Science - ساينس

المنهاج المصري

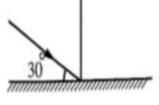
الإجابات نهاية الصفحة

Answer the following questions:

Question 1

A Choose the correct answer:

- 1. If the uniform speed of a car is (90 km/h). This means that the car covers a distance equals..... metres in 40 sec.
- a. 1000
- b. 2000
- c. 2600
- d. 4000
- 2. A light ray that falls on a plane mirror as in the figure it reflects, where the angle of reflection equals......



- a. 30°
- b. 60°
- c. 90°
- d. 50°
- 3. The person with normal vision sees the near objects clearly at a distance not less than
- a. 2 cm.
- b. 25 cm.
- c. 6 m.
- d. 10 m.

- 4. The ratio between the final speed and the initial speed of an object moves at an accelerating motion is
- a. more than 1. b. less than 1.
- c. equal to 1.
- d. equals to zero.
- 5. The earliest life forms began to appear on the Earth after..... million years from the Big Bang.
- a. 3000
- b. 12000
- c. 15000
- d. 17000

B Define each of the following:

- 1. Reproduction by sporogony (spore propagation).
- 2. Fertilization.
- 3. Average speed.

C A train starts to move at 6 O'clock in the morning. Then what is the time of arrival if it moves at speed of 40 Km/h to cover the distance of 200 Km.

Question 2

A Write the scientific term for each of the following:

- 1. The speed of a moving object relatively to a constant or a moving observer.
- 2. The mirror, whose reflecting surface is a part of the inner surface the sphere.
- 3. It contains the Sun and the solar system.
- 4. Asexual reproduction takes place in some plants without needing seeds.

5. A point inside the lens that lies on the principal axis in the mid distance between its faces.

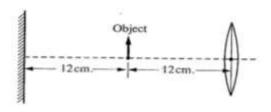
B Give reasons for:

- 1. The object that is placed at the focus of a convex lens has not an image.
- 2. (Distance Time) graph of an object that moves at uniform speed is a straight line passing through the origin point.
- 3. Asexual reproduction in living organisms produces individuals identical in genetic structure.

C In the opposite figure:

An object was placed between a convex lens whose focal length is 6 cm. and a plane mirror. 1- Complete the following statements:

- a. The image formed of the object by a plane mirror at
- a distance of cm. from it's surface.
- b. The image formed of the object by a convex lens at
- a distance ofcm. from it's face



- c. The distance between the image of the object which is formed by a convex lens and the image which is formed by a plane mirror equal..... cm.
- 2- Show by drawing the formed image by the convex lens.

Question 3

A Complete the following sentences:

- 1. In human and animals, meiosis occurs in to produce the male gametes, while it occurs in... to produce the female gametes.
- 2. Physicists use mathematical relations like...... andto predict the relation between certain physical quantities.
- 3. The vision defect which is due to the decrease in the eyeball diameter is called...

and is corrected by....lenses.

4. The two factors which can be used to describe the motion of a body are the.....

and

5. The chemical structure of the chromosome is..... and

B Compare between:

- 1. The real image and the virtual image.
- Crossing star theory and modern theory (according to the name of scientist and the origin of the solar system).

C Show by drawing and write down the labels:

Interphase in mitosis division.

Question 4

A Correct the underlined words:

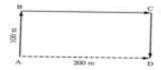
- 1. The spindle fibers are formed in the plant cell from the **centrosome**.
- 2. The car which begins its movement from rest, moves at <u>uniform</u> speed.
- 3. Chromosomes are arranged at the middle of the cell in the **telophase**.
- 4. Contact lenses can stick to **eye iris** and can be removed easily.
- 5. <u>Acceleration</u> is the actual length of the path that a moving object takes from the starting point of movement to the end point.

- **B** 1. Show by drawing and write short notes about: Prophase I in the first meiotic division.
- 2. Show by drawing: The relation between (speed time)

Number of trail	Distance (d) in metre	Time (t) in second	Speed v=d/t (m/s)
1	0.4	5	0.08
2	0.6	7 .50	0.08
3	0.8	10	0.08
4	1.0	12.50	0.08

C In the opposite figure:

Two cars moved at the same time from (A) to (D), the first car takes the pass (ABCD) in 20 sec. and the second car takes the pass (AD) with regular speed 20 m/sec.



- 1. Which of the two cars reach first to point (D).
- 2. Calculate the velocity of the first car.

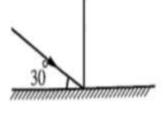


Answer the following questions:

Question 1

A Choose the correct answer:

- 1. If the uniform speed of a car is (90 km/h). This means that the car covers a distance equals..... metres in 40 sec.
- a. 1000
- b. 2000
- c. 2600
- d. 4000
- 2. A light ray that falls on a plane mirror as in the figure it reflects, where the angle of reflection equals......



- a. 30°
- b. 60°
- c. 90°
- d. 50°
- 3. The person with normal vision sees the near objects clearly at a distance not less than

نلهمك لتبدع ...!

- a. 2 cm.
- b. 25 cm.
- c. 6 m.
- d. 10 m.
- 4. The ratio between the final speed and the initial speed of an object moves at an accelerating motion is

- a. more than 1.
- b. less than 1.
- c. equal to 1.
- d. equals to zero.
- 5. The earliest life forms began to appear on the Earth after..... million years from the Big Bang.
- a. 3000
- b. 12000
- c. 15000
- d. 17000

B Define each of the following:

- 1. Reproduction by sporogony (spore propagation).--> It's a type of a sexual reproduction which is more Common in Some fungi such as bread mould, mushroom, where they have Special organs called sporangia, each sporangium. has a large number of spores that release after rupturing of its wall
- 2. Fertilization. It is the combination of gamete with a female gamete w to form a male (~) ·Zygote (2~)
- 3. Average speed. It is represent the regular speed by which the object moves. equal distances at same period time.
- (OR) The total distance covered by moving object divided by the total the time taken to cover this distance

C A train starts to move at 6 O'clock in the morning. Then what is the time of arrival if it moves at speed of 40 Km/h to cover the distance of 200 Km.

Time = =
$$\frac{d}{v}$$
 = = $\frac{200}{40}$ = 5 h.

- The time of arriving = 6 o'clock + 5 o'clock = 11 Am

Question 2

A Write the scientific term for each of the following:

- 1. The speed of a moving object relatively to a constant or a moving observer. **Relative speed**
- 2. The mirror, whose reflecting surface is a part of the inner surface the sphere. **concave mirror**
- 3. It contains the Sun and the solar system. The Milky way galaxy
- 4. Asexual reproduction takes place in some plants without needing seeds. **vegetable reproduction**
- 5. A point inside the lens that lies on the principal axis in the mid distance between its faces. The optical centre of the lens

B Give reasons for:

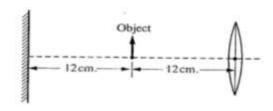
- 1. The object that is placed at the focus of a convex lens has not an image.

 Because the refracting ray doesn't meet and pass through a Parallel way at infinity
- 2. (Distance Time) graph of an object that moves at uniform speed is a straight line passing through the origin point. Because the distance is directly proportional to the time when the object moves at a Constant speed
- 3. Asexual reproduction in living organisms produces individuals identical in genetic structure. Because it occure through a mitotic division as the new individual gets a full genetic copy identical to the parent

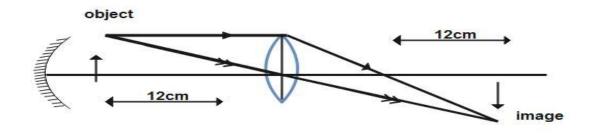
C In the opposite figure:

An object was placed between a convex lens whose focal length is 6 cm. and a plane mirror. 1- Complete the following statements:

- a. The image formed of the object by a plane mirror at a distance of12..... cm. from it's surface.



- c. The distance between the image of the object which is formed by a convex lens and the image which is formed by a plane mirror equal...48... cm.
- 2- Show by drawing the formed image by the convex lens.



Question 3

A Complete the following sentences:

- 1. In human and animals, meiosis occurs in Testes –.... to produce the male gametes, while it occurs in... ovaries. to produce the female gametes.
- 2. Physicists use mathematical relations like..... tables...... and graphsto predict the relation between certain physical quantities.
- 3. The vision defect which is due to the decrease in the eyeball diameter is called... long sightedness and is corrected by.. Convex ..lenses. -
- 4. The two factors which can be used to describe the motion of a body are the... **distance**.. and**time**
- 5. The chemical structure of the chromosome is... **nuclear and (DNA)**... and ... **protein**..

B Compare between:

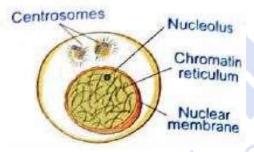
1. The real image and the virtual image.

Real image	Virtual Image
It can be received On a Screen	It can't be recieved on a

Crossing star theory and modern theory (according to the name of scientist and the origin of the solar system).

D.O-C	crossing star theory	Modern theory
The Founder	chamberlain and Moulton	. Fred Hoyle
The origin of solar system	The sun	A star rather the sun.

C Show by drawing and write down the labels:



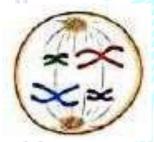
Interphase in mitosis division.

Question 4

A Correct the underlined words:

1. The spindle fibers are formed in the plant cell from the **condensing the cytoplasm in the 2 cell poles**

- 2. The car which begins its movement from rest, moves positive acceleration.
- 3. Chromosomes are arranged at the middle of the cell in the metaphase.
- 4. Contact lenses can stick to **eye cornea** and can be removed easily.
- 5. <u>Distance</u> is the actual length of the path that a moving object takes from the starting point of movement to the end point.
- **B** 1. Show by drawing and write short notes about: Prophase I in the first meiotic division.

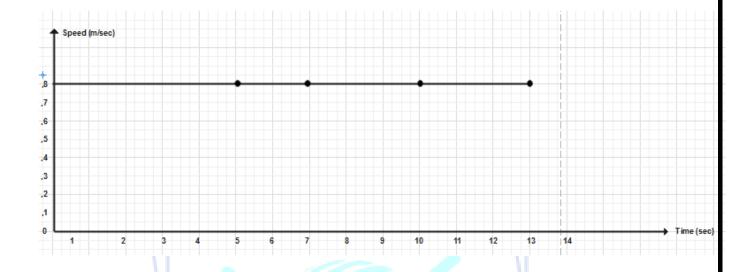


Prophase 1

chromatin reticulum condenses and appears in the form of distinct chromosomes.

- -chromosomes are arranged in homologous pairs, each pair called tee
- -As its end nucleolus and nuclear membrane disappear
- 2. Show by drawing: The relation between (speed time)

Number of trail	Distance (d) in	Time (t) in	Speed v=d/t
	metre	second	(m/s)
1	0.4	5	0.08
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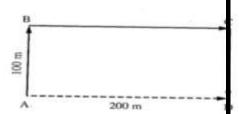


C In the opposite figure:

Two cars moved at the same time from (A) to (D),

the first car takes the pass (ABCD) in 20 sec.

and the second car takes the pass (AD) with regular speed 20 m/sec.



1. Which of the two cars reach first to point(D). The time that the second car takes.

$$\underline{\mathbf{t}} = \frac{d}{v} = \frac{200}{2} = \mathbf{10Sec.}$$

: The second car reaches to point (D) first

2. Calculate the velocity of the first car.

velocity of it care displacement $=\frac{\text{displacement}}{\text{time}} = \frac{200}{2} = 10 \text{ m/sec}$