**Cairo Governorate Science October Rivision**

A M S

**Alsun Modern School**

**East Nasr City Administration 3rd prep**

**Alsun Modern School Name:……………………….……………**

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

1. The phenomenon of the light bouncing off in the same medium when it meets the reflecting surface. […………………………………………..]

2. The point at which the rays which are incident parallel to each other and parallel to the principle axis of the concave mirror are collected.[…………………………………………]

3. The speed of the moving body relative to the observer.[……………………………………]

**[2] What is meant by (Vector physical quantity):**

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

**[3] The following table illustrates some results recorded for a car moving at a regular speed:**

|  |  |  |
| --- | --- | --- |
| Distance (m) | Time (sec) | Speed (m/s) |
| 50 | (a) | 100 |
| (b) | 2 | ( c ) |

1. Complete the missing parts.

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

1. Calculate the acceleration of the car.

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

**[4] Choose the correct answer:**

1. To form a real , inverted and equal image of an object placed in front of a concave mirror whose radius of curvature equals 50 cm., the object should be put at a distance of ………………………….. cm.

**a. 25 b. 50 c. 35 d. 12**

2. The displacement is a physical quantity whose measurement unit is ……………………

**a. m b. m/s c. m/s2 d. m.s**

3. 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. 45 d. 90**

4. If the value of the V = this means that the speed is …………………………..

**a. increasing b. vanishing c. average d. decreasing**

5. On putting an object in front of a plane mirror, the ratio between the length of the image and the length of the object is ………………………

**a. > 1 b. < 1 c. = 1 d. no correct answer**

6. Which of the following graphical relations represents the moving of a body by uniform acceleration? ……………………………

**a. b. c.**

**[5] Give reason for:**

1. A convex mirror is placed at the left and the right of the driver of the car.

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

2.Pilots take in consideration the velocity of the wind.

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

**[6] problem;**

[1] On a straight line there is a moving bus whose speed changes from 60 m/sec. to 120 m/sec. during a period of 30 sec. What is the value of acceleration? And mention its type.

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[2] The opposite graph represent the movement of a body from point (A) to point (C) passing by point (B). Calculate:

1. its velocity: …………………………………………………………………………………………………….

2. Its speed: ……………………………………………………………………………………………………..

3. The acceleration which it moves with between (AB):

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

[3] A train moves by a speed 20m/sec. with uniform deceleration 2m/sec2. If brake is applied. Find the time taken to stop the train.

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

[4] If the angle between the incident light ray and the reflected light ray on a plane mirror = 120. Calculate the angle of incidence.

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

**[7] Complete:**

1. The radius of curvature of the concave mirror equals ………………… of its focal length.

2. ……………………… is defined as covered distance within a unit time.

3. Mass is a ………………… physical quantity.

4. The velocity is the …………………………………………………..…………. In one second.

5. The straight line that passes by the mirror and its center of curvature is ……………………………………………………

6. ……………………. Is the quantity that its magnitude only is necessary for identifying it.

7. The incident light ray parallel to the principle axis of the concave mirror. It will reflect and passing through ………………………………………..

8. The measuring of relative speed depends on ………………………………

**[8] Compare between:**

**1. real image and virtual image: ( according to definition).**

|  |  |
| --- | --- |
|  |  |
| …………………………………………………………..  ………………………………………………………….  ………………………………………………………… | …………………………………………………………..  …………………………………………………………..  ………………………………………………………….. |

**2.Speed & Velocity : ( related to concept )**

|  |  |
| --- | --- |
|  |  |
| ……………………………………………………………  …………………………………………………………..  …………………………………………………………. | ………………………………………………………..  ………………………………………………………….  …………………………………………………………. |

**[9] What happens when ……………. ?**

1. A car driver presses on the brake for stopping after a certain time.

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

**[10] Correct underlined words :**

1. In the opposite figure, the angle of reflection equals 180.

2. Whenmoving object covers equal distances in equal periods of time, it is said that it is moving with irregular speed.

3. If the uniform speed of a car is 72km/hr., this means that its speed equals 25m/sec.