Myfuture CBC Revision
Science - GRADE 8

Question Paper

1. How does facilitated diffusion differ from simple diffusion?

A. It requires energy

B. It moves molecules against the concentration gradient

C. It is faster

D. It involves transport proteins

2. What is a pure substance made up of only one type of atom?

A. Compound

B. Element

C. Mixture

D. Isotope

3. What is the process by which materials move into a cell without the use of energy called?

A. Endocytosis

B. Active transport

C. Osmosis

D. Diffusion

4. Which state of matter has neither a definite shape nor a definite volume?

A. Gas

B. Solid

C. Liquid

D. Plasma

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

A. Pressure increases

B. Pressure decreases

C. Pressure remains the same

D. Pressure is not affected

6. What is the main function of the cell membrane?

A. Provide structure and support

B. Store genetic material

C. Produce energy through photosynthesis

D. Regulate movement of materials into and out of the cell

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

A. Lysosome

B. Mitochondrion

C. Golgi apparatus

D. Ribosome

8. Which of the following is an element that is commonly found in the Earth's crust?

A. Carbon dioxide

B. Ammonium chloride

C. Silicon

D. Sulphuric acid

9. Which compound is produced by the combustion of fuels such as gasoline and coal?

A. Water

B. Carbon dioxide

C. Methane

D. Ozone

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

A. Produce energy

B. Regulate cell movement

C. Store genetic material

D. Synthesize proteins

11. Which energy transformation occurs when a radio plays music?

A. Electrical to sound energy

B. Sound to mechanical energy

C. Electrical to thermal energy

D. Chemical to mechanical energy

12. Which element is commonly found in organic molecules such as proteins, carbohydrates, and fats?

A. Phosphorus

B. Carbon

C. Sulphur

D. Potassium

13. Which element is essential for the process of respiration in living organisms?

A. Nitrogen

B. Oxygen

C. Carbon

D. Hydrogen

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

A. Pressure increases with altitude

B. Pressure decreases with altitude

C. Pressure becomes zero at the top

D. Pressure remains constant with altitude

15. What type of energy transformation occurs when a phone is charged using a power bank?

A. Light to electrical energy

B. Chemical to mechanical energy

C. Electrical to sound energy

D. Chemical to electrical energy

16. Which organelle helps in packaging and transporting materials within the cell?

A. Lysosome

B. Golgi apparatus

C. Endoplasmic reticulum

D. Nucleus

17. What is the formula for calculating pressure?

A. Force / Speed

B. Area / Force

C. Force / Area

D. Force * Area

18. Which compound is known for its role in protecting Earth from harmful ultraviolet radiation?

A. Propane

B. Acetone

C. Sunscreen

D. Ozone

19. Which compound is used in the production of soda ash and baking soda?

A. Hydrochloric acid

B. Sodium chloride

C. Sodium bicarbonate

D. Magnesium sulfate

20. Which substance is a mixture of carbon, hydrogen, and oxygen atoms in various ratios?

A. Glucose

B. Oxygen gas

C. Water

D. Carbon dioxide

21. Which of the following factors does not affect pressure?

A. Force

B. Density

C. Area

D. Speed

22. What is the function of the cytoplasm in a cell?

A. Facilitates cellular processes

B. Acts as a barrier

C. Stores genetic material

D. Provides structure and support

23. What are the basic building blocks of matter?

A. Elements

B. Mixtures

C. Atoms

D. Compounds

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

A. Carbon monoxide

B. Hydrogen peroxide

C. Ozone

D. Oxygen gas

25. What is the outer covering of a plant cell called?

A. Cell membrane

B. Cell wall

C. Nucleus

D. Cytoplasm

26. What is the SI unit of pressure?

A. Meter

B. Newton

C. Second

D. Pascal

27. Which organelle is responsible for storing and releasing energy in the form of ATP?

A. Mitochondria

B. Ribosomes

C. Chloroplasts

D. Cell wall

28. During respiration, what type of energy transformation takes place in living organisms?

A. Electrical to mechanical energy

B. Light to chemical energy

C. Chemical to mechanical energy

D. Chemical to electrical energy

29. Which organelle is responsible for maintaining cell turgidity and aiding in storage of materials?

A. Nucleus

B. Chloroplasts

C. Vacuoles

D. Ribosomes

30. What happens to the energy during a mechanical energy transformation?

A. Energy is wasted as heat

B. Energy is created

C. Energy is destroyed

D. Energy is simply transformed

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

A. Carbon dioxide

B. Carbonic acid

C. Carbonate

D. Carbon monoxide

32. What is the definition of an element?

A. A natural or synthetic material that cannot be broken down into simpler substances by
B. A compound formed from the combination of two or more elements
C. A mixture of two or more substances that are not chemically combined
D. A substance made of two or more elements combined

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

A. Pressure increases

B. Pressure remains constant

C. Pressure becomes zero

D. Pressure decreases

34. What is a compound made up of?

A. A mixture of elements

B. Two or more elements chemically bonded together

C. A single element

D. Compounds are not made up of anything

35. What is the impact of reducing the force applied on a given area?

A. Pressure increases

B. Pressure decreases

C. Pressure remains constant

D. Pressure becomes zero

36. When a person lifts weights, what energy transformation takes place?

A. Chemical to mechanical energy

B. Mechanical to electrical energy

C. Sound to light energy

D. Solar to thermal energy

37. Which transport process requires the cell to expend energy to move molecules?

A. Exocytosis

B. Facilitated diffusion

C. Active transport

D. Osmosis

38. Which organelle is responsible for regulating what enters and exits the nucleus of a cell?

A. Nucleolus

B. Ribosomes

C. Nuclear membrane

D. Endoplasmic reticulum

39. Which of the following units is used to measure pressure?

A. Meters per second

B. Pascals

C. Kelvin

D. Joules

40. What is the formula for pressure?

A. Pressure = Volume / Force

B. Pressure = Area x Volume

C. Pressure = Force / Area

D. Pressure = Force + Area

41. The movement of molecules from an area of high concentration to an area of low concentration is known as?

A. Active transport

B. Endocytosis

C. Diffusion

D. Osmosis

42. Which of the following is an element?

A. Sodium Chloride

B. Hydrochloric Acid

C. Vinegar

D. Carbon

43. Which of the following is NOT a compound?

A. Water

B. Oxygen

C. Aluminum Oxide

D. Calcium Carbonate (limestone)

44. Which organelle is responsible for maintaining the shape of the cell and controlling what enters and exits the cell?

A. Cell membrane

B. Nucleus

C. Mitochondria

D. Ribosomes

45. Where are protons and neutrons located within an atom?

A. In the electron shells

B. In the energy levels

C. In the nucleus

D. In the electron cloud

46. Which state of matter is formed at very high temperatures and is composed of ionized particles?

A. Solid

B. Liquid

C. Gas

D. Plasma

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

A. Electron

B. Proton

C. Atom

D. Neutron

48. What is the term for the engulfing of large solid particles by the cell?

A. Endocytosis

B. Pinocytosis

C. Exocytosis

D. Phagocytosis

49. Which term describes the process where cells release materials outside the cell by enclosing them in a vesicle?

A. Pinocytosis

B. Exocytosis

C. Phagocytosis

D. Endocytosis

50. Which element is present in water molecules, H2O?

A. Carbon

B. Oxygen

C. Nitrogen

D. Hydrogen