Myfuture CBC Revision

Science - GRADE 8

Question Paper

1. In an atom, which subatomic particle has the least mass?

A. Nucleus

B. Neutron

C. Proton

D. Electron

2. How does depth affect pressure in a fluid?

A. As depth increases, pressure remains constant

B. As depth increases, pressure increases

C. As depth increases, pressure decreases

D. Depth does not affect pressure

3. What happens to the energy during a process where a metal rod is heated?

A. Energy is destroyed

B. Energy is wasted as light

C. Energy is transferred as heat

D. Energy is created

4. What is the total number of protons in the nucleus of an atom called?

A. Mass number

B. Isotope number

C. Atomic number

D. Atomic mass

5. Which organelle is responsible for producing lipids, steroids, and detoxifying substances in the cell?

A. Cell membrane

B. Golgi apparatus

C. Endoplasmic reticulum

D. Chloroplasts

6. What happens to the energy conversion during friction?

A. Energy is converted into light

B. Energy is created

C. Energy is destroyed

D. Energy is wasted as heat

7. What is the name of the region around the nucleus where electrons are likely to be found?

A. Orbit

B. Electron cloud

C. Shell

D. Energy level

8. Which organelle is responsible for storing materials such as water, salts, proteins, and carbohydrates?

A. Ribosomes

B. Vacuoles

C. Cell membrane

D. Lysosomes

9. Which state of matter can be compressed into a smaller volume with the application of pressure?

A. Plasma

B. Solid

C. Gas

D. Liquid

10. What device is commonly used to measure blood pressure?

A. Hygrometer

B. Barometer

C. Sphygmomanometer

D. Thermometer

11. Which of the following is an element?

A. Copper

B. Vinegar

C. Carbon Dioxide

D. Methane

12. What is the role of the ribosomes in a cell?

A. Synthesize proteins

B. Store genetic material

C. Produce energy

D. Regulate cell movement

13. Which organelle is known as the 'powerhouse' of the cell?

A. Mitochondrion

B. Golgi apparatus

C. Lysosome

D. Ribosome

14. Which of the following is a compound?

A. Iron

B. Air

C. Gold

D. Sodium Chloride (table salt)

15. Which subatomic particle is responsible for creating chemical bonds between atoms?

A. Neutron

B. Molecule

C. Electron

D. Proton

16. What is the effect of increasing the force applied on a given area?

A. Pressure decreases

B. Pressure remains constant

C. Pressure becomes zero

D. Pressure increases

17. What happens to the properties of a compound when its elements are chemically separated?

A. Properties disappear

B. Properties become unpredictable

C. Properties remain the same

D. Properties change completely

18. Which compound is responsible for carrying oxygen in red blood cells?

A. Hemoglobin

B. Carbon dioxide

C. White blood cells

D. Plasma

19. Which compound is most commonly used as the source of oxygen in metal smelting processes?

A. Oxygen gas

B. Carbon monoxide

C. Ozone

D. Hydrogen peroxide

20. Which state of matter changes its volume the most with changes in temperature and pressure?

A. Liquid

B. Plasma

C. Solid

D. Gas

21. What is the formula for pressure?

A. Pressure = Force + Area

B. Pressure = Volume / Force

C. Pressure = Force / Area

D. Pressure = Area x Volume

22. Which subatomic particle has a mass approximately equal to 1 amu (atomic mass unit)?

A. Proton

B. Neutron

C. Electron

D. Nucleus

23. What is pressure?

A. Amount of heat energy in a system

B. Force applied per unit area

C. Speed of an object

D. Acceleration of an object

24. Which organelle is responsible for detoxifying harmful substances in the cell?

A. Golgi apparatus

B. Vacuoles

C. Endoplasmic reticulum

D. Lysosomes

25. Which element makes up the majority of Earth's atmosphere?

A. Carbon

B. Hydrogen

C. Oxygen

D. Nitrogen

26. Which substance is a component of limestone and marble rocks?

A. Potassium chloride

B. Calcium carbonate

C. Magnesium sulfate

D. Sodium bicarbonate

27. Which subatomic particle has a negative charge?

A. Proton

B. Electron

C. Neutron

D. Nucleus

28. What happens to pressure as the area over which a force is applied increases?

A. Pressure decreases

B. Pressure is not affected

C. Pressure increases

D. Pressure remains the same

29. Which compound is formed when oxygen combines with carbon in a limited oxygen supply?

A. Carbon monoxide

B. Carbonate

C. Carbonic acid

D. Carbon dioxide

30. Which organelle is responsible for storing water, food, and waste in a plant cell?

A. Chloroplast

B. Endoplasmic reticulum

C. Nucleus

D. Vacuole

31. Diamond is an example of which of the following?

A. Compound

B. Mixture

C. Salt

D. Element

32. Which organelle is responsible for controlling what goes in and out of the cell?

A. Mitochondria

B. Ribosome

C. Vacuole

D. Cell membrane

33. What is the primary function of oxygen in the human body?

A. Aids in vision

B. Supports digestion

C. Enables circulation

D. Facilitates respiration

34. When a person eats food, what type of energy transformation occurs in the body?

A. Chemical to mechanical energy

B. Mechanical to electrical energy

C. Heat to light energy

D. Chemical to thermal energy

35. Which state of matter has the highest density and the least compressibility?

A. Plasma

B. Gas

C. Solid

D. Liquid

36. Which state of matter has the property of surface tension due to the attraction between its particles?

A. Plasma

B. Liquid

C. Gas

D. Solid

37. What is the formula for calculating pressure?

A. Force / Area

B. Area / Force

C. Force * Area

D. Force / Speed

38. What is the smallest unit of a compound that retains the properties of that compound?

A. Element

B. Atom

C. Particle

D. Molecule

39. Which subatomic particle determines the identity of an element?

A. Electron

B. Neutron

C. Proton

D. Molecule

40. What happens to pressure as altitude increases?

A. Pressure increases

B. Pressure remains constant

C. Pressure becomes zero

D. Pressure decreases

41. Which element is commonly found in the form of compounds such as carbon dioxide and methane in the atmosphere?

A. Carbon

B. Nitrogen

C. Oxygen

D. Helium

42. Which process involves the movement of water molecules across a selectively permeable membrane?

A. Active transport

B. Endocytosis

C. Osmosis

D. Diffusion

43. Which compound is commonly used to treat water and has the chemical formula H_2O_2?

A. Chloroform

B. Hydrochloric acid

C. Sodium chloride

D. Hydrogen peroxide

44. Which of the following is a function of the plant cell wall in relation to movement of materials?

A. Controlling passage of substances

B. Regulating temperature

C. Producing energy

D. Providing structural support

45. What do elements consist of?

A. Atoms of the same type

B. No specific structure

C. Molecules

D. Various types of atoms

46. Which state of matter has the ability to be shaped or molded into different forms?

A. Solid

B. Liquid

C. Gas

D. Plasma

47. What determines the chemical properties of an element?

A. Atomic mass

B. Atomic number

C. Isotope mass

D. Isotope number

48. Which organelle is responsible for protein synthesis in the cell?

A. Mitochondria

B. Endoplasmic reticulum

C. Golgi apparatus

D. Ribosomes

49. What is the relationship between pressure and altitude in the Earth's atmosphere?

A. Pressure becomes zero at the top

B. Pressure increases with altitude

C. Pressure decreases with altitude

D. Pressure remains constant with altitude

50. Which subatomic particle has a mass of approximately 1 amu?

A. Proton

B. Electron

C. Atom

D. Neutron