

## SEMESTER 1 EXAM STUDY GUIDE- 7TH GRADE LIFE SCIENCE

### ASSESSING THE FOLLOWING:

MS-LS1.1 Living things are made of cells.

MS-LS1.2 Functions of cells and their parts.

MS-LS1.3 The body is a system of interacting subsystems.

MS-LS1.8 Sensory receptors respond to stimuli

MS-LS3.1 Genetic mutations can be harmful, beneficial, or neutral

MS-LS3.2 Describe how asexual reproduction produces identical offspring and sexual produces genetic variation.

1) (1.1)The smallest part of a living thing that does its life functions is a \_\_\_\_\_.

2) (1.1) Cells come from \_\_\_\_\_

3) (1.3)Living things remove toxic substances from their bodies in a process called \_\_\_\_\_.

4) (1.3) What is the process in which organisms take in food for health and growth and development? \_\_\_\_\_

5) (1.1)Which of the following is a characteristic of living things?

growth   reproduction   circulation   respiration

6) (1.1)What do all living organisms have in common? They are all made of \_\_\_\_\_.

7) (1.1)Which of the following is not a part of cell theory?

a)All living things are made of one or more cells.

b)The cell is the basic unit of all living things.

c)All cells look the same.

d)All cells come from other preexisting cells.

- 8) (1.8) Wanting to dance when certain songs come on is a \_\_\_\_\_.
- 9) (1.8) Which of the following is a way a living organism senses its surroundings?  
Hearing      touching      seeing      hearing      laughing
- 10) (1.3) Organisms respire in order to use oxygen to \_\_\_\_\_.
- 11) (1.2) Describes the purpose of chromosomes in a cell? \_\_\_\_\_.
- 12) (1.2) Chromosomes are located in which organelle?  
\_\_\_\_\_
- 13) (3.2) Each body cell of a seastar contains 82 chromosomes. How many chromosomes are contained in a seastar sex cell? \_\_\_\_\_
- 14) (1.3) Which of the following parts of the human body is most complex?  
Heart                      muscle cell                      digestive system                      epithelial tissue
- 15) (1.3) Lists the levels of organization in the human body from simplest to most complex?  
\_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_      \_\_\_\_\_
- 16) (1.3) When different gases are exchanged in the lungs and then transported throughout the body, the systems working together are the \_\_\_\_\_ and \_\_\_\_\_.
- 17) (1.3) Which three systems of a rabbit's body must be working together for the rabbit to run away from a fox? \_\_\_\_\_
- 18) (3.2) Pairs of thread-like molecules, which live in the cell's nucleus and carries heredity information are called \_\_\_\_\_.

19) (3.2) Made of DNA this the the basic physical and functional unit of heredity \_\_\_\_\_

20) (3.2) Fully grown parent cells split into two halves resulting in two daughter cells with the exact DNA as a parent in \_\_\_\_\_.

21) (3.2) A parent cell breaks into pieces and each piece becomes a new offspring with \_\_\_\_\_.

22) (3.1) A **Mutation** occurs when a DNA gene is damaged or changed in such a way as to alter the genetic message carried by that gene. The effect on an organism can be

Changes in \_\_\_\_\_

Changes in \_\_\_\_\_

Changes in \_\_\_\_\_

23) (3.2) What are some characteristics of asexual reproduction?

24) (3.2) Like other conifers, redwood trees have male and female cones that rely on wind for pollination. New trees also sprout from shallow roots which generate trees identical to the parent. What type of reproduction do redwoods use? \_\_\_\_\_

25) (3.2) Sexual reproduction requires \_\_\_\_\_ parents and offspring have \_\_\_\_\_ DNA.  
Asexual reproduction requires \_\_\_\_\_ parents and offspring have \_\_\_\_\_ DNA.

26) (3.1) Name some diseases is caused by a genetic mutation?

27) (1.2) Which cell organelles are only found in plant cells? \_\_\_\_\_, \_\_\_\_\_

28) (3.1) A mutation that can change future generations must take place in \_\_\_\_\_ cells.

29) (3.1) A mutation in the hemoglobin gene causes sickle-cell hemoglobin. People with sickle-cell hemoglobin are immune to malaria. If a population is exposed to malaria, how will frequency of the mutated sickle-cell hemoglobin? It will \_\_\_\_\_ because

30) (1.2) Organelles are structures within the cell that perform important functions. Which of the following correctly matches the organelle with the relationship to the whole cell?

\_\_\_\_\_ - \_\_\_\_\_

a = All the offspring will exhibit the dominant trait.

b = All the offspring will exhibit the recessive trait.

c = The recessive trait will show up in about 50% of the offspring.

d = The dominant trait will show up in about 75% of the offspring.

What will be the result if:

31. Bb mates with bb?

32. BB mates with bb?

33. bb mates with bb?

34. Bb mates with Bb?

35. Mrs. Russell had surgery on her gallbladder and her gastroenterologist checked her digestive tract. Which of the following would he NOT have checked because it is not part of the digestive system?

Small intestines   esophagus   pancreas   lungs   kidneys