WAYGROUND formerly Quizizz **Worksheets**

Name

Class

Date

Exam 1: Cytology and Basic Chemistry

Total questions: 53

Worksheet time: 27mins

Instructor name: Shane McCaslin

1. Cytology is the study of

a) Mr. Johnson
b) organs
c) tissues
d) cells

2. what are the 3 basic parts of a human cell

a) mitochondria, ribosomes, nucleus
b) plasma membrane, cytoplasm, and nucleus
c) nucleus, lysosomes, and desmosomes
d) reticularis, follicles, and plasma membrane

3. what are the main functions of the cell membrane

a) controls what enters and exits cell
b) Is a contact surface
c) acts as a barrier between ICF and ECF
d) is the site of many chemical reactions

4. what does the cell membrane consist of

a) membrane proteins
b) lysosomes
c) Mr. Scoggins
d) phospholipid bilayer

5. how are integral proteins attached to the membrane

a) they are loosely attached
b) they are firmly embedded
c) they aren't attached at all, they float
d) there are no integral proteins on a membrane

6. how are peripheral proteins attached

a) they are only attached inside the cell
b) they are loosely attached either inside or outside the cell
c) they aren't attached, they float
d) they are transmembrane and are firmly embedded

7. how is a tight junction formed

a) transmembrane proteins come together to form a tunnel
b) linker proteins interlock and form a "zipper"
c) integral proteins on adjacent cells fuse together

8. what is a gap junction

a) transmembrane proteins that form tunnels
b) linker proteins that interlock like a zipper
c) integral proteins the fuse

9. what are gap junctions used for

a) they are used to spread cells
b) they spread ions, simple sugars, or other small molecules
c) they are used to spread phospholipids
d) they are used for disaccharides

10. plasma membranes are

a) big
b) permeable
c) thicccc
d) selectively permeable

11. what are the 2 major types of transport

a) intracellular transport
b) cellular transport
c) passive transport
d) active transport

12. passive transport requires energy

a) true
b) false

13. what are the 2 types of passive transport

a) primary active transport
b) vesicular transport
c) filtration
d) diffusion

14. what occurs in simple diffusion

a) substances are transported by carriers
b) the solvent moves to an area of high solute concentration from a lower one
c) substances are transported by channels
d) substances diffuse directly through bilayer

15. what is usually being transported in simple diffusion

a) glucose, amino acids, and ions
b) oxygen, carbon dioxide, fat-soluble vitamins, steroid hormones
c) solvents like water

16. what occurs in facilitated diffusion

a) substances are transported by channels or carriers down their gradient
b) solvents move from an area of low solute concentration to high
c) substances diffuse straight through bilayer

17. how do leakage channels work

a) they are always open
b) they are controlled by chemical and electrical signals

18. what occurs during osmosis

a) a substance uses carriers or channels to move down gradient
b) a solvent, like water, will move across its gradient
c) a substance diffuses across the membrane

19. what is tonicity

a) lysosomal action
b) ability of a solution to change shape of cells by altering amount of internal water
c) enzyme action
d) the ability to be toxic

20. what is an isotonic solution

a) inside and outside of cell have some osmolarity
b) lower solute concentration outside of cell so water flows in
c) higher solute concentration outside than inside cell, so water flows out

21. what is a hypertonic solution

a) higher solute concentration outside of the cell, so water flows out
b) the same concentration inside and outside the cell
c) lower solute concentration outside of the cell, so water flows in

22. what is a hypotonic solution

a) the same concentration inside and outside the cell
b) lower solute concentration inside the cell, so water flows in
c) higher solute concentration outside the cell, so water flows out

23. what is lysing

a) cell lysterine
b) cell shrinking
c) cell celling
d) cell bursting

24. active processes require ATP

a) false
b) true

25. why is active transport used

a) solute is too large for channels
b) solute cannot move down gradient
c) solute is not lipid soluble
d) solute can move down gradient

26. vesicular transport is the transport of large things within vesicles

a) true
b) false

27. endocytosis is

a) when the vesicle merges with plasma membrane to get the substance out

b) when the cell membrane surrounds something and brings it into cell

28. phagocytosis is

a) cell drinking

b) cell eating

29. pinocytosis is

a) cell eating

b) cell drinking

30. what is exocytosis

a) the cell membrane surrounds something and brings it in

b) the vesicle merges with the plasma membrane to transport the substance out

31. what is matter

a) anything that has mass and takes up space

b) anything that has mass but doesn't take up space

c) anything that has no mass and floats through the air

d) anything that you cannot see

32. what is the definition of energy

a) what you get from redbull

b) anything that has mass or takes up space

c) the capacity to lay in bed and do nothing

d) the capacity to do work or put matter into motion

33. what are the smallest particles of an element

a) carbon

b) atoms

c) cells

d) elements

34. what is the difference between a cation and an anion

a) cation has a neutral charge, anion has a negative charge
b) cation has a negative charge, anion has a positive charge
c) nothing they are exactly the same
d) cation has a positive charge, anion has a negative charge

35. what is the difference between atomic number and mass

a) atomic number is the number of electrons, atomic mass is protons plus neutrons
b) atomic number is the number of neutrons, atomic mass is electrons plus neutrons
c) atomic number is the number of protons, atomic mass is protons plus electrons
d) atomic number is the number of protons, atomic mass is protons plus neutrons

36. what are biological catalysts

a) nothing they're made up
b) enzymes
c) elements
d) speed up the rate of reaction

37. as temperature increases, reaction rate

a) explodes
b) decreases
c) stays the same
d) increases

38. as concentration/pressure increases, reaction rate

a) stays the same
b) decreases
c) increases
d) explodes

39. what is the primary way to increase reaction time

a) catalysts because they're never used up
b) catalysts because they reproduce fast
c) water
d) not catalysts they're fake

40. as particle size increases, reaction rate

a) decreases
b) doubles
c) increases
d) stays the same

41. what are 2 types of covalent bonds

a) kinetic and potential
b) ionic and covalent
c) atoms and bonds
d) polar and nonpolar

42. what occurs in a covalent bond

a) an equal (polar) or unequal (nonpolar) share of electrons
b) an equal (polar) or unequal (covalent) share of electrons
c) an equal (ionic) or unequal (polar) share of electrons
d) an equal (nonpolar) or unequal (polar) share of electrons

43. what is the difference between a molecule and a compound

a) a compound is the general term for two or more atoms bonded together. a molecule is a specific molecule that has two or more different kinds of atoms bonded together
b) they are the same thing
c) a molecule is a specific compound that has two or more different kinds of atoms bonded together. a compound is the general term for two or more atoms bonded together
d) a molecule is the general term for two or more atoms bonded together. a compound is a specific molecule that has two or more different kinds of atoms bonded together

44. what occurs in ionic bonds

a) two atoms bond together
b) one atom gives up its electrons so the other can gain electrons so they can complete their shells
c) one atoms gives up electrons so another can receive them and they become attracted to each other
d) an atom gives up electrons to another and becomes a cation, the one that receives them becomes an anion

45. which reactions involve atoms or molecules combining to form larger, more complex molecule building

a) catabolic or synthesis
b) anabolic or synthesis
c) anabolic or decomposition
d) catabolic or decomposition

46. what occurs in a catabolic reaction

a) explosion of molecules
b) synthesis of molecules
c) building of molecules
d) breaking down of molecules

47. explain hydrolysis versus dehydration synthesis

a) they are the same thing
b) in hydrolysis water is released so two monomers can become a polymer. in dehydration synthesis water comes into the formula and makes one monomer into two polymers
c) in dehydration synthesis water comes in to rehydrate the monomers. in hydrolysis water is leaving the cell
d) in dehydration synthesis water is released so two monomers can become a polymer. in hydrolysis water comes into the formula and makes one monomer into two polymers

48. what is the universal solvent

a) beer
b) water
c) sugar
d) salt

49. what mixtures are homogeneous (particles evenly distributed throughout) versus heterogeneous (particles are not evenly distributed)

a) solution-homogeneous, colloid-heterogeneous, suspension-heterogeneous
b) solution-homogeneous, colloid-homogeneous, suspension-heterogeneous
c) solution-heterogeneous, colloid-heterogeneous, suspension-homogeneous
d) solution-heterogenous, colloid-homogeneous, suspension-homogenous

50. give the properties of a colloid

a) have a milky/cloudy look
b) is perfectly transparent
c) solvent and solute eventually separate from each other
d) have large particles that do not settle out

51. give the properties of a suspension

a) contain large particles that settle out
b) contain small particles that dissolve
c) blood is an example
d) contain large particles that never settle out

52. what is an isotope

a) structural variations of different elements, but with the same number of neutrons
b) structural variations of different elements, but with the same number of protons
c) structural variations of the same element, but with different numbers of protons
d) structural variations of the same element, but with different numbers of neutrons

53. in order, what is the weakest to strongest chemical bond

a) hydrogen, ionic, covalent
b) covalent, ionic, hydrogen
c) hydrogen, covalent, ionic
d) ionic, hydrogen, covalent

Answer Keys

1. d) cells
2. b) plasma membrane, cytoplasm, and nucleus
3. c) acts as a barrier between ICF and ECF , Is a b) contact surface , controls a) what enters and exits cell , is d) site ma ch rea
4. d) phospholipid bilayer , membrane a) proteins
5. b) they are firmly embedded
6. b) they are loosely attached either inside or outside the cell
7. c) integral proteins on adjacent cells fuse together
8. a) transmembrane proteins that form tunnels
9. b) they spread ions, simple sugars, or other small molecules
10. d) selectively permeable
11. d) active transport , passive c) transport
12. b) false
13. d) diffusion , c) filtration
14. d) substances diffuse directly through bilayer
15. b) oxygen, carbon dioxide, fat-soluble vitamins, steroid hormones
16. a) substances are transported by channels or carriers down their gradient
17. a) they are always open
18. b) a solvent, like water, will move across its gradient
19. b) ability of a solution to change shape of cells by altering amount of internal water
20. a) inside and outside of cell have some osmolarity
21. a) higher solute concentration outside of the cell, so water flows out
22. b) lower solute concentration inside the cell, so water flows in
23. d) cell bursting
24. b) true
25. a) solute is too large , solute b) cannot move , solute c) is not
26. a) true
27. b) when the cell membrane surrounds something and brings it into cell

for channels down gradient lipid soluble

28. b) cell eating

29. b) cell drinking

30. b) the vesicle merges with the plasma membrane to transport the substance out

31. a) anything that has mass and takes up space

32. d) the capacity to do work or put matter into motion

33. b) atoms

34. d) cation has a positive charge, anion has a negative charge

35. d) atomic number is the number of protons, atomic mass is protons plus neutrons

36. d) speed up , enzymes b) the rate of reaction

37. d) increases

38. c) increases

39. a) catalysts because they're never used up

40. a) decreases

41. d) polar and nonpolar

42. d) an equal (nonpolar) or unequal (polar) share of electrons

43. d) a molecule is the general term for two or more atoms bonded together. a compound is a specific molecule that has two or more different kinds of atoms bonded together

44. d) an atom gives up electrons to another and becomes a cation, the one that receives them becomes an anion , one b) atom gives up its electrons so the other can gain electrons so they can complete their shells , one c) atoms gives up electrons so another can receive them and they become attracted to each other

45. b) anabolic or synthesis

46. d) breaking down of molecules

47. d) in dehydration synthesis water is released so two monomers can become a polymer. in hydrolysis water comes into the

48. b) water

formula and makes one monomer into two polymers

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50. a) have a milky/cloudy look , d) have large particles that do not settle out

51. a) contain large particles that settle out , c) blood is an example

52. d) structural variations of the same element, but with different numbers of neutrons

53. a) hydrogen, ionic, covalent