ALADWAA Gem

Science

نماذج امتحانات الأضواء النهائية

الفصل الدراسى الأول



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Primary 6

2026

Model 1

1 A) Correct the underlined word:

- The plant cell is characterized by the presence of **plasma membrane**.

(.....)

B) What happens ...?

1. If the mitochondria don't function properly.
   - .....
2. If a body has unneeded glucose that is not used for energy immediately.
   - .....
3. If there are no spaces between railway tracks.
   - .....
4. When two objects with same temperature touch each other.
   - .....

2 A) Choose the correct answer:

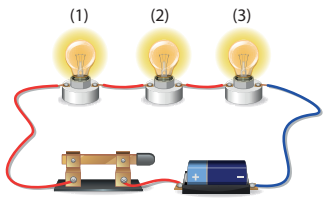
- Heat is transferred by radiation through ..... .

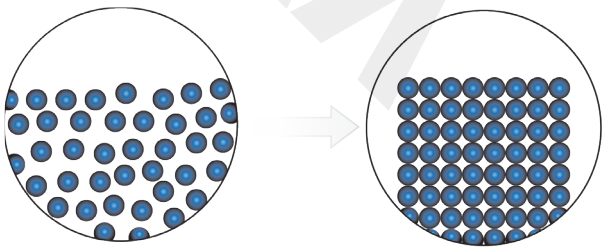
  a) solids only b) solids and liquids c) liquid only d) gases and space

B) First: Mention ...:

1. The working idea of generators.
   - .....
2. The importance of the internal switch in a thermostat.
   - .....

Second: Look at the following figures, then answer:





1. What happens if bulb no. (2) is disconnected in this circuit?
   - .....

2. a. This figure represents the ..... process.

   b. The kinetic energy of molecules ....., and the spaces between molecules ..... as well.

3 A) Complete the following sentences:

1. The cell wall is made of ..... .
2. During sweating, waste products leave the body through the ..... .

B) Give a reason for:

1. The nucleus has an important role in the cell.

   • ..... .

2. The galvanometer needle moves when the magnet is pushed into the coil.

   • ..... .

3. The mass of the popped corn is less than the mass of the popcorn grains after heating.

   • ..... .

4 A) Write the scientific term:

1. A complete, closed path where electricity can flow through. (.....)
2. The measure of the average kinetic energy of molecules and atoms of a substance. (.....)

B) Answer the following questions:

1. During dangerous situations, the brain sends signals to the heart. Explain why.

   • ..... .

2. What is the role of the circulatory system during a fight-or-flight response?

   • ..... .

3. New materials can be created in several ways. How is glass made?

   • ..... .

Model 2

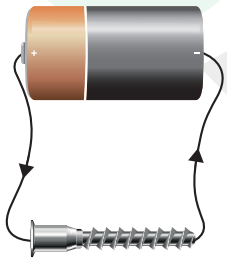
1 A) Correct the underlined word:

- The speed of heat transfer **decreases** when the surface area of contact between two objects increases. (.....)

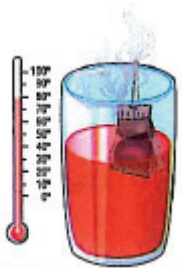
B) First: What is meant by ...?

1. Cellular respiration.
   - .....
   - .....
2. Relaxation process.
   - .....

Second: Look at the following figures, then answer:



1. How can the magnetic field produced by this device be increased?
   - .....



2. What happens if a thermometer is placed in this cup?
   - .....

2 A) Cross out the odd word:

- Nickel – Copper – Steel – Iron. (Copper)

B) First: Answer the following questions:

1. Animal cells do not have a cell wall to provide a fixed shape—so how do they keep their shape?
   - .....
   - .....
2. How is food chemically digested in the mouth?
   - .....
   - .....

Second: Mention ...:

1. The function of resistors.
   - ..... .
2. Two properties of heat.
   - ..... .
   - ..... .

3 A) Complete the following sentences:

1. ..... and ..... are responsible for transporting different materials in the cell.
2. The ..... controls the body responses when it faces danger.

B) What happens ...?

1. When the distance between the Earth and an object is doubled. (In terms of gravity)
   - ..... .
2. When the thermal energy is removed from water vapor.
   (In terms of the process, and the forces between particles)
   - ..... .
3. If the chloroplasts are removed from a plant cell.
   - ..... .

4 A) Write the scientific term:

1. The temperature at which a liquid changes into a gas. (.....)
2. A group of organs that work together to perform a specific function for the body.
   (.....)

B) Give a reason for:

1. The muscle cell is a long fiber.
   - ..... .
2. Touching a non-insulated wire causes an electric shock and may kill people.
   - ..... .
   - ..... .
3. At the same room temperature, a metal doorknob may feel cooler than a wooden door.
   - ..... .
   - ..... .

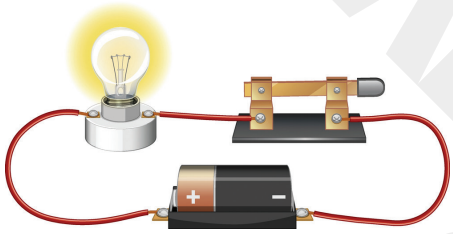
1 A) Complete the following sentences:

- Heat is considered a form of ..... which is measured in ..... .

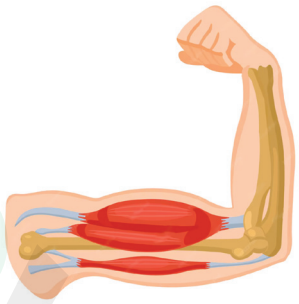
B) First: What happens ...?

1. If much water enters the cell.
   - ..... .
   - ..... .
2. If nephrons are blocked or damaged.
   - ..... .
   - ..... .

Second: Look at the following figures, then answer:



1. What will happen if a piece of rubber is placed in this electric circuit? And why?
   - ....



2. Explain how the forearm moves as shown in the figure.
   - ....

2 A) Correct the underlined word:

- The **esophagus** muscle helps lung to take in and move out gases. (.....)

B) What is meant by ...?

1. Magnetic field.
   - ..... .
2. Thermal contraction.
   - ..... .

Second: Compare between ...:

1

P.O.C	Solid state	Gaseous state
Ability to compress	.....	.....
Thermal energy of particles	.....	.....

2

P.O.C	Petroleum oil	Plastic
State of matter	.....	.....
Ability to burn	.....	.....

3 A) Put (✓) or (✗):

1 Tissues are a group of similar cells. ( )

2 Like poles attract, while unlike poles repel. ( )

B) Give a reason for:

1 Human is a multicellular organism.

- ..... .

2 The respiratory system and the circulatory system work together during the fight-or- flight response.

- ..... .
- ..... .

3 The final temperature after mixing hot and cold water is slightly less than the average temperature.

- ..... .
- ..... .

4 A) Choose the correct answer:

1. One of the components of the cell that packs and transports materials between the cells is ..... .

   a) vacuole b) Golgi apparatus c) mitochondria d) cytoplasm

2. What happens when a hot metal spoon is placed into a cup of cold water?

   a) Heat flows from water to the spoon.

   b) Heat flows from the spoon to water.

   c) Both the spoon and water stay at the same temperatures.

   d) The spoon becomes colder than water.

B) Answer the following:

1. In homes, electric circuits are not connected in series. Explain why.

   - ..... .
   - ..... .

2. What are the similarities between gravity and magnetism?

   - ..... .
   - ..... .

3. What is the idea of working of a thermometer?

   - ..... .
   - ..... .

1 A) Put (✓) or (✗):

- Cell biologists are scientists who study cell. ( )

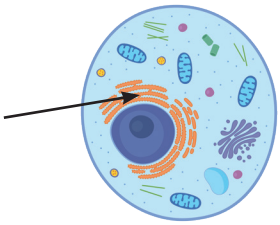
B) What happens ...?

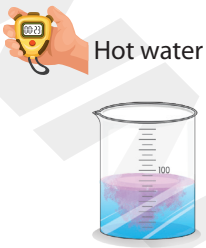
1. To the plant cell if its cell wall is not present.
   - .....
2. When the diaphragm muscle contracts.
   - .....
3. To the voltage "amount of generated electric current" when the number of coil loops increases.
   - .....
4. If the handles of cooking pans are made of iron.
   - .....

2 A) Correct the underlined word:

- When a 10-gram chocolate cube melts, the mass of the molten chocolate will be **5 grams**. (.....)

B) First: Look at the following figures, then answer:





1. What happens if the organelle shown in this figure will not function properly?
   - .....
     .....
     .....
     .....
     .....
     .....

2. When food coloring is added to this beaker, its particles spread very fast. Explain why.
   - .....
     .....
     .....
     .....
     .....
     .....

Second: Mention ...:

1. The function of artificial pacemaker.

   • ..... .

2. The way of heat transfer that occurs when you touch a hot metal spoon.

   • ..... .

3 A) Complete the following sentences:

1. A muscle can only exert force when it ..... .
2. ..... and ..... have definite volumes.

B) Give a reason for:

1. The heart muscle is considered an involuntary muscle.

   • ..... .

2. The switch is an important component of the circuit.

   • ..... .

3. Water loses thermal energy when it is cooled.

   • ..... .

   • ..... .

4 A) Choose the correct answer:

1. All of the following show the relation between electricity and magnetism, except ..... .

   a) electric motor b) electric generator

   c) wind turbines d) electric transformer

2. When the thermal energy of water vapor increases, ...

   a) its turns to water b) the kinetic energy of its particles decreases

   c) its particles move slower d) its particles move faster

B) Answer the following questions:

1. What is the importance of microscopes?

- ..... .
- ..... .

2. Define urea.

- ..... .

3. Compare between thermal conductors and thermal insulators in terms of their ability to conduct heat.

Thermal conductors	Thermal insulators
.....	.....
.....	.....

Model 5

20

1 A) Write the scientific term:

- It is a gelatinous liquid that surrounds all the cell organelles. (Cytoplasm)

B) Give a reason for:

1. The kidney is considered the main organ in the urinary system.
   - .....
   - .....
2. All objects on or near the Earth are pulled towards its center.
   - .....
   - .....
3. When oil is poured into a container, it takes its shape.
   - .....
   - .....
4. You feel the heat of the Sun although there is a space between the Sun and Earth.
   - .....
   - .....

2 A) Choose the correct answer:

- All of the following are organs of the musculoskeletal system, except .....

a) bones b) cartilage c) tendons d) esophagus

B) First: Mention ...:

1. The factors that increase the electric current generated by magnetism.
   - .....
   - .....
2. Three properties of smart clothes.
   - .....
   - .....
   - .....

ONLINE Generation

Second: What happens ...?

1. If the pancreas and the gallbladder do not secret their enzymes and juices in the small intestine.

   • ..... .

2. If the pancreas doesn't make its function properly.

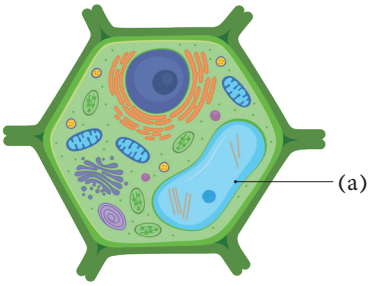
   • ..... .

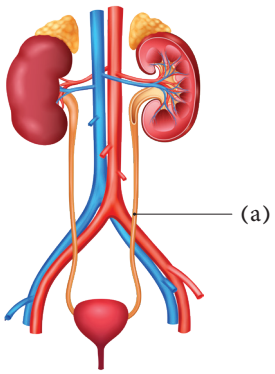
3 A) Complete the following sentences:

1. ..... are the food factories in the plant cell.
2. In parallel connection, if one bulb blows out, the rest of the bulbs ..... .

B) Answer the following questions:

- Look at the following figures, then answer:





1. What happens if organelle (a) is not present?

   • .....
   .....
   ..... .

2. If organ (a) is removed, what will happen?

   • .....
   .....
   ..... .

3. Heat is transferred through water by convection when it is heated. Explain.

   • ..... .
   • ..... .
   • ..... .

4 A) Correct the underlined words:

1. Absorption of digested food begins in the **stomach**. (.....)
2. **Particles of gases** have the least thermal energy as they vibrate in their position. (.....)

B) What is meant by ...?

1. Selective permeability.

   - .....

2. Magnetism.

   - .....

3. Thermal energy.

   - .....