**Date: / / .** Name: .

**3rd Prep. Science Test 1**

**[1] Give reason for:**

1. The importance of speedometer in cars and planes.

…………………………………………………………………………………………………………………………

2. The movement of the train can be considered as a motion in one direction.

…………………………………………………………………………………………………………………………

[2] Boing plane (747) travelled from Aswan airport to Cairo airport through one hour, it covered a distance of 1000Kms. Calculate the reading of speedometer by (Km/hr and by m/sec.) Given that the plane moves by constant speed.

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[3] One of the foxes attacked a deer at rest. It the speed of the fox is 120Km/hr,

Calculate the distance by km and meters covered by the fox to catch the deer , if the time taken is 10 sec.

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**Date: / / .** Name: .

**3rd Prep. Science Test 2**

**[1] Give reason for:**

1. It's difficult practically to make uniform (constant) speed.

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2. The moving car with a certain speed seems to be at rest to the moving observer with the same speed and same direction.

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[2] Two trains move in two parallel different ways in opposite directions;

If the speed of the first train 60 Km/hr and the second moves by speed 10km/hr.

Calculate the velocity of the first train that observed by passengers in the second train.

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**[3] What is meant by:**

1. The average speed of a moving car = 60Km/hr.

…………………………………………………………………………………………………………………………

**Date: / / .** Name: .

**3rd Prep. Science Test 3**

[1] A driver used the brake to stop the car moved by 20 m/sec. Calculate the time taken by the car to stop after moving 200m.

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[2] If a boat starts to move from rest till its speed becomes 2.5m/sec. through 5sec. Find:

a. The acceleration of the moving boat.

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b. The type of acceleration, give reason.

…………………………………………………………………………………………………………………………………….

[3] A race car move from rest position and its speed reaches 100 Km/hr. through 20 seconds. Calculate the acceleration of the car.

…………………………………………………………………………………………………………………………………….

[4] A car moves with speed 80m/s. If the driver used the brakes to decrease the speed so it decreased by 2m/s2.

Calculate its speed after 12 seconds from using the brakes.

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[5] Show by graphical drawing the relation between (velocity – time) which represents the following cases;

1. A body moves with uniform speed 60 Km/hr. 2. A body moves with uniform acceleration motion 15 m/s2

**Date: / / .** Name: .

**3rd Prep. Science Test 4**

**[1] Complete:**

1. When a body lies in front of a concave mirror at a distance of …………………… from its focal length, a real, smaller and …………. Image is formed.

[2] Compare between convex mirror and concave mirror

(focal length – center of curvature – way to form virtual image)

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[3] Show by experiment; determination of the focal length of a concave mirror.

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**Date: / / .** Name: .

**3rd Prep. Science Test 5**

[1] A body of length 4cm at a distance of 6cm from convex lens, its focal length is 3cm.

a. Draw a diagram to show the path of the rays falling on the lens and the refracted ones from it.

b. Mention the properties of the image formed.

c. Showing the length of the image and the radius of the lens.

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[2] Show by drawing only; the type and the role of length used to treat the shortsightedness.

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**Date: / / .** Name: .

**3rd Prep. Science Test 6**

**[1]** Compare between Nebula theory and crossing star theory.

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**Date: / / .** Name: .

**3rd Prep. Science Test 7**

**[1]** Compare between mitosis cell division and meiosis cell division according to:

a. The place of occurrence.

b. The number of chromosomes in the resulted cells.

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**[2] Write the scientific term:**

1. The point of connection of the two chromatids together.

{ …………………………………………….. }

2. The cells produced from meiosis cell division and contains half number of chromosomes.

{ ………………………………………………… }

**[3] Complete:**

1.The spindle fibers are formed during the cell division in ……………… phase and disappear in the …………….. phase.

2. The nuclei disappear during mitosis cell division in ………………………………. Phase.

3. The arrangement of the chromosomes pairs in the first prophase in the line …………….. the cell.

**Date: / / .** Name: .

**3rd Prep. Science Test 8**

**[1] Define the fertilization**:

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

**[2] Give reason for:**

1. Asexual reproduction produces offspring identical to their parent.

…………………………………………………………………………………………………………………………………………………………………………………………

**[3] Explain** relation between the hereditary structure of offspring and parents in the case of sexual reproduction and asexual reproduction.

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**[4] Complete;**

1. The ability of some animals to compensate the missing parts is called ……………………………………………..