



Q 1

Multiple choice

1- Which of the following states of matter is characterized by having a fixed shape and a definite volume?

- A) Liquid state
- B) Gaseous state
- C) Solid state
- D) Plasma state

2- The cellular organelles responsible for the process of light absorption in plants are:

- A) Mitochondria in the cell
- B) Chloroplasts in the cell
- C) The central nucleus of the cell
- D) Large vacuoles

3- Breaking bonds in the reactants and forming new bonds in the products is called:

- A) A real chemical reaction
- B) The process of physical fusion
- C) Physical shape change
- D) The simple process of dissolution

4- Proteins are made up of very small basic building blocks called:

- A) Large fatty acids
- B) Simple monosaccharides
- C) Water-soluble vitamins
- D) Different amino acids

5- The particles of a solid move continuously but in the form of:

- A) Rapid random motion
- B) Localized vibrational motion
- C) Extensive translational motion
- D) Rapid rotational motion

6- The gas that plants absorb from the air to carry out photosynthesis is:

- A) Light hydrogen gas
- B) Inert nitrogen gas
- C) Carbon dioxide gas
- D) Pure oxygen gas

7- Heat is transferred in solid metal objects primarily through:

- A) Thermal conduction
- B) Thermal diffusion
- C) Thermal radiation
- D) Thermal convection





8- Transforming matter from the gaseous state to the liquid state is called:

- A) The process of fusion by heat
- B) The process of freezing by cooling
- C) The process of rapid evaporation
- D) The process of condensation by cooling

9- The main and fast source for obtaining energy in the human body is:

- A) Strong animal proteins
- B) Essential mineral salts
- C) Simple, easy carbohydrates
- D) Heavy saturated fats

10- The main product of photosynthesis that stores chemical energy is:

- A) Liquid water molecules
- B) Simple glucose sugar
- C) Carbon dioxide gas
- D) Dissolved mineral salts

11- Most stages of cellular respiration for energy production occur inside organelles called:

- A) The powerful mitochondria
- B) The internal cytoplasm of the cell
- C) The small ribosomes of the cell
- D) The outer cell wall

12- A chemical equation must always be balanced to comply with the law of:

- A) Action and reaction
- B) Earth's gravity
- C) Conservation of energy
- D) Conservation of mass

13- Gases are distinguished from liquids and solids by their high ability to:

- A) Cohere with very strong forces
- B) Be compressed into a small space
- C) Vibrate in a fixed position
- D) Maintain their own shape

14- The sun's energy reaches us through outer space primarily via:

- A) Physical thermal conduction
- B) Gaseous thermal convection
- C) Wave-like thermal radiation
- D) Direct thermal contact

15- Dietary fibers found in vegetables and fruits help in:

- A) Rapidly increasing body weight
- B) Building chemical hormones





C) Colouring red blood cells

D) Improving the daily digestion process

16- The green pigment that absorbs light in plants is called:

A) Green chlorophyll

B) Colored carotenoids

C) Red hemoglobin

D) Dark melanin

17- The transfer of heat in liquids and gases through the movement of molecules is called:

A) Direct thermal conduction

B) Long-distance thermal radiation

C) Strong kinetic friction

D) Continuous thermal convection

18- A substance that increases the rate of a reaction without being consumed is called:

A) A sensitive colorimetric reagent

B) The solid precipitate formed

C) A catalytic agent (catalyst)

D) The continuous liquid solvent

19- Dust particles move randomly in the air in a motion known as:

A) Thermal diffusion phenomenon

B) Random Brownian motion

C) Optical radiation phenomenon

D) Kinetic conduction phenomenon

20- Fats are used in the body of a living organism mainly for:

A) Energy storage

B) Building muscles and tissues

C) Cooling the body

D) Transmitting genetic traits

21- The element iron is very essential in the human body for the formation of:

A) The plant cell wall

B) Strong bones and teeth

C) Protection of the thin cell membrane

D) Hemoglobin in the blood

22- A deficiency of vitamin C in a person's daily diet leads to:

A) Soft bones and easy fractures

B) Bleeding gums and weakened immunity

C) Hair loss and dry skin

D) Poor vision and night blindness





23- The intermolecular spaces between the particles of matter are greatest in:

- A) The flowing liquid state
- B) The frozen cold state
- C) The diffused gaseous state
- D) The cohesive solid state

24- The breakdown of food molecules to produce energy inside the cell is called:

- A) The process of photosynthesis
- B) The process of plant transpiration
- C) The simple process of fermentation
- D) The process of cellular respiration

25- Melting occurs when the particles of a substance gain enough energy to:

- A) Overcome the attractive forces
- B) Stop the movement of particles
- C) Increase the bonding forces between them
- D) Reduce the intermolecular spaces

26- A gas is released as a byproduct of the photosynthesis process, which is:

- A) Methane
- B) Nitrogen
- C) Oxygen
- D) Hydrogen

27- During photosynthesis, light energy is converted into:

- A) Mechanical kinetic energy
- B) Stored chemical energy
- C) Audible sound energy
- D) Visible magnetic energy

28- According to the particle theory, the particles of a single substance are:

- A) Completely stationary
- B) Visible to the naked eye
- C) Completely different from each other
- D) Exactly identical in their properties

29- The reaction of an acid with a base to produce a salt and water is called:

- A) Chemical neutralization
- B) Chemical combustion
- C) Chemical decomposition
- D) Chemical exchange
- A) Oxygen gas and liquid water
- B) Alcohol and mineral salts
- C) Carbon dioxide and water
- D) Nitrogen gas and atmospheric dust

31- The total energy stored within the particles that make up matter is called:

- A) Static electrical energy
- B) The internal energy of matter
- C) The total mechanical energy
- D) Potential chemical energy





First Semester

Form 1

Final Exam

Class PREP 2

Subject Science



32- The conversion of complex food into simple, easily absorbed substances is called:

- A) The process of circulation
- B) The process of excretion
- C) The process of respiration
- D) The process of digestion

33- The substances we start a reaction with, found on the left side of the equation, are:

- A) The initial reactants
- B) The final products
- C) The resulting soluble salts
- D) The assisting catalytic agents

34- 4g of (A) reacted with 6g of (B), producing 9g of (C). What is the mass of product (D)?

- A) 1g
- B) 2g
- C) 3g
- D) 4g

35- The plasma state is a distinct state of matter found prominently in:

- A) Mountains and icy peaks
- B) The rocky interior of the Earth
- C) Stars and lightning phenomena
- D) Oceans and deep seas

36- Which of the following materials is considered a complex carbohydrate?

- A) Rock salt
- B) White rice powder
- C) Fine table sugar
- D) Pure olive oil

  

- A) The stoppage of material cycles
- B) A constant increase in carbon
- C) A complete depletion of oxygen
- D) A balance in gas ratios

38- When a substance gains thermal energy, the speed of its particles:

- A) Increases and their motion accelerates
- B) Decreases and their motion slows down
- C) Remains constant and does not change
- D) Stops completely



39- A chemical reaction that releases heat to the surroundings is called:

- A) An endothermic reaction
- B) A thermally neutral reaction
- C) An exothermic reaction
- D) A simple reversible reaction

40- Transforming matter from the liquid state to the gaseous state is called:

- A) Freezing
- B) Evaporation
- C) Condensation
- D) Boiling

41- If an object's temperature is 20°C, what is its value in Kelvin (K)?

- A) 253
- B) 273
- C) 293
- D) 313

42- Which of the following elements is considered an important mineral salt for the body?

- A) Carbon
- B) Hydrogen
- C) Nitrogen
- D) Calcium

43- Heat is transferred in liquids through currents called:

- A) Convection currents
- B) Conduction currents
- C) Radiation currents
- D) Diffusion currents

44- What is the name of the compounds formed from the union of monosaccharides?

- A) Oily lipids
- B) Complex carbohydrates
- C) Nucleic acids
- D) Diverse proteins

45- The primary function of mitochondria in the cell is:

- A) Carrying out photosynthesis
- B) Storing water and salts
- C) Producing energy for the cell
- D) Controlling cell division

46- When heat transfers between two bodies, the transfer stops when:

- A) Their temperatures become equal
- B) Their temperatures are different
- C) The volume of the cold body increases
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## Form 1

## Final Exam

# Class **PREP 2**

# Subject Science



47- In the photosynthesis equation:  $6\text{CO}_2 + 6\text{H}_2\text{O} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$ , if the plant consumes 12 water molecules, how many oxygen molecules are produced?

- A) 6 molecules
- B) 12 molecules
- C) 18 molecules
- D) 24 molecules

48- The main location where photosynthesis occurs in plants is:

- A) Flowers**
- B) Stems**
- C) Roots**
- D) Leaves**

49- Aerobic cellular respiration primarily requires the presence of:

- A) Hydrogen**
- B) Carbon dioxide**
- C) Oxygen**
- D) Nitrogen**

50- A chemical equation consists of two sides always separated by:

- A) An arrow
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- C) A period
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