The relationship controls the population size of both species

____ 3. Data on the immigration and emigration of a fish species would be most helpful in determining which of the following?

a. biological magnification b. interspecies competition c. population of the species d. predator-prey relationships

____ 4. The pH of the water in several lakes in Norway and Sweden had decreased to below 5.0 due to an increase in acid rain. Which of the following is most likely to happen in these lakes?

a. The decline of several fish populations b. an increase in numbers of fish c. an increase in the amount of primary producers d. increased predator-prey relationships

____ 5. Which of the following is a limiting factor in a population of organisms.

a. reproductive replacement b. life spans of the members c. fluctuations in atmospheric temperature d. availability of food

____ 6. Which of the following are abiotic factors that shape ecosystems?

a. worms, plants and temperature b. wind, precipitation, and soil type c. niches, trees, and bacteria
d. sunlight, mushrooms, and wind

____ 7. Which statement correctly describes the relationship between depth and the distribution of life in an aquatic ecosystem?

a. It is a direct relationship. b. It is an inverse relationship. c. There is no relationship between them.
d. The relationship is dependent upon the species in the area.

____ 8. The number of pythons found throughout Everglades National Park has increased in recent years. These huge snakes are not native to Florida and are believed to have been released into the wild by pet owners. Wildlife biologists have initiated attempts to capture and remove these pythons. Which statement best explains the biologists' reasons for removing these pythons from the Everglades?

a. The pythons could upset the territorial boundaries of native organisms. b. The pythons could adapt to overcome diseases common to native snakes. c. The pythons could prey on native organisms and cause native population to decline. d. The pythons could begin to interbreed with native snakes and produce a more successful species.

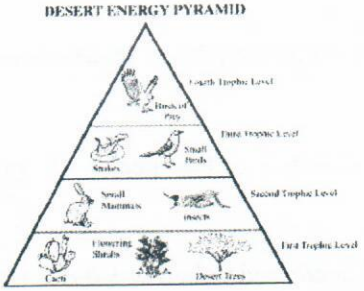
____ 9. Why are there so few aquatic plants and phytoplankton that live at the bottom zones in the ocean?

a. The ocean floor contains many decomposers. b. Most sunlight is absorbed before reaching these levels.
c. Water is a limiting factor. d. The temperature in these zones is extremely low.

____ 10. Complete burning of plant material returns carbon primarily to the

a. herbivores. b. water. c. vegetation. d. atmosphere.

____ 11. A team of ecologists observed feeding patterns of several populations in the desert. The energy pyramid shown below depicts the feeding patterns the ecologist observed.

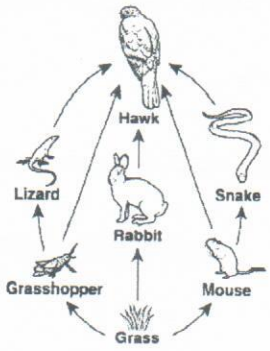


Which of the following best explains the difference in the amount of available energy in the trophic levels of the desert ecosystem?

a. There is less energy available in the producers because their tissues are less dense than those at higher trophic levels. b. There is more energy available in the second trophic level because less energy is needed for hunting compared to the higher trophic levels. c. There is more available energy in the birds of prey because they have greater muscle mass for storing energy than organisms in lower trophic levels have. d. There is less available energy in the fourth trophic level because of the loss of energy through metabolism in each of the lower trophic levels.

Name: _____ ID: A

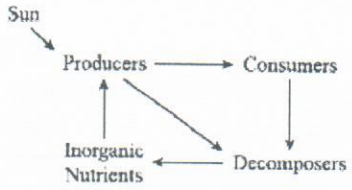
____ 12. A diagram of a food web is shown below.



Which organism receives the least amount of energy from the producers?

a. **Hawk** b. **Rabbit** c. **Grasshopper** d. **Mouse**

____ 13. The diagram below shows the cycling of nutrients in an ecosystem.



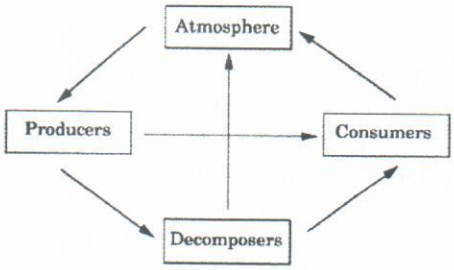
The removal of which of the following groups would cause an immediate decrease in the amount of energy flowing through the system?

a. **Producers** b. **Consumers** c. **Decomposers** d. **Inorganic nutrients**

____ 14. Which of these organisms would most likely be found at the top of an energy pyramid?

a. **clams - a primary consumer** b. **sardines - a primary consumer** c. **sharks - a secondary consumer** d. **kelp - a primary producer**

____ 15. The diagram below shows the flow of carbon in a terrestrial ecosystem.



Which will most likely happen if the decomposers are removed from the carbon cycle?

a. **The amount of carbon dioxide in the atmosphere will increase.** b. **The amount of carbon dioxide in the atmosphere will decrease.** c. **The amount of carbon dioxide used by producers will increase.** d. **The amount of carbon dioxide needed by consumers will decrease.**

____ 16. In a process called transpiration, plants get rid of excess water through pores in the leaves called stomata. This excess water is then released into the atmosphere as part of the water cycle. Which of the following terms best describes how the released water enters the atmosphere?

a. **condensation** b. **precipitation** c. **evaporation** d. **capillary action**

____ 17. The framework of organic molecules essential to all organisms is composed mainly of carbon atoms. Which processes are involved in the cycling of carbon within an environment?

a. **photosynthesis and respiration** b. **evaporation and condensation** c. **transcription and translation** d. **diffusion and transpiration**

____ 18. Which of the following statements is true about natural systems?

a. **Consumers form the bottom levels of both the energy pyramid and the biomass pyramid.**
b. **Producers are at the bottom level of both the energy pyramid and the biomass pyramid.**
c. **Producers are at the bottom of the energy pyramid, but at the top of the biomass pyramid.**
d. **Consumers are at the bottom of the energy pyramid, but at the top of the biomass pyramid.**

____ 19. Salt water is an abundant resource but unusable for irrigation and drinking. As demands on freshwater sources increase, the use of desalination processes to remove salt from ocean water is increasing. A concern of desalinating water is the large amounts of recovered salts that are returned to the ocean. Which of the following describes the most likely impact of desalination on the surrounding ocean environment?

a. **Methane gas would pollute the ocean environment as shoreline organisms begin to die and decay.** b. **Alteration in ocean salt levels would cause loss of species and unbalanced populations in marine food webs.** c. **Nonrenewable resources in the ocean environment would become depleted and upset the ecosystem's balance.** d. **Increased levels of salts and minerals in the ocean would result in overpopulation of marine bivalves due to strengthened shells.**

____ 20. The presence of wastes, such as plastic bags and motor oil, in lakes and streams miles away from developed areas suggests that

a. ecosystems are interconnected and human action can alter ecosystem equilibrium. b. recycling programs have failed to conserve biotic resources. c. natural processes can alter ecosystem stability. d. direct harvesting practices have led to irreversible destruction of ecosystems.

____ 21. DDT and other pesticides used over 50 years ago are still affecting the environment today. Scientists have found these substances in recent glacier runoff. Glacier runoff occurs during the summer, when precipitation that has fallen on glaciers during the winter is released. Ice layers from existing glaciers have been analyzed. The results of this analysis show that the concentrations of DDT and other pesticides were highest about 10 years after the use of these substances was banned.

This information shows that

a. DDT and other pesticides cause glacier runoff during the summer. b. it takes humans over 50 years to analyze a glacier. c. precipitation helps to break down pesticides. d. the decision of one human generation may have an impact on future generations.

____ 22. The northern elephant seal was almost hunted to extinction in the 1800s. By the late 1890s, approximately one hundred seals were left, reducing the gene pool of the population. What will be the consequence of this reduction?

a. **Competition within the population will increase.** b. **The surviving elephant seals will be better able to adapt.** c. **Inbreeding will be less frequent among the remaining population.** d. **The elephant seals will be more vulnerable to environmental change.**

____ 23. A community is concerned about the water quality of a nearby lake. Increased sedimentation in the lake is endangering the native habitat. The increased sedimentation is most likely caused by which of the following?

a. **trees planted along the shore of the lake** b. **construction of homes along the lake** c. **the amount of sunlight on the lake** d. **the amount of fish in the lake**

____ 24. When fertilizers run off farmland into streams and ponds, the nitrogen content of the water increases. This can lead to rapid growth of algae in a process called eutrophication. How can this process affect other organisms in the water?

a. Oxygen is used up as algae is decomposed, reducing the amount available to other organisms. b. The water becomes better able to support aerobic organisms. c. The algae provide food for fishes and other organisms, leading to decreased algae populations. d. The extra nitrogen provides additional food for the other organisms, increasing their population.

____ 25. A strip mining company wants to lease some land that is currently part of a national park. They promise to reclaim the land should any minerals be mined from the area, and they are willing to pay top dollar for the rights. As an ecologist, what factors would you raise with the local government?

a. the threat to local biodiversity b. management of the land after the company leaves c. the new jobs that would be created d. the increased traffic in the area

____ 26. Whaling was a very profitable profession until whale populations crashed. The global community came together to enact a ban on whaling. However, Japan and Norway have not agreed to stop whaling. Which of the following is the most likely consequence of their decision?

a. The whale populations are bouncing back very successfully and are unaffected by Japan and Norway continuing to whale. b. The whale populations are not rebounding as quickly as they might if all of the countries agreed not to hunt whales. c. The whale populations have mutated into new kinds of organisms. d. The whales are getting better at avoiding capture.

____ 27. When an environment has reached its carrying capacity for a certain population, which of the following is true?

a. Growth and immigration rate is equal to death and emigration rate. b. Growth and immigration rate is greater than death and emigration rate. c. Growth and immigration rate is less than death and emigration rate. d. Growth rate is exponential.

____ 28. When a dairy farmer chooses to breed the cows that give the most milk in the herd, the farmers are following the principle of

a. acquired characteristics. b. descent with modification. c. artificial selection. d. natural selection.

____ 29. According to Darwin's theory of natural selection, the individuals that tend to survive are those that have
a. characteristics their parents acquired by use and disuse. b. characteristics that plant and animal breeders value. c. the greatest number of offspring. d. variations best suited to environmental conditions.

____ 30. The principle of common descent helps explain why
a. well-adapted species have many offspring. b. conditions in an organism's environment ensures the organism's survival. c. birds and reptiles share a number of inherited characteristics. d. tigers are so different from cheetahs.

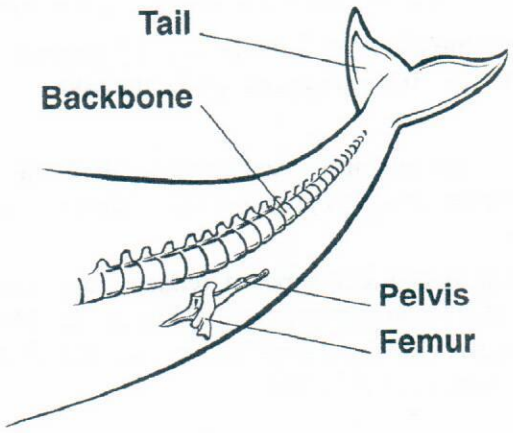


Figure 16–1

____ 31. In humans, the pelvis and femur, or thigh bone, are involved in walking. In whales, the pelvis and femur shown in Figure 16–1 are
a. examples of fossils. b. vestigial structures. c. acquired traits. d. examples of natural variation.

____ 32. If a mutation introduces a new skin color in a lizard population, which factor might determine whether the frequency of the new allele will increase?
a. how many other alleles are present b. whether the mutation makes some lizards more fit for their environment than other lizards c. how many phenotypes the population has d. whether the mutation was caused by nature or by human intervention

____ 33. In genetic drift, the allele frequencies in a gene pool change because of
a. mutations. b. chance. c. natural selection. d. genetic equilibrium.

____ 34. A farmer sprays insecticide on his crops to kill unwanted insects. Most of the insects die, and the chemicals have the effect of damaging the DNA of the insects that are not killed. Which of these has happened?
a. Sexual selection among the insects has changed the gene pool. b. Genetic equilibrium has been maintained. c. Mutations have arisen that may have altered allele frequencies. d. Individuals with new genes have immigrated into the population.

____ 35. Gradualism is a pattern of evolution in which
a. a single species evolves into several closely related species. b. several distantly related species develop similarities. c. a species evolves at a slow, steady pace. d. a species has periods of little evolution interrupted by periods of rapid evolution.

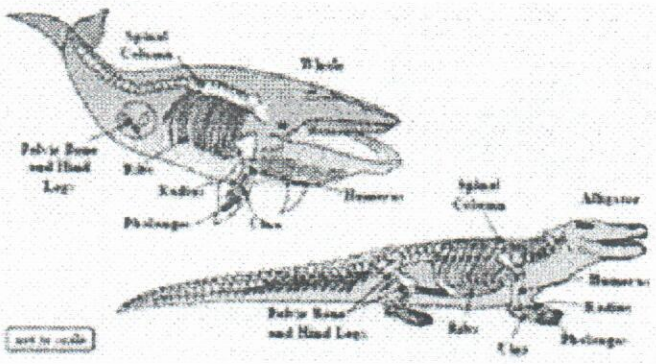
____ 36. A pattern in which species experience long, stable periods interrupted by brief periods of rapid evolutionary change is called
a. convergent evolution. b. coevolution. c. adaptive radiation. d. punctuated equilibrium.

____ 37. A single species that has evolved into several different forms that live in different ways has undergone
a. adaptive radiation. b. coevolution. c. punctuated equilibrium. d. mass extinction.

____ 38. A plant evolves a high level of poison that enables it to defend itself against insects. Soon an insect that prefers to eat this plant evolves an enzyme that breaks down the poison. This is an example of
a. convergent evolution. b. punctuated equilibrium. c. coevolution. d. adaptive radiation.

____ 39. Earth's early atmosphere was primarily composed of
a. oxygen and water vapor. b. carbon dioxide, water vapor, and nitrogen. c. oxygen and carbon monoxide. d. hydrogen cyanide and carbon monoxide.

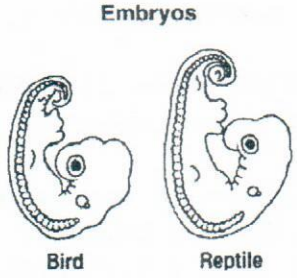
____ 40.
The scientific theory of evolution is supported by different types of evidence. The diagrams below show the skeletons of two different animal species. How does comparing the skeletons of these animals provide support for the scientific theory of evolution?



a. It provides information about the organisms' habitats b. It shows possible common ancestry between organisms. c. It provides information to determine the organisms' ages. d. It shows possible chromosomal similarities between organisms.

____ 41.

The diagram illustrates an embryonic stage of two organisms.

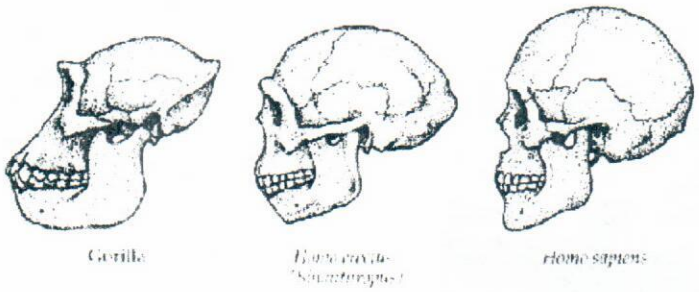


Which of the following can be determined by observing the embryos shown in the diagram?

a. The organisms share a common ancestry b. The organisms belong to the same genus. c. The organisms are native to the same geographic areas. d. The organisms will grow into anatomically similar adults.

____ 42.

Scientists have found evidence that about 2.4 million years ago a gene regulating jaw muscles mutated and may have led to the more graceful human jaw we see today. The diagram below shows the skulls of 3 hominid species.



Which statement below most closely explains the link between jaw size and hominid evolution?

a. The jaws of hominids evolved to be smaller and less protruding over time. b. The jaws of hominids evolved to be larger and more protruding over time. c. There appears to be no change in the jaws of hominids over time. d. The jaws of hominids changed over time due to a change in brain size.

____ 43. Which of these would have the least effect on natural selection in a subspecies of giraffes that is geographically isolated from other subspecies of giraffes?

a. available niches b. existing predators c. chromosome number d. available food resources

____ 44. Which of the following best illustrates natural selection?

a. An organism with favorable genetic variations will tend to survive and breed successfully b. A population monopolizes all of the resources in its habitat, forcing other species to migrate. c. A community whose members work together utilizing all existing resources and migratory routes. d. The largest organisms in a species receive the only breeding opportunities.

____ 45. A small population of chimpanzees lives in a habitat that undergoes no changes for a long period. How will genetic drift probably affect this population?

a. It will accelerate the appearance of new traits b. It will promote the survival of chimpanzees with beneficial traits. c. It will increase the number of alleles for specific traits. d. It will reduce genetic diversity.

____ 46. A small portion of the population that is geographically isolated from the rest of the population runs the risk of decreased.

a. genetic drift b. mutation rate c. natural selection d. genetic variation

____ 47. In his book On the Origin of the Species, Charles Darwin described how species change over time. Which of the following is NOT part of his observations that describes the mechanisms of natural selection?

a. Organisms produce more offspring than can survive. b. Disease and natural disaster will limit population growth. c. Species today descended with modifications from ancestral species. d. Organisms with advantages will survive and reproduce.

____ 48. One of the accepted scientific theories describing the origin of life on Earth is known as chemical evolution. According to this theory, which of the following events would need to occur first for life to evolve?

a. onset of photosynthesis b. origin of genetic material c. Synthesis of organic molecules
d. formation of the plasma membrane

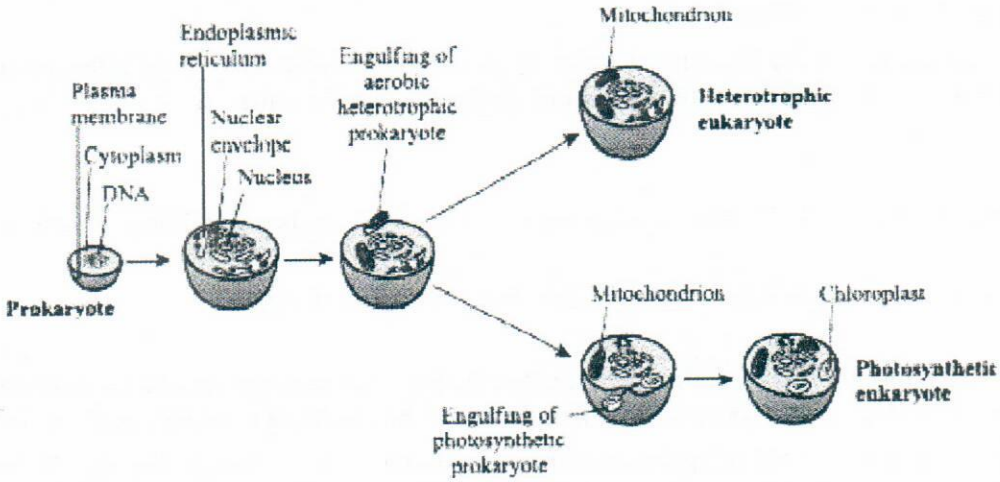
____ 49. Which types of organisms developed first due to the early environmental conditions on Earth?

a. prokaryotic and aerobic b. prokaryotic and anaerobic c. eukaryotic and aerobic d. eukaryotic and anaerobic

____ 50. The Miller-Urey experiment of 1953 was designed to test the hypothesis that lightning supplied the energy needed to turn atmospheric gases into organic molecules such as amino acids. Which of the following describes why the Miller-Urey theory is widely accepted today?

a. Amino acids spontaneously form from molecules in the atmosphere today b. Organic molecules are present today in extremely high concentrations c. The process of synthesizing organic molecules from a mixture of gases has been successfully modeled in the laboratory d. No other alternative hypotheses have been introduced

____ 51. The diagram below shows a proposed theory of the origin of eukaryotic cells, called endosymbiosis.



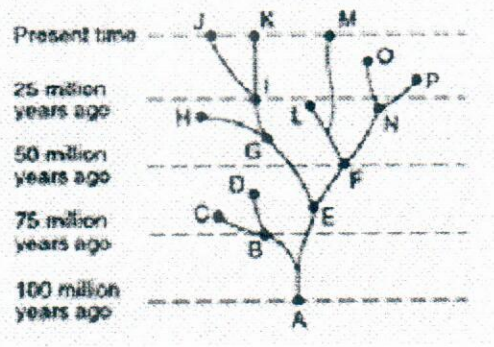
Which of the following explains why cells that contained mitochondria-like organelles had an evolutionary advantage?

a. They were able to photosynthesize b. They had more DNA c. They were able to make more use of available energy d. They were immune to bacterial invasion.

____ 52. Organisms classified as fungi have unique characteristics. Which of the following characteristics is found only in organisms classified in the kingdom fungi?

a. **single cells without a nucleus** b. **multicellular with chloroplasts** c. **multicellular filaments that absorb nutrients** d. **colonies of single, photosynthetic cells that reproduce asexually**

____ 53. The diagram below represents possible evolutionary pathways of certain organisms.



Which species is most closely related to species L?

a. **species E** b. **species F** c. **species G** d. **species I**

____ 54. Which kingdoms have photosynthetic organisms?

a. **fungi and plants** b. **fungi and protists** c. **protists and plants** d. **plants and animals**

____ 55. Some characteristics of a recently discovered organism are listed in the following table.

Organism Characteristics
Eukaryotic
Multicellular
Produces spores
Can reproduce sexually and asexually
Lacks chlorophyll
Non-motile

Based on the given characteristics, this organism would be classified in which kindgom?

a. **eubacteria** b. **fungi** c. **plantae** d. **protista**

____ 56. In 1990, Carl Woese introduced the three domain system for classifying living things, after the advancement of DNA analysis allowed for a comparison of species genetic code. Which of the following is the best explanation for why domains were added to the previous system of classification?

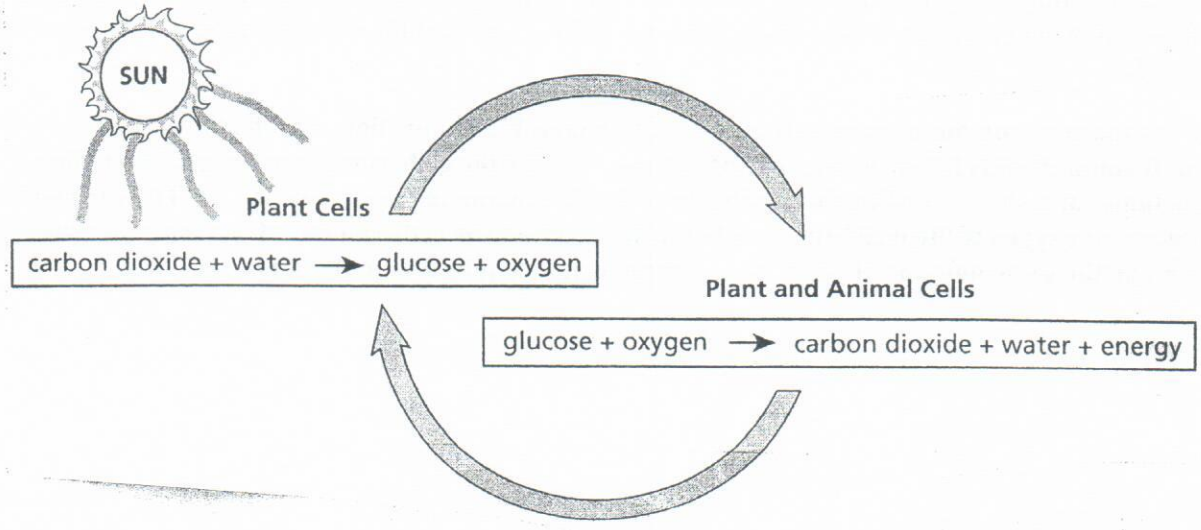
a. **The old system of classification was wrong and needed to be corrected.** b. **New species are evolving too quickly to keep up with the old system of classification** c. **Domains have always been included, they were just made official recently.** d. **Some organisms, which were previously characterized together, were determined to be genetically very different.**

____ 57. The energy in the food produced by autotrophs or taken into the body of heterotrophs must be changed into a form that cells can use. The energy-transferring molecule used by cells is _____.

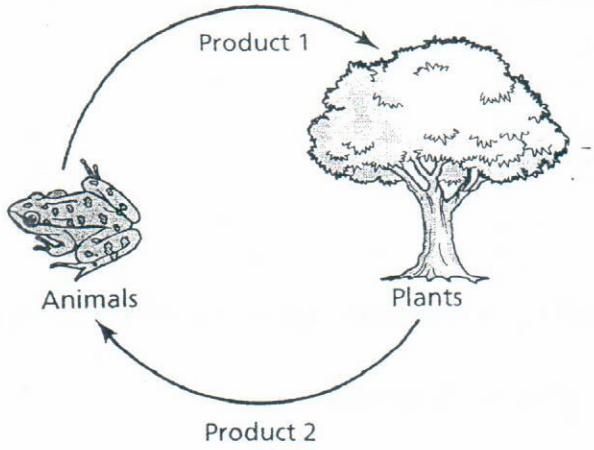
a. DNA b. ATP c. CO_2 d. RNA

____ 58. **What are the products of photosynthesis?**

a. energy and oxygen b. glucose and oxygen c. carbon dioxide and water d. glucose and carbon dioxide



____ 59. The diagram below shows products of cellular processes flowing to organisms that can use them.



According to the diagram, product 2 is _____

a. Oxygen produced by photosynthesis b. Oxygen produced by respiration c. Carbon dioxide produced by photosynthesis d. Carbon dioxide produced by respiration

____ 60. The equation below shows how ATP is produced.

ADP + P + Energy à ATP

a. As the building block of lipids b. As the building block of proteins c. As an energy source for most of diffusion d. As an energy source for most cellular processes

____ 61. A weightlifter is using heavy weights in short bursts for a competition. Because his muscle cells are not able to take in enough oxygen to make very much ATP the weightlifter begins to get fatigue in his muscles. Which of the following processes is most likely going on in the muscles of the weightlifter as he competes in his event?

a. **As the cells run out of oxygen they switch to anaerobic respiration, which allows the cell to make small amounts of ATP in the absence of oxygen.** b. **As the cells run out of oxygen, they die off gradually and the weightlifter's muscles have fewer contracting muscle cells.** c. **The cells will never run out of oxygen if the weightlifter is breathing.** d. **As the cells run out of oxygen, they will continue to make the same amount of ATP, since oxygen is not required to make ATP.**

____ 62. How are cellular respiration and photosynthesis related, in terms of energy?

a. **The energy captured in photosynthesis is used to power cellular respiration.**
b. **The energy transformed in cellular respiration is used to power photosynthesis**
c. **Photosynthesis and respiration perform the same task in terms of energy transformation.**
d. **Energy is not involved in either photosynthesis or cellular respiration.**

Ans: A

____ 63. The two main processes by which cells absorb, release, and store energy are

a. Fermentation and respiration b. Digestion and photosynthesis c. Photosynthesis and respiration
d. Aerobic and anaerobic respiration

____ 64. Study the equations below:

Equation 1

$$\text{Water} + \text{Carbon dioxide} \xrightarrow{\text{Energy}} \text{oxygen} + \text{Sugar}$$

Equation 2

$$\text{Sugar} + \text{Oxygen} \xrightarrow{\text{Energy}} \text{Water} + \text{Carbon dioxide}$$

According to these equations, which of the following is a reactant during respiration?

a. Water b. Sugar c. Energy d. Carbon dioxide

____ 65. Which of the following statements about photosynthesis and cellular respiration is true?

a. Photosynthesis produces more oxygen than is typically needed for respiration. b. Cellular respiration produces more carbon dioxide than is typically needed for photosynthesis c. The amount of oxygen produced by photosynthesis is typically equal to the amount of carbon dioxide produced by cellular respiration d. Cellular respiration produces less carbon dioxide than is typically needed for photosynthesis

____ 66. Because fermentation takes place in the absence of oxygen, it is said to be _____.

a. Aerobic b. Anaerobic c. Cyclic d. Oxygen-rich

____ 67. The process carried out by yeast that causes bread dough to rise is _____.

a. Alcoholic fermentation b. Lactic acid fermentation c. Cellular respiration d. Yeast mitosis

____ 68. Monecious flowers contain both female and male part. The _____and _____make up the stamen.

a. Stigma ,sepal b. Pollen, anther c. Anther, filament d. Pollen , filament

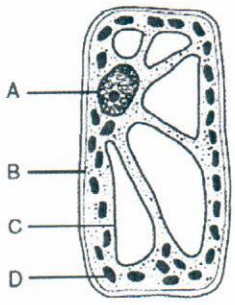
____ 69. The carpels are part of the female reproductive structures that form the _____.

a. Style b. Pistil c. Filament d. Stigma

____ 70. The _____ are leaf like structures that surround and protect the flower before it blooms.

a. Petals b. Sepals c. Pistil d. Receptacle

____ 71. The diagram below represents a cell of a green plant.



Solar energy is used to produce energy-rich compounds in which structure?

a. **A** b. **B** c. **C** d. **D**

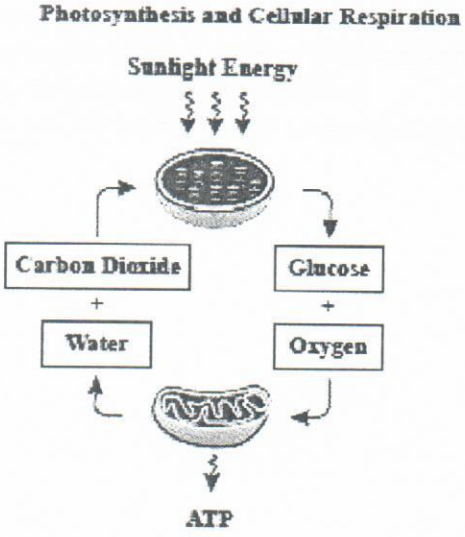
____ 72. **Which characteristic do most plants have in common?**

a. **they are unicellular** b. **they are prokaryotic** c. **they produce seeds** d. **they are autotrophic**

____ 73. **What factors limit the size of bryophytes?**

a. **they produce seeds.** b. **They lack vascular tissue.** c. **They produce cones.** d. **They only live in water.**

____ 74. The diagram below shows the relationship between photosynthesis and cellular respiration and the organelles in which they occur.



Which statement describes how photosynthesis and cellular respiration are interrelated?

a. **Oxygen is produced during cellular respiration and stored during photosynthesis.** b. **Carbon dioxide and water released by cellular respiration are used in photosynthesis.** c. **Photosynthesis releases the energy that is stored during the process of cellular respiration.** d. **Glucose is used during cellular respiration to produce food that is broken down during photosynthesis.**

____ 75. **Which seedless vascular plants reproduce by spores?**

a. **Ferns** b. **Algae** c. **Pines** d. **Roses**

____ 76. **What are key features of angiosperms?**

a. **spores** b. **pollen tube and cones** c. **ovaries, flowers, and fruits** d. **ovaries, spores and seeds.**

____ 77. **The structures on a pine tree that contain the gametophytes are called_____.**

a. **flowers** b. **sporangia** c. **sori** d. **cones**

____ 78. Two different species of bacteria are examined. Scientists find that species X always produces CO_2 and H_2O during cellular respiration. Species Y always produces ethyl alcohol and CO_2. Which conclusion can be made from these observations?

a. **Only species Y is aerobic.**

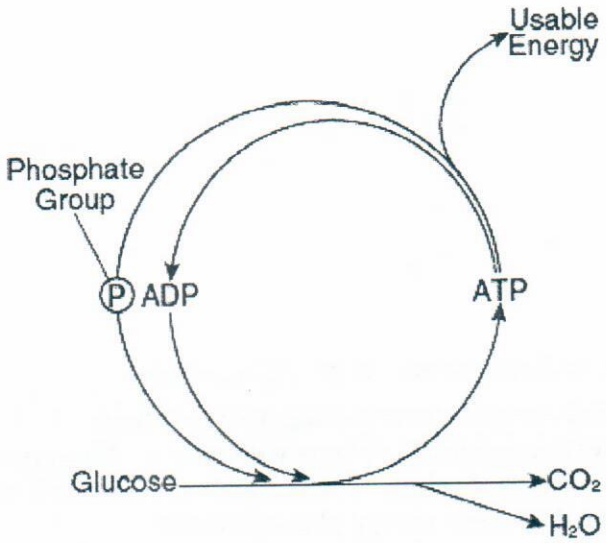
b. **Only species Y is anaerobic.**

c. **Both species X and Y are aerobic.**

d. **Both species X and Y are anaerobic.**

____ 79. A weightlifter is using heavy weights in short bursts for a competition. Because his muscle cells are not able to take in enough oxygen to make very much ATP the weightlifter begins to get fatigue in his muscles. Which of the following processes is most likely going on in the muscles of the weightlifter as he competes in his event?

a. **As the cells run out of oxygen they switch to anaerobic respiration, which allows the cell to make small amounts of ATP in the absence of oxygen.** b. **As the cells run out of oxygen, they die off gradually and the weightlifter's muscles have fewer contracting muscle cells.** c. **The cells will never run out of oxygen if the weightlifter is breathing.** d. **As the cells run out of oxygen, they will continue to make the same amount of ATP, since oxygen is not required to make ATP.**



____ 80. **The picture models a cellular metabolic process. The *main* purpose of this process is to produce —**

a. **CO_2 and H_2O** b. **ADP** c. **Phosphate groups** d. **ATP/ useable energy**

____ 81. Which ***most accurately*** describes the difference in ATP production between aerobic respiration and anaerobic respiration?

a. Aerobic respiration produces more ATP than anaerobic respiration. b. Anaerobic respiration produces more ATP than aerobic respiration. c. Only anaerobic respiration produces measurable amounts of ATP. d. Anaerobic and aerobic respiration produce the same amount of ATP.

____ 82. Which organism is ***most likely*** to use anaerobic respiration?

a. bird b. moss c. tree d. yeast

____ 83. **The above diagrams represent major cell structures found in plant and animal cells.**
Vacuole(A) cell membrane(B) nucleus(C) mitochondrion(D) chloroplast(E)

Which of these structures is the site of aerobic respiration?

a. **Vacuole** b. **Nucleus** c. **Chloroplast** d. **Mitochondrion**

____ 84. Cellular respiration releases energy by breaking down
a. food molecules. b. ATP. c. carbon dioxide. d. water.

____ 85. Unlike photosynthesis, cellular respiration occurs in
a. animal cells only. b. plant cells only. c. prokaryotic cells only. d. all living cells.

____ 86. Which of the following is the correct sequence of events in cellular respiration in higher order eukaryotic cells?
a. glycolysis → fermentation → Krebs cycle b. Krebs cycle → electron transport → glycolysis
c. glycolysis → Krebs cycle → electron transport d. Krebs cycle → glycolysis → electron transport

____ 87. The products of photosynthesis are the
a. products of cellular respiration. b. reactants of cellular respiration. c. products of glycolysis.
d. reactants of fermentation.