



Answer the following

الاجابات نهاية الصفحة

Question 1

A Choose the right answer:

1. Spindle fibers appear during the cell division in the.....

- a. telophase.
- b. interphase.
- c. prophase
- d. metaphase.

2. The solar system is located in one of the..... arms of the "milky way" galaxy.

- a. spiral
- b. oval
- c. straight
- d. circular

3. If speed of a car is 72 km/hour this means that his speed equal.... m/sec.

- a. 50
- b. 10
- c. 15
- d. 20

4. When an object acceleration equal zero this means that

- a. the body acceleration is decreasing.
- b. the body speed is variable.
- c. the body acceleration is increasing.
- d. the body speed is uniform.

B Mention one the importance for each of the following:

1. Speedometer.
2. Interphase.

C Show by drawing and write the labels:

The properties of the formed image for an object located in front of a convex lens between the focus and center of curvature.

Question 2 A Write the scientific term:

1. The combination of a male gamete and a female gamete to form a zygote.
2. The total distance covered by the moving object divided by the total time taken to cover the distance.
3. The space which contains all the galaxies, stars, planets and living organisms.
4. A type of asexual reproduction that occurs in simple algae.

B The opposite figure:

Represents one of the phases in a meiotic division

1. What is the name of this phase?
2. Draw the diagram of the following phase?

What is the name of this phase.



C What happens when ...?

1. The liver gets injured or apart of it is cut.
2. Elongation in the ball of the eye more than the normal situation.

Question 3 A Give reasons for:

1. Sexual reproduction is a source of genetic variation.
2. Pilots take in consideration the velocity of the wind.

3. There are no new races (new individual with other trait) of plants, when they reproduce by vegetative reproduction.
4. Displacement is vector physical quantity.

B What is meant by ... ?

1. The displacement of an object is 60 meters in west direction.
2. The distance between the focus of the concave mirror and its pole equal 10 cm.

C Compare between :

1. Acceleration and deceleration (according to definition).
2. The crossing star theory and the modern theory (according solar system was originally).

Question 4

A On a straight line there is a moving bus whose speed changes from 6 meters/sec to 12 meters/second during a period of three second. What is value of acceleration ?

B Rewrite the following statements after correcting the underlined words:

1. If two cars moving in the same direction at the same speed equal 120 m/sec., so the relative speed equal 60 m/sec.
2. The scientist Isaac Newton published a research entitled "world order" and that was in 1796.
3. Mitotic cell division (mitosis) amis to produce gametes.
4. Yeast fungus reproduce asexually by regeneration.

Draw the figure in your answer paper then **complete to obtain virtual, upright and** enlarged image for the object.



Answer the following questions:

Question 1

A Choose the right answer:

1. Spindle fibers appear during the cell division in the.....

- a. **telophase.**
- b. interphase.
- c. prophase
- d. metaphase.

2. The solar system is located in one of the..... arms of the "milky way" galaxy.

- a. spiral
- b. oval
- c. **straight**
- d. circular

3. If speed of a car is 72 km/hour this means that his speed equal.... m/sec.

- a. 50
- b. 10
- c. 15
- d. **20**

4. When an object acceleration equal zero this means that

- a. the body acceleration is decreasing.
- b. the body speed is variable.
- c. the body acceleration is increasing.
- d. **the body speed is uniform.**

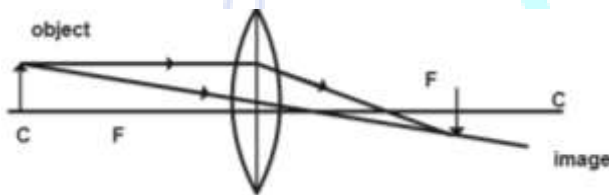
B Mention one the importance for each of the following:

1. Speedometer. **It helps to identify the speed of the car directly**

2. Interphase. **It is happens before cell division where: some important biological processes occur duplicating the genetic material occur**

C Show by drawing and write the labels:

The properties of the formed image for an object located in front of a convex lens between the focus and center of curvature.



Question 2

A Write the scientific term:

1. The combination of a male gamete and a female gamete to form a zygote. **Fertilization**
2. The total distance covered by the moving object divided by the total time taken to cover the distance. **Average speed**
3. The space which contains all the galaxies, stars, planets and living organisms. **The universe**
4. A type of asexual reproduction that occurs in simple algae. **Binary Fission.**

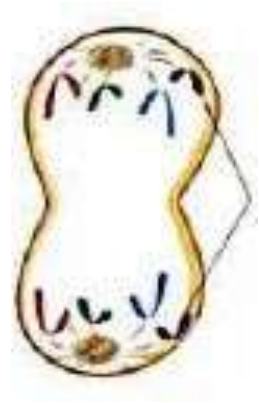
B The opposite figure:

Represents one of the phases in a meiotic division

1. What is the name of this phase? **Metaphase 1**

2. Draw the diagram of the following phase?

What is the name of this phase. **Anaphase 1**



C What happens when ...?

1. The liver gets injured or apart of it is cut. **The remaining cells undergo mitosis, So as to compensate the missing part**
2. Elongation in the ball of the eye more than the normal situation.
Causes short-sightedness

Question 3

A Give reasons for:

1. Sexual reproduction is a source of genetic variation. **Due to the crossing over phenomenon which occurs during meiosis for gametes Formation and also the offspring which resulted obtain their genetic traits From 2 sources and male and female gametes**
2. Pilots take in consideration the velocity of the wind. **To calculate the amount of Fuel necessary to complete the trip, and also the time taken For that**
3. There are no new races (new individual with other trait) of plants, when they reproduce by vegetative reproduction. **Because the vegetative reproduction occur through mitosis, so the offspring resulted are identical in genetic structure to the original plan**

4. Displacement is vector physical quantity. **Because it is necessary to know its magnitude and its direction**

B What is meant by ... ?

1. The displacement of an object is 60 meters in west direction. **The shortest straight Line from the starting point of movement to the ending Point in west direction equals 60 m.**

2. The distance between the focus of the concave mirror and its pole equal 10 cm.

The focal length = 10 cm

C Compare between :

1. Acceleration and deceleration (according to definition).

P.O.S	Acceleration	deceleration
definition	The object speed increases each 2 nd at a constant rate in a specific direction	The object speed decreases each second at a constant rate till it stops

2. The crossing star theory and the modern theory (according solar system was originally).

P.O.S	The crossing star theory	The modern theory
Solar system was originally	The sun	A star rather than the sun

Question 4

A On a straight line there is a moving bus whose speed changes from 6 meters/sec to 12 meters/second during a period of three second. What is value of acceleration ?

$$- a = v_2 - v_1 / t = 12 - 6 / 3 = 2 \text{ m/sec}^2$$

B Rewrite the following statements after correcting the underlined words:

1. If two cars moving in the same direction at the same speed equal 120 m/sec., so the relative speed equal **zero**
2. The scientist **Pierre Simon Laplace** published a research entitled "world order" and that was in 1796.
3. **Meiosis** cell division (Meiosis) aims to produce gametes.
4. Yeast fungus reproduce asexually by **budding**.

Draw the figure in your answer paper then **complete to obtain virtual, upright and enlarged image** for the object.

