



Biology EOCEP (Old Standards) Quiz

Cells - (B-2.1) The Three Tenets Cell Theory, (B-2.2) Organelles Structures And Functions, (B-2.3) Prokaryotic And Eukaryotic Cells, (B-2.4) Process Of Cell Differentiation, (B-2.5) Active, Passive, Facilitated Transport

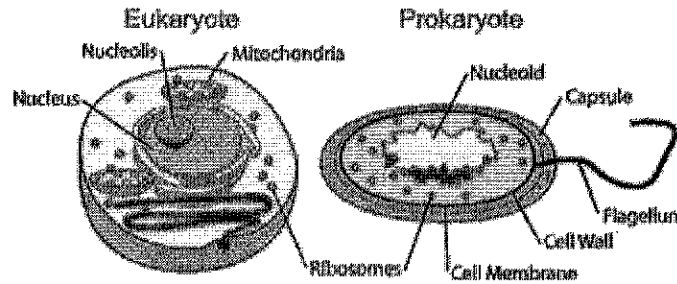
Student Name: _____

Date: _____

Teacher Name: Jonathan Bartal

Score: _____

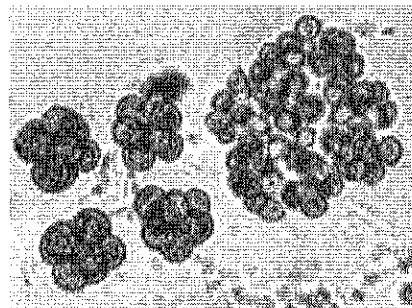
1)



According to cell theory,

- A) all multicellular organisms are composed of prokaryotic cells.
- B) only cells like the eukaryote can carry out the functions of life.
- C) single celled organisms like these are only capable of asexual reproduction.
- D) even primitive cells, like the prokaryote, can carry out the functions of life.

2)



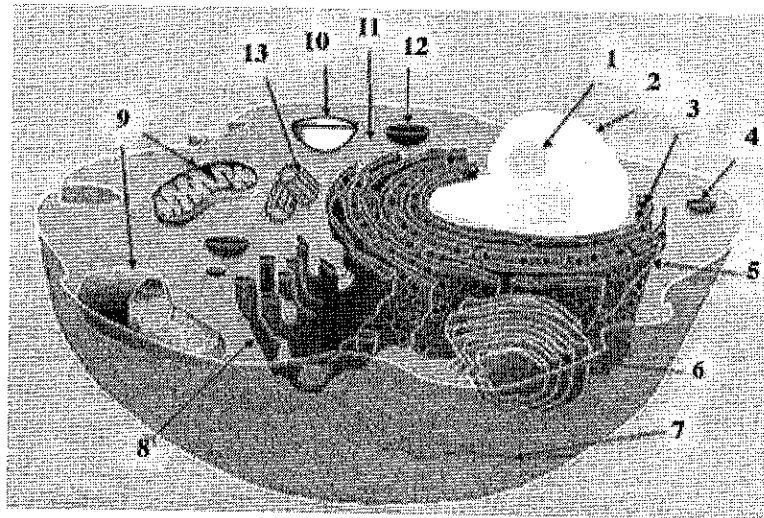
Cara and Chuck were looking at pond water through a microscope. They saw this image. Cara wondered what it was. Chuck said it had to be a living thing because it was

- A) green.
- B) moving.
- C) made of cells.
- D) round throughout.

3) _____ produce proteins by following coded instructions that come from the nucleus of the cell.

- A) Actins
- B) Flagella
- C) Microtubules
- D) Ribosomes

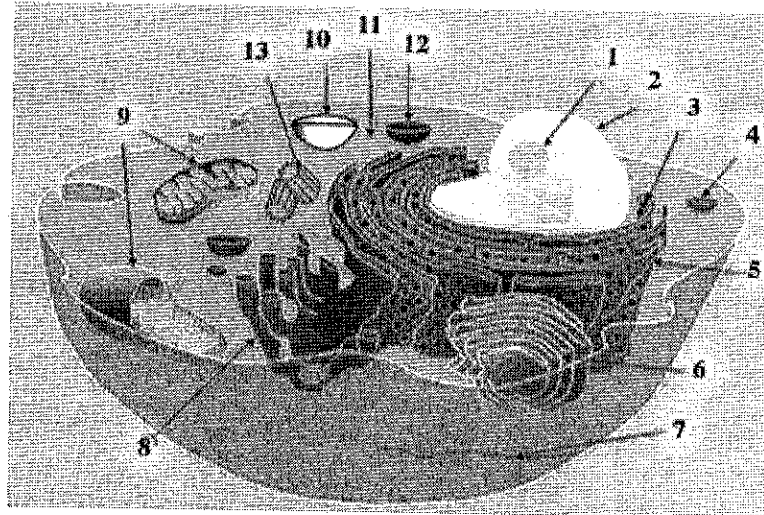
4)



Which numbered organelle produces ATP during cell respiration?

- A) 1
- B) 7
- C) 9
- D) 13

5)



Based on physical features, this cell is most likely a(n) _____ cell.

- A) eukaryotic plant
- B) eukaryotic animal
- C) prokaryotic fungus
- D) prokaryotic bacterial

6) Bacteria cells have no

- A) nuclei.
- B) cell membrane.
- C) reproductive means.
- D) method of locomotion.

7) Which structure or organelle is found in both prokaryotic and eukaryotic cells?

- A) ribosomes
 B) chloroplasts
 C) mitochondria
 D) endoplasmic reticulum

8) A student examines a cell under the microscope and determines that it is a eukaryote. All but one structure could help the student come to this conclusion. Which structure is of no help?

- A) cell wall
 B) Golgi body
 C) mitochondrion
 D) membrane-bound nucleus

9) Place the following levels of biological organization in the proper order, from smallest to largest.

1) Macromolecule

2) Tissue

3) Organ System

4) Organ

5) Cell

- A) 1, 5, 4, 3, 2
 B) 1, 2, 5, 4, 3
 C) 5, 1, 2, 4, 3
 D) 1, 5, 2, 4, 3

10) The human heart is an organ that is made up of cells. Not all of the cells that make up the heart are identical, however. What name is given to a group of similar cells that perform a special function and together make up an organ?

- A) embryo
 B) organelle
 C) system
 D) tissue

11) The cellular process in which materials are moved across a membrane from an area of low concentration to an area of high concentration is called

- A) osmosis.
 B) simple diffusion.
 C) active transport.
 D) passive transport.

12) Gases such as oxygen and carbon dioxide cross the plasma membrane by

- A) special gas transport proteins.
 B) osmosis through the lipid bilayer.
 C) active transport through protein channels.
 D) passive diffusion through the lipid bilayer.

13) What would happen to a freshwater protozoan if removed from its normal habitat and placed into a saltwater pool?

- A) loss of water through osmosis
 B) gain of water through osmosis
 C) loss of water through active transport
 D) gain of water through active transport

14) A red blood cell will shrink in size when placed in a more concentrated salt solution because of the passive process called

- A) biosis.
 B) endocytosis.
 C) mitosis.
 D) osmosis.

15) While cleaning a saltwater aquarium, students placed a family of fiddler crabs from the saltwater aquarium into a container of distilled water. What effect will this have on the crabs?

- A) The crabs will not be affected at all.
- B) The crabs will excrete excess salts left in their systems.
- C) The crabs will die if left in the freshwater, their cells will burst.
- D) The crabs will die if left in the freshwater, their cells will shrink.

16) _____ is the process of taking material into the cell by means of infoldings of the cell membrane.

- A) Diffusion
- B) Endocytosis
- C) Exocytosis
- D) Infiltration

17) Which process moves water molecules across the membrane of a cell?

- A) diffusion
- B) endocytosis
- C) exocytosis
- D) osmosis

18) How will the movement of water affect a cell if it is transferred from a hypotonic solution to a hypertonic solution?

- A) The cell wall will dissolve.
- B) The cell will be unaffected.
- C) The cell will shrink in size.
- D) The size will increase and then reduce.

19) During _____, vesicles in the cell fuse with the cell membrane, releasing their contents to the outside.

- A) diffusion
- B) endocytosis
- C) exocytosis
- D) pinocytosis

20) The solution inside a plant cell is approximately a 1% saline solution. In a 25% NaCl solution, the cytoplasm of a plant cell will

- A) remain the same.
- B) swell and burst from the cell membrane.
- C) shrink and draw away from the cell wall.
- D) enlarge and cause expansion of the cell wall.