

1. When the chromosomes line up in mitosis this is known as which phase?

- A. Telophase
- B. Anaphase
- C. Metaphase
- D. Prophase

2. Which cellular organelle contains enzymes that are considered digestive?

- A. Golgi Apparatus
- B. Lysosomes
- C. Nucleus
- D. Ribosomes

3. Organs repair themselves through a process of?

- A. Meiosis
- B. Mitosis
- C. Cellular differentiation
- D. Transformation

4. Which of the following is considered a model for enzyme action?

- A. Lock and Key model
- B. Enzyme interaction model
- C. Transformation model
- D. Transcription model

4. Which of the following is considered a model for enzyme action?

- A. Enzymes are catalysts.
- B. Almost all enzymes are proteins.
- C. Enzymes operate most efficiently at optimum pH.
- D. Lock and Key model

6. Which of the following statements about prostaglandins is not true?

- A. Prostaglandins promote inflammation.
- B. Prostaglandins can only constrict blood vessels.

- C. Prostaglandins are made in the renal medulla.
- D. Prostaglandins can lead to pain and fever.

7. Cholesterol that is known as (LDL) stands for:

- A. Low-density lipoproteins
- B. Low-density lysosomes
- C. Level-density lipoproteins
- D. Level-density lysosomes

8. Hardening of the arteries is known as:

- A. Atherosclerosis
- B. Venous narrowing
- C. Micro-circulation
- D. Hypertension

9. The top number on a blood pressure reading indicates:

- A. Diastolic pressure
- B. Transient pressure
- C. Optimum pressure
- D. Systolic pressure

10. Litmus paper that is blue will turn/stay _____ in the presence of a strong base.

- A. Orange
- B. Red
- C. Blue
- D. Green

11. Breathing properly requires the presence of what compound that affects surface tension of alveoli in the lungs?

- A. Potassium
- B. Plasma
- C Breathing properly requires the presence of what compound that affects surface tension of alveoli in the lungs?

D. Sodium Chloride

12. Which of the following is not considered a function of the kidneys?

- A. Secretion
- B. Reabsorption
- C. Transport
- D. Filtration

13. The functional unit of the kidney is known as?

- A. Medulla
- B. Glomerulus
- C. Pyramid
- D. Nephron

14. Which of the following formulas indicate the ideal gas law?

- A. $PV = knT$ or $PV = RnT$
- B. $V = kT$
- C. $PV = k$
- D. $KTV = PR$

15. Which of the following is not considered a characteristic or property of a gas?

- A. Volume
- B. Mass
- C. Pressure
- D. Particles

16. Which of the following is described in the definition: An object immersed in a fluid is buoyed up by a force equal to the weight of the fluid displaced by the object?

- A. Archimedes' principle
- B. Charles' law
- C. Boyle's law
- D. Anderson's principle

17. Liquids that evaporate quickly are known as _____ liquids.

- A. Viscous
- B. Volatile
- C. Evaporative
- D. Transient

18. High frequency sound waves are known as:

- A. Fundamental waves
- B. Overtones**
- C. Consonance waves
- D. Dissonance waves

19. The first American to win a Nobel Prize was _____ for measuring the speed of light.

- A. Albert Einstein
- B. Albert Michelson**
- C. Grimaldi
- D. Thomas Young

20. What anatomical structure connects the stomach and the mouth?

- A. Trachea
- B. Spinal column
- C. Hepatic duct
- D. Esophagus**

Answer Key

- 1. C
- 2. B
- 3. B
- 4. A
- 5. D
- 6. B
- 7. A
- 8. A
- 9. D
- 10. C
- 11. C
- 12. C
- 13. D
- 14. A
- 15. D
- 16. A
- 17. B
- 18. B
- 19. B
- 20. D

1. The movement of food through the intestines is known as:

A. Peristalsis

B. Ileum translation

C. Microvilli propulsion

D. Flexure propulsion

2. The enzyme *maltase* does the following:

A. Breaks down lactose to glucose

B. Turns glucose into maltose

C. Breaks down maltose to glucose

D. Turns glucose into lactose

3. High levels of bilirubin in the blood stream can result in:

A. Uric acid overexposure

B. Jaundice

C. Bile salt production

D. Hepatic mutation

4. The symbol B on the periodic table stands for:

A. Beryllium

B. Boron

C. Barium

D. Berkelium

5. The symbol Mn on the periodic table stands for:

A. Magnesium

B. Molybdenum

C. Manganese

D. Margon

6. The symbol Ca on the periodic table stands for:

A. Calcium

B. Carbon

C. Cobalt

D. Chlorine

7. The symbol Br on the periodic table stands for:

- A. Beryllium
- B. Boron
- C. Barium
- D. Bromine

8. Vinegar is also known as:

- A. Acetic acid
- B. Acetone acid
- C. Sulfuric acid
- D. Ascorbic acid

9. A Lewis acid is a/an ____ pair acceptor.

- A. Neutron
- B. Proton
- C. Electron
- D. Ion

10. ____ reactions produce heat.

- A. Endothermic
- B. Exothermic
- C. Hydrogen
- D. Buffered

11. Which of the following match the definition: The pressure (P) is inversely proportional to the volume (V) of a gas.

- A. Archimedes' principle
- B. Charles' law
- C. Boyle's law
- D. Anderson's principle

12. The combination of sodium and chlorine to form NaCl is considered a/an ____ bond.

- A. Ionic
- B. Covalent
- C. Hydrogen
- D. Metallic

13. Outer shell electrons are known as _____ electrons.

- A. Hybrid
- B. Valence**
- C. Vector
- D. Transitional

14. Forces can be indicated on graph paper by the use of _____.

- A. Empirical rules
- B. Interaction coefficients
- C. Variables
- D. Vectors**

15. $P_1V_1 = P_2V_2$ represents:

- A. Archimedes' principle
- B. Charles' law
- C. Boyle's law**
- D. Anderson's principle

16. Which of the following is not considered a primary color of light?

- A. Green
- B. Blue
- C. Red
- D. Yellow**

17. The unit of charge is called the _____.

- A. Newton
- B. Coulomb**
- C. Joule
- D. Watt

18. A/An _____ is a device specifically designed to measure current.

- A. Ammeter**
- B. Cyclotron
- C. Resistor
- D. Capacitor

19. The two bones found in the area between the knee and ankle in humans are known as:

- A. Femur and Tibia
- B. Fibula and Tibia**
- C. Ulna and Tibia
- D. Radius and Tibia

20. _____ is the current flow of one coulomb per second.

- A. Ampere**
- B. Joule
- C. Watt
- D. Kilowatt

Answer Key

- 1. A
- 2. C
- 3. B
- 4. B
- 5. C
- 6. A
- 7. D
- 8. A
- 9. C
- 10. B
- 11. C
- 12. A
- 13. B
- 14. D
- 15. C
- 16. D
- 17. B
- 18. A
- 19. B
- 20. A

1. Which of the following is considered a component of lipids?

- A. Plasma cells
- B. Fatty acids**
- C. Nucleic acids
- D. Zinc

2. Down's syndrome affects chromosome _____.

- A. 13
- B. 15
- C. 21
- D. 23

3. Blood enters the lungs from which chamber of the heart?

- A. Right atrium
- B. Left atrium
- C. Right ventricle
- D. Left ventricle

4. Excessive consumption of alcohol is most likely to damage which organ of the body over a long period of time?

- A. Kidney
- B. Liver
- C. Pancreas
- D. Gallbladder

5. Which of the following is not considered a type of radiation ray?

- A. Gamma
- B. Beta
- C. Alpha
- D. Infrared

6. A molecule of hemoglobin can hold how many molecules of oxygen in the blood for transport?

- A. 2
- B. 4
- C. 6
- D. 8

7. Which of the following best describes the biomechanics of breathing?

- A. Pump handle motion
- B. Lever action
- C. Inspiration
- D. Expiration

8. Animals that eat meat almost exclusively are known as:

- A. Herbivores
- B. Carnivores
- C. Arthropods
- D. Prolific organisms

9. The physical expressions of a gene are known as an organism's:

- A. Transcription
- B. Genotype
- C. Phenotype
- D. Translation

10. A ball is traveling at a constant velocity of 50 m/s and has been traveling for over 2 minutes. What is the ball's acceleration?

- A. 0
- B. 25 m/s
- C. 25 m/s
- D. 50 m/s²

11. Neurons connect together at a _____.

- A. Synergy
- B. Terminal site
- C. Docking station
- D. Synapse

12. Which of the following is another word for the kneecap in the human body?

- A. Pisiform
- B. Meniscus
- C. Popliteal bursa
- D. Patella

13. Which of the following describes the shoulder joint

- A. Ball and socket joint
- B. Saddle joint
- C. Hinge joint
- D. Pivot joint

14. The organ of Corti is found in what area of the body?

- A. Mouth
- B. Ear
- C. Nose
- D. Lungs

15. The condition of rickets is associated with a deficiency in which vitamin?

- A. A
- B. C
- C. D
- D. Z

16. A steroid is considered a _____.

- A. Lipid
- B. Protein
- C. Enzyme
- D. Weak acid

17. The X cranial nerve is the _____ nerve.

- A. Abducens
- B. Hypoglossal
- C. Facial
- D. Vagus

18. Which of the following pH ranges is a strong base?

- A. 1.3-2.0
- B. 4.5-5.2
- C. 7.1-9.0
- D. 11.2-12.0

19. Which chamber of the heart pumps blood to the systemic circulation?

- A. Left Atrium
- B. Right Atrium
- C. Left Ventricle
- D. Right Ventricle

20. Which of the following formulas indicates Newton's second law of motion?

A. $F = ma$

B. $F = mva$

C. $v = d/t$

D. $p = mv$

Answer Key

1. B

2. C

3. C

4. B

5. D

6. B

7. A

8. B

9. C

10. A

11. D

12. D

13. A

14. B

15. C

16. A

17. D

18. D

19. C

20. A