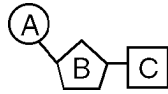


Biology 3rd Edition Sample Questions

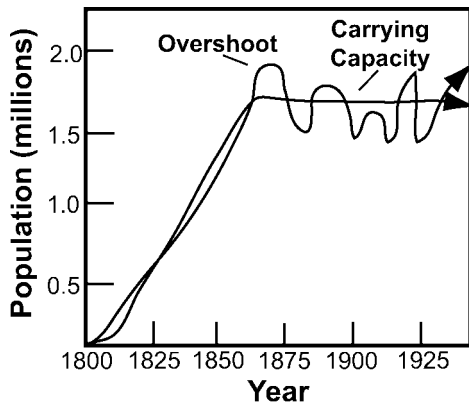
Name: _____

- 1) Which is the correct identification of the parts of the DNA nucleotide in the diagram below?



- A) $A = \text{uracil}, B = \text{deoxyribose}, C = \text{thymine}$
 B) $A = \text{phosphate}, B = \text{deoxyribose}, C = \text{thymine}$
 C) $A = \text{phosphate}, B = \text{ribose}, C = \text{uracil}$
 D) $A = \text{thymine}, B = \text{ribose}, C = \text{uracil}$
- 2) What is the source of food for offspring developing in the pouch of a marsupial?
 A) Yolk stored in the egg
 B) Placenta and an umbilical cord
 C) Milk from mammary glands
 D) Unused sperm cells
- 3) Compare and contrast cell division in plant cells and animal cells.

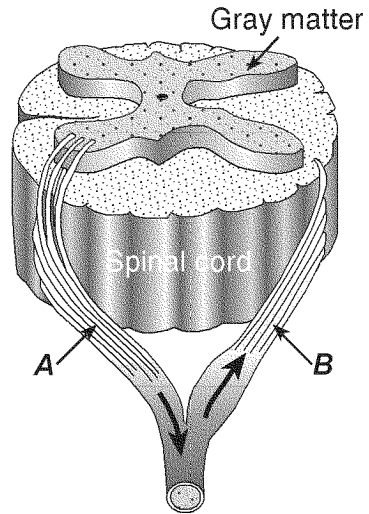
4)



Based on the graph shown, when did the population reach its carrying capacity?

- A) About 1850
 B) About 1845
 C) About 1875
 D) About 1865
- 5) Which of the following processes takes place in structures known as grana?
 A) $2\text{ATP} + \text{C}_6\text{H}_{12}\text{O}_6 \xrightarrow{\text{enzymes}} 4\text{ATP} + 2 \text{ lactic acid}$
 B) $\text{C}_{12}\text{H}_{22}\text{O}_{11} + \text{H}_2\text{O} \xrightarrow{\text{enzymes}} \text{C}_6\text{H}_{12}\text{O}_6 + \text{C}_6\text{H}_{12}\text{O}_6$
 C) $6\text{CO}_2 + 12\text{H}_2\text{O} \xrightarrow[\text{chlorophyll}]{\text{light, enzymes}} \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2 + 6\text{H}_2\text{O}$

- 6) The following diagram represents a part of the central nervous system.



Identify the labeled nerves, A and B, in the given diagram.

- 7) When a robin tries to pull an earthworm out of the ground, the worm uses its bristles to hold on tight to the walls of its home. Sometimes the worm holds on so tight and the robin pulls so hard that the worm breaks apart. The robin keeps the front end and the hind end wriggles back into its tunnel. If the bird only pulled off the first seven or eight segments of the worm's body, a new head will grow. If the worm is pulled in half, the tail end will die or produce another tail. The double-tailed worm will starve to death. Only a head end can regrow a tail to become a complete worm again.

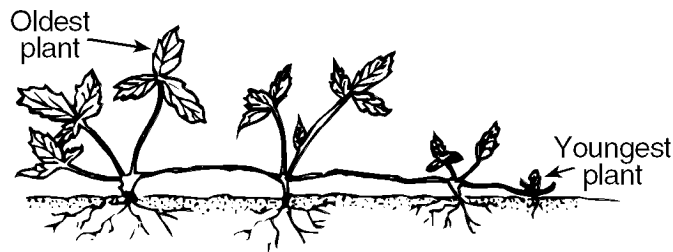
All of the following are true regarding regeneration in earthworms *except*

- A) each earthworm will have exactly half the number of the original chromosomes.
 B) stem cells in each earthworm segment divide and differentiate to provide the required missing tissue.
 C) regenerated earthworms are genetically identical to its separated segment.
 D) earthworms are able to regenerate because their body systems are relatively simple compared to more complex organisms that cannot regenerate.

- 18) Which organism ingests food by engulfing it with pseudopods?
 A) Earthworm C) Amoeba
 B) Grasshopper D) Paramecium
- 19) Explain how green plants capture light energy to make glucose.

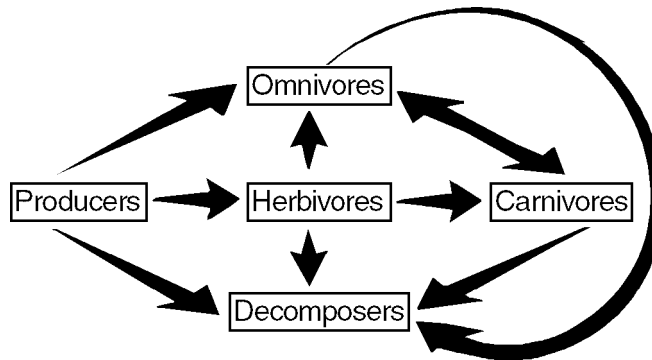
- 20) Which components of a geranium plant have functions similar to those of the arteries and veins of humans?
 A) Cambium and epidermis
 B) Chloroplasts and guard cells
 C) Xylem and phloem
 D) Palisade and spongy layers
- 21) Which type of cell does HIV destroy?
 A) B-Cells C) Antibodies
 B) Killer H-cells D) Helper T-cells

- 22) The diagram below illustrates which type of reproduction?



- A) Vegetative propagation C) Zygote formation
 B) Cleavage D) Fission

23)



Which diagram *best* represents the usual relationships of biomass in a stable community?

KEY:

C - carnivores
H - herbivores
P - producers

- A)  B)  C)  D) 