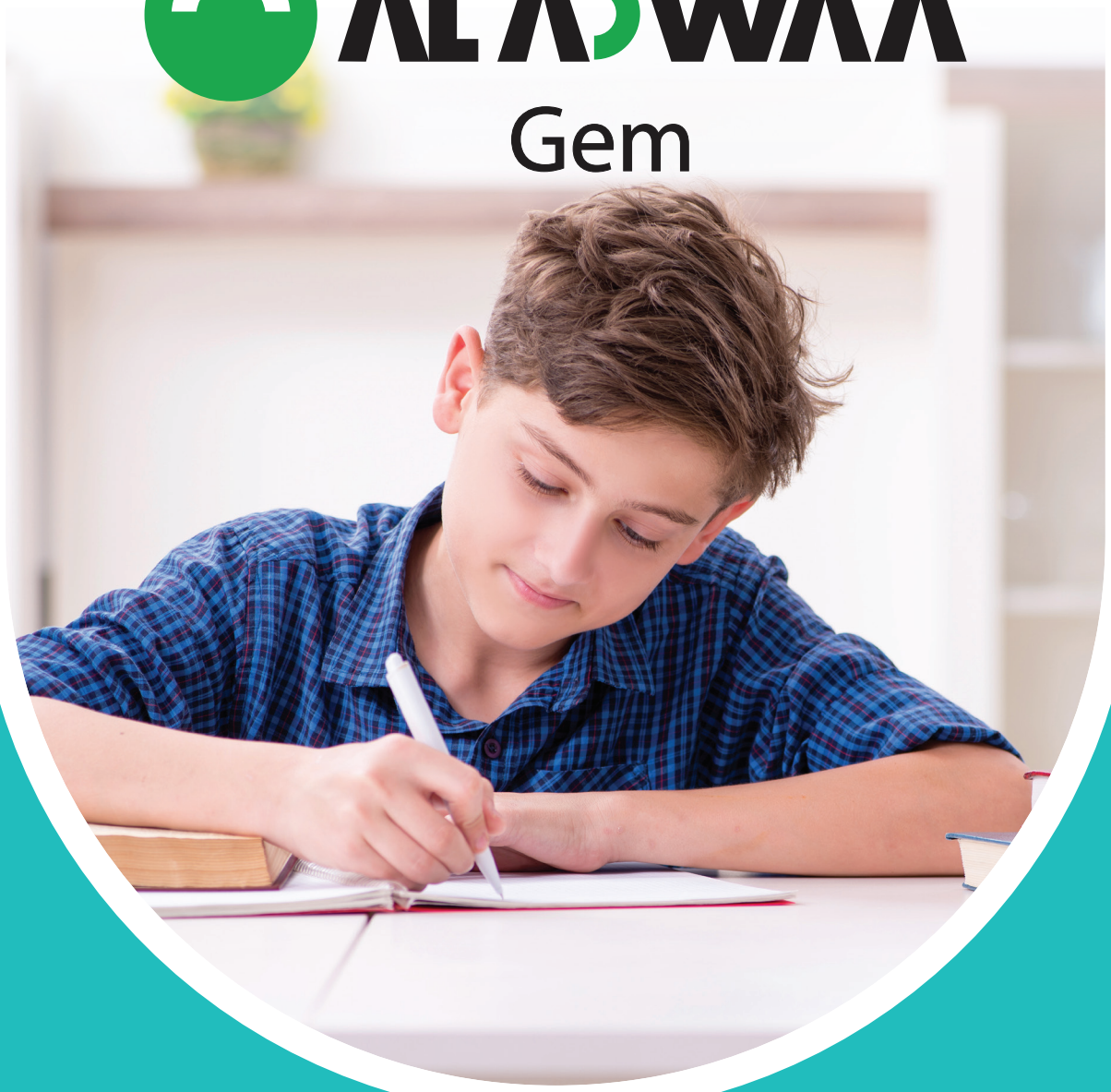
ALAOWAA

Gem



Science

الصف 1 الإعدادى

نماذج اختبارات الأضواء لشهر إبريل

الفصل الدراسى الثانى

2024 - 2025

Model (1)

15 Marks

1 A) Complete the following sentences:

1. ..... is a salt that dissolves in water and has a blue color.
2. The measuring unit of speed is ....., while work is measured in .....

B) 1- What happens when ...?

1. The mass of an object is doubled (relative to its potential energy).

.....

2. The distance that is covered by a moving object is doubled, while the time remains constant. (relative to the speed)

.....

.....

.....

2 A) Choose the correct answer:

1. The mechanical energy of a freely falling object equals ..... at the moment it reaches the ground.

a) its potential energy b) zero

c) its kinetic energy d) the weight of the object

2. Which of the following feeding relationships harms one of the two living organisms?

a) Predation and competition. b) Mutualism and commensalism.

c) Mutualism and predation. d) Predation and commensalism.

B) 1- Give a reason:

1. The mechanical energy of an object remains constant during its falling, although its potential energy decreases.

.....

2. There is no work done when a person carrying a bag while walking horizontally.

.....

2- Compare between potential energy and kinetic energy according to the factors affecting on them:

P.O.C	Potential energy	Kinetic energy
The affecting factors	.....	.....

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Model (2)

15 Marks

1 A) Put (✓) or (✗):

1. The chemical formula of copper sulfate is $CuSO_4$, and its color is green. ( )
2. When a moving object returns to its starting point, its displacement is zero. ( )

B) 1- Write the chemical formula for the following salts that consists of:

1. PO_4^{-3} , K^{+}: .....
2. SO_4^{-2} , Al^{+3}: .....

2- Write the type of nutritional relationship between polar bear and seal:

.....

2 A) Write the scientific term:

1. The total length covered by a moving object from the starting point to the endpoint.

(.....)

2. The amount of energy required to move an object a certain displacement in the same direction of the applied force. (.....)

B) 1- When do the following become equal?

1. Distance and displacement.

.....

2. Potential energy and kinetic energy of a falling object.

.....

2- Calculate the potential energy of a metallic ball with a mass of 2 kg falling from a height of 5 m, given that the gravitational field strength is 10 N/kg.

.....

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Model (3)

15 Marks

1 A) Correct the underlined words:

1 When the speed of a moving object doubles, its kinetic energy increases to <u>double</u>.

(.....)

2 Ammonium chloride solution turns the universal indicator into <u>blue</u>. (.....)

B) 1- What is meant by...?

1 The speed of an object = 100 m/s.

.....

2 The Mechanical energy of an object = 200 j.

.....

2- Compare between scavengers and omnivores according to the way of feeding:

P.O.C	Scavengers	Decomposers
The way of feeding	.....	.....

2 A) Complete the following sentences:

1 Food chains start with ..... and end with .....

2 When an object is thrown upward, its potential energy ..... and its kinetic energy .....

B) 1- What happens when ...?

1 The mass of an object increases to double and its speed decreases to half.

"relative to the kinetic energy"

.....

2 When a moving object returns back to its starting point.

.....

2- Calculate the height of an object with a mass of 6 kg above the ground when its potential energy is 180 J (given that the gravitational field strength is 10 N/kg).

.....

Model (4)

15 Marks

1 A) Write the scientific term:

1. Ionic compounds produced from the reaction between acids and alkalis. (.....)
2. A group of food chains interconnected with each other in the ecosystem. (.....)

B) 1- Mention an example for each of the following:

1. Herbivores animals: .....
2. A salt that doesn't dissolve in water: .....

2- Calculate the time required for a car moving at a speed of 40 m/s to cover a distance of 200 m.

.....

2 A) Choose the correct answer:

1. When a ball is thrown upward, its ..... .

a) kinetic energy increases
b) potential energy decreases
c) speed increases
d) mechanical energy remains constant

2. The kinetic energy of an object with a mass of 5 kg moving at a speed of 2 m/s is ..... .

a) 10 J
b) 20 J
c) 200 J
d) 40 J

B) 1- Give a reason for:

1. The kinetic energy of an object at its maximum height is zero.

.....

2. The potential energy of an object decreases as it falls downward.

.....

2- A body with a mass of 600 g is thrown vertically upward with a speed of 20 m/s. Calculate its mechanical energy at the maximum height.

.....

.....

Model (5)

15 Marks

1 A) Correct the underlined words:

1. Only 1% of the energy is transferred from organisms at one trophic level to organisms at the next level. (.....)
2. The pH value of Na_2CO_3 solution is less than 7. (.....)

B) 1- What is the importance of ...?

1. Bacteria and algae in ecosystem:

.....

.....

2. High dam:

.....



2- Look at the opposite figure, then answer:

- The given diagram shows the motion of a pendulum with a mass of 1 kg, and its kinetic energy at the rest position is 32 J. Calculate its speed at the rest point.

.....

.....

.....

2 A) Put (✓) or (✗):

1. Mutualism is the nutritional relationship between bees and flowers. ( )
2. The work done by a force perpendicular to the direction of an object's motion is maximum. ( )

B) 1- What is meant by ...?

1. The kinetic energy of an object is 20 J.

.....

2. The displacement of an object is 100 m.

.....

.....

2- What is the number that indicates the weight of an object with a potential energy of 88 J at height of 11m?

.....