

الاجابات نهاية الصفحة

Answer the following questions:

A Complete the following sentences:

1. The solar system is located in one of the..... of the Milky Way on the edge of the galaxy and the Sun takes about..... year to complete one rotation around the center of the galaxy.
2. The spindle fibers in the animal cell is formed from....., while in the plant cell the spindle is composed form the at the cell poles.

B What is the relation between the genetic structure for each of offspring and parents in the following cases:

1. Binary fission in paramecium.
2. The offspring resulting from the sexual reproduction.

C Explain what happens in the following cases:

1. The integration of the male gamete and female gamete.
2. Place the object in front of a concave lens.
3. The object placed in front of a convex mirror.

Question 2

A Write the scientific term of the following sentences:

1. A phase in which some important vital processes occur to prepare the cell for division and the amount of genetic material duplicates.
2. Is the straight line that passes by the pole of the mirror and it's center of curvature.
3. It is the ability of some animals to compensate their missing parts.
4. It is a theory that explains the origin of the universe from a massive explosion since 15000 million years.

B Show by drawing only of the image equal to the object by means of a convex lens.

C Complete the missing in the following table :

Speed (meter/s)	Distance (meter)	Time (second)
.....	100	5
5	10
8	96

Question 3

A Identify the name of the division phase in which the following cases occur :

1. Chromosomes pairs arrange in the cell's equator.
2. Crossing over phenomenon.

B Compare between of the following:

1. Mitosis and meiosis division (purpose only).
2. Average speed and relative speed (concept only).

C Within 2.5 seconds the speed of the car increases from 20 m/sec to 25 m/sec, while a bike moves from the rest and its speed reaches 5 m/sec in one second, which of them moved at a greater acceleration.

Question 4

A Choose the correct answer :

1. The scientist who founds modern theory of the world is.....
 - a. Fred Hoyle.
 - b. Laplace
 - c. Moulten.
2. The two factors in which the movement of an object can be described....

- a. speed and time.
- b. distance and time.
- c. area and time.

3. Property of the image of the object formed by the plane mirror always be.....

- a. larger than the object.
- b. equal to the object.
- c. smaller than the object.

4. A convex lens has a focal length of 50 cm. an object is placed at a distance of 80 cm. from the lens, the image of the object is formed at a distance

- a. greater than 100 cm.
- b. equal to 100 cm.
- c. equal to 50 cm.

B Give reasons for the following:

- 1. The constancy of the planets in their orbits around the Sun.
- 2. The concave lens is used to treat a short-sightedness person.

C When the following occurs... ?

- 1. The object moves at zero acceleration.
- 2. The incident light ray reflects back on itself when falling on a concave mirror.

Question 1

A Complete the following sentences:

1. The solar system is located in one of the... **Spiral arms** ... of the Milky Way on the edge of the galaxy and the Sun takes about...**220 million** ... year to complete one rotation around the center of the galaxy.
2. The spindle fibers in the animal cell is formed from...**Centrosome**., while in the plant cell the spindle is composed form the**condensing the cytoplasm**..... at the cell poles.

B What is the relation between the genetic structure for each of offspring and parents in the following cases:

1. Binary fission in paramecium. **produces offspring identical to their Parents**
2. The offspring resulting from the sexual reproduction.
produces offspring have new genetic traits

C Explain what happens in the following cases:

1. The integration of the male gamete and female gamete. **From a Zygote**
2. Place the object in front of a concave lens. **The formed image is virtual**
3. The object placed in front of a convex mirror. **The formed imagers virtual, smaller and erect**

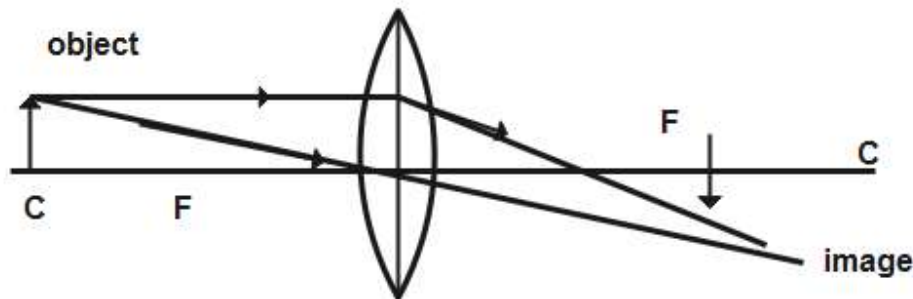
Question 2

A Write the scientific term of the following sentences:

1. A phase in which some important vital processes occur to prepare the cell for division and the amount of genetic material duplicates.
Interphase
2. Is the straight line that passes by the pole of the mirror and it's center of curvature. **The principal axis**
3. It is the ability of some animals to compensate their missing parts.
Regeneration.

4. It is a theory that explains the origin of the universe from a massive explosion since 15000 million years. **Big Bang theory**

B Show by drawing only of the image equal to the object by means of a convex lens.



C Complete the missing in the following table :

Speed (meter/s)	Distance (meter)	Time (second)
..20 m/sec...	100	5
550 meter ...	10
8	9612 Sec...

Question 3

A Identify the name of the division phase in which the following cases occur :

1. Chromosomes pairs arrange in the cell's equator. **Metaphase 1**
2. Crossing over phenomenon. **prophase 1(at its end)**

B Compare between of the following:

1. Mitosis and meiosis division (purpose only). **Mitosis division is important for growth of living organisms and compensation of their damaged cells**

→ **Meiosis division is important for gamete format**

2. Average speed and relative speed (concept only).

Average speed is the total distance covered by the moving object divided by the total time

*** Relative speed is the speed of moving object relative to an observed**

C Within 2.5 seconds the speed of the car increases from 20 m/sec to 25 m/sec, while a bike moves from the rest and its speed reaches 5 m/sec in one second, which of them moved at a greater acceleration.

$$a(\text{ of a car}) = v_2 - v_1 / t = 25 - 20 / 2.5 = 2 \text{ m/sec}^2$$

$$a(\text{ of a bike}) = v_2 - v_1 / t = 5 - 0 / 1 = 5 \text{ m/sec}^2$$

*** the bike mov a greater than a car**

Question 4

A Choose the correct answer :

1. The scientist who founds modern theory of the world is.....

a. **Fred Hoyle.**

b. Laplace

c. Moulten.

2. The two factors in which the movement of an object can be described....

a. speed and time.

b. **distance and time.**

c. area and time.

3. Property of the image of the object formed by the plane mirror always be.....

a. larger than the object.

b. **equal to the object.**

c. smaller than the object.

4. A convex lens has a focal length of 50 cm. an object is places at a distance of 80 cm. from the lens, the image of the object is formed at a distance

- a. greater than 100 cm.
- b. equal to 100 cm.
- c. equal to 50 cm.

B Give reasons for the following:

1. The constancy of the planets in their orbits around the Sun. **Because of the attraction force of the Sun**
2. The concave lens is used to treat a short-sightedness person. **Be cause it diverges the light faye before falling on the eye lens, so the image of the object comes back till it formed exactly on the retina**

C When the following occurs... ?

1. The object moves at zero acceleration. **when the initial speed equal the final speed**
2. The incident light ray reflects back on itself when falling on a concave mirror. **when it passes through the centre of curvature of the mirror**

