



**First
Semester**

Form 1

Final Exam

**Class
PREP 2**

**Subject
Science**



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
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- C) Thermal radiation
- D) Thermal convection





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

- A) Strong animal proteins
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- D) Heavy saturated fats

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

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

- A) The powerful mitochondria
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- 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





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C) Colouring red blood cells

D) Improving the daily digestion process

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

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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

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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)

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

A) Thermal diffusion phenomenon

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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

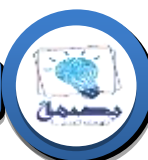
22- A deficiency of vitamin C in a person's daily diet leads to:

A) Soft bones and easy fractures

B) Bleeding gums and weakened immunity

C) Hair loss and dry skin

D) Poor vision and night blindness





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

- A) The process of circulation
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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
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35- The plasma state is a distinct state of matter found prominently in:

- A) Mountains and icy peaks
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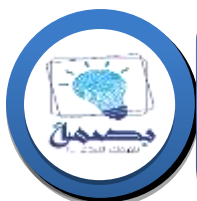
36- Which of the following materials is considered a complex carbohydrate?

- 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
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- A) An endothermic reaction
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40- Transforming matter from the liquid state to the gaseous state is called:

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

- A) 253
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42- Which of the following elements is considered an important mineral salt for the body?

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43- Heat is transferred in liquids through currents called:

- A) Convection currents
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44- What is the name of the compounds formed from the union of monosaccharides?

- A) Oily lipids
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45- The primary function of mitochondria in the cell is:

- A) Carrying out photosynthesis
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- A) 6 molecules
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48- The main location where photosynthesis occurs in plants is:

- A) Flowers
- B) Stems
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49- Aerobic cellular respiration primarily requires the presence of:

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

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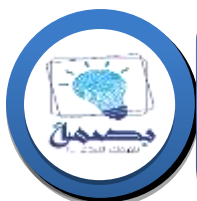
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