

Organization of Living Things Review

Name _____

1. Letter the following with A being the least complex to E being the most complex (1 point)

_____ Organ System

_____ Tissue

_____ Organ

_____ Cell

_____ Organism

_____ 2. All living things

a. need to take in materials to live

b. need to get rid of waste

c. are made of cells

d. all of the above

3. For each organism below put a U on the blank for unicellular and an M on the blank for multicellular (1/2 point each blank, 3 points total)

_____ Paramecia

_____ Amoeba

_____ Bacteria

_____ Pine tree

_____ Moss

_____ Frog

Match each level of organization below with its description

_____ 4. Cell

a. group of different organs working together

_____ 5. Tissue

b. group of different tissues working together

_____ 6. Organ

c. smallest unit of life

_____ 7. Organ System

d. group of one type of cells working together

_____ 8. The growth of a Maple tree is due to

a. its cells getting larger

b. the number of cells increasing

c. the cells changing in length

d. both a and b

_____ 9. Materials pass enter cells by the process of

a. photosynthesis

c. metabolism

b. diffusion

d. homeostasis

- _____ 10. In a unicellular organism cell division results in
- a. a larger organism
 - b. reproduction
- _____ 11. The size of cells
- a. is larger in a large organism
 - b. is similar in all organisms
 - c. is smaller in a small organism
 - d. determines the size of the organism
- _____ 12. Which statement about multicellular organisms is NOT correct?
- a. organs and tissues supply cells with the materials needed to live
 - b. cells are specialized to do certain jobs
 - c. have cells that can work without being part of the organism
 - d. all multicellular organisms have tissues that do similar jobs
- _____ 13. When a unicellular organism completes cell division
- a. a larger organism results
 - b. a second identical organism is formed
 - c. a second but different organism is formed
 - d. the old cell dies and the new one takes its place
- _____ 14. What causes the growth of a multicellular organism?
- a. increase in cell size
 - b. increase in cell number
 - c. increase in both cell number and size
 - d. replacement of worn out cells
- _____ 15. In a multicellular organism
- a. there are tissues with different structures and functions
 - b. there is only one type of tissue that has different functions
 - c. there are tissues with different structures but they all function the same way
 - d. there are no tissues, only organs and systems

A group of students did an experiment to observe movement of materials through the membrane of an egg. After removing the shells of 2 eggs using vinegar they placed the eggs into salt water. One egg was placed into 5% salt solution and the other into a 15% salt solution.

- _____ 16. Which solution had a greater effect on the mass of the eggs?
- a. Solution A
 - b. Solution B
 - c. both solutions had equal effect
 - d. there is not enough data to determine the effect

- _____ 17. Which statement correctly explains the movement of materials through the membrane of the egg.
- water moved by osmosis from a higher concentration inside the egg to a lower concentration outside the egg
 - water moved by osmosis from a lower concentration outside the egg to a higher concentration inside the egg
 - salt diffused from a higher concentration outside the egg to a lower concentration inside the egg.
 - salt diffused from a higher concentration inside the egg to a lower concentration outside the egg

18. You are stranded on a desert island, with nothing but a cell phone. You know that help will arrive within a couple days, but you are dehydrated and need to quench your thirst. You are surrounded by the ocean on all sides; should you drink the salt water? Why or why not?

- Draw a MODEL at the CELLULAR level that supports your answer.
- LABEL your MODEL so a non-science person can understand it.
- Write an explanation of no more than 3 sentences that answers the question.