This is a Class 1 exam

Lebanon Evangelical School for Boys and Girls

Lebanon Evangelical School
for Boys and Girls Loueizeh - Baabda

Stage Exam 02

26MAR2025

Do NOT write in this box. Your MARK will be placed here.

Subject :	Physics
Class :	7B and 7E
Teacher :	Hazar Al Gharib
Duration :	1 hour

Please write your answers on a separate sheet of paper NOT on the question sheet.

You are to answer the questions to this exam on : Lined paper

Your name :		*Time taken to complete exam*
Your Class :		
Exam Room :		
How many sheets, including cover sheet :		

- Do not open this paper until the teacher in charge instructs you to do so.
- The most important thing to remember in taking an exam is NEVER PANIC.
- If you are caught cheating in this exam, you will be awarded zero for ALL exams that are taken on this day.

Remark: This exam is composed of 5 pages; make sure to solve them all.

Please write all your answers on a separate paper.

I- Identify the letter of the choice that best completes or answers the statement. (1pt. each)

1. A measure of how fast or slow something is moving.

A. direction
B. speed
C. force
D. pull

2. The measure of how far an object travels.

A. motion
B. displacement
C. distance
D. push

3. When there is no force on an object, it:

A. does not move if at rest
B. does not change direction
C. continues in the same speed if moving
D. All of the choices

4. A force away from you.

A. gravity
B. speed
C. push
D. magnet

5. Scalar quantities have magnitude but no direction. Which of the following is a scalar quantity?

A. acceleration
B. force
C. speed
D. velocity

II- Put the right term for each given definition. (1pt. each)

1. The measure of the force of gravity on an object.
2. The type of force in which magnetic force is an example.
3. The SI unit of speed.
4. A change in position relative to a reference point.
5. The point where the force is applied.

III- Indicate whether the sentence or statement is true or false. If false, change the underlined word or phrase to make the sentence or statement true. (1pt. each)

1. When a force is balanced, there is no change in motion.
2. Friction makes objects move faster.
3. A force can change an object's motion.
4. Heavier objects require less force to move.
5. One way to measure distance is by a thermometer.
6. Speed is calculated using the distance traveled over the time it takes to travel.

IV- Read each sentence and indicate the effect of the applied forces on the motion or the shape of the objects. (1pt. each)

1. catch a ball
2. hit a moving ball with a bat
3. kick a ball
4. use your brakes
5. squeeze clay
6. pedal harder

V- Match each force with its description. (1pt. each)

Friction – Gravity – Air resistance – Electrostatic force - Weight

a. the force that pulls objects with masses together

b. the force that resists motion

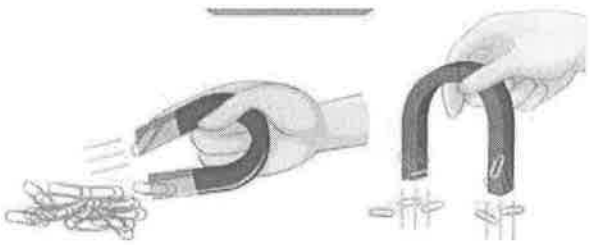
c. the force that slows down a falling object

d. the pull of gravity on an object towards Earth

e. the force that pulls together charged objects

VI- Indicate whether each of the following forces is contact or non-contact. (1pt. each)

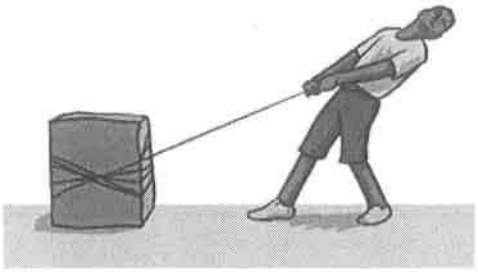
1.



2.



3.



4.



5.



6.

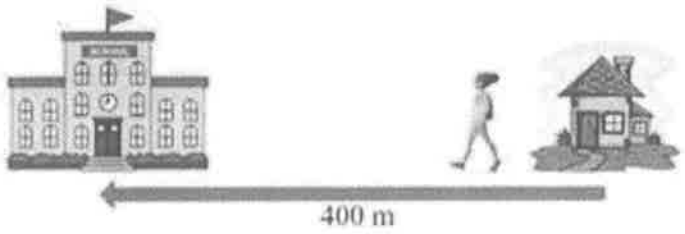


VII- For each of the following statements, say whether it is a distance, a displacement, a speed, a velocity or an acceleration. (1pt. each)

1- A jeep driving 90km/h East.
2- A motorbike slowing down at the stop sign.
3- A school bus moving at 20km per hour.
4- A boat covering 300m North.
5- An airplane travelling 550 miles per hour towards France.
6- A snail crawling 2 meters in 2 hours.
7- A train increasing its speed as it leaves the station.

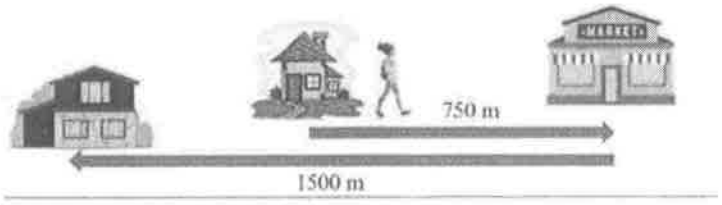
VIII- Observe the figures below and answer the following questions. (1pt. each)

A- Lucie walked 400m West from her house to the school.



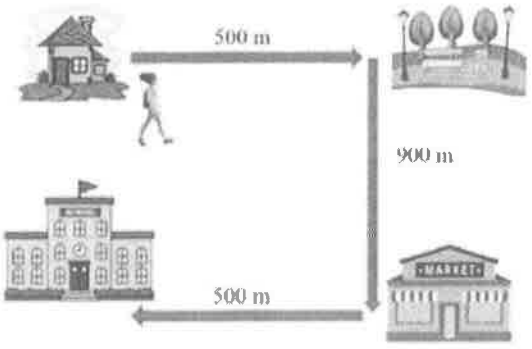
1- What is the distance she covered?
2- What is her displacement?

B- Lucie walked 750m East to the Market, then 1500m West to her grandmother's house.



True or False. Do not correct the false statements.
1- The total distance covered is 750m.
2- The displacement of Lucie is 750m East.

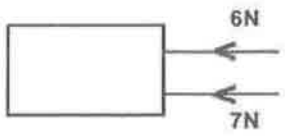
C- Lucie walked 500m East from her house to the park, then walked 900m South to the store, then turned and walked another 500m West to the school.



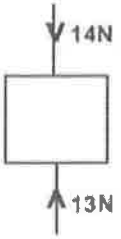
1- What is the total distance she covered?
2- What is her total displacement?

IX- Find the net force in each example. Show your work. (1pt. each)

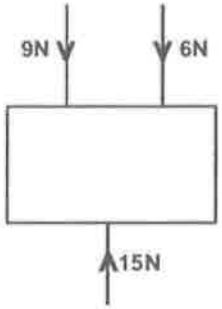
a)



b)



c)



d)



X- Calculation problems. Show your work. (4pts. each)

1- A car has a mass of 500kg.
   a- What is its weight on Earth? (take g = 10m/s^2)
   b- What will be its weight on Venus? g(Venus) = 8.9N/kg.
   c- What will be its mass on Mars?

2- A cyclist left his house travelling at a speed of 4m/s.
   a- It took him 15 seconds to realize that he had left the front door unlocked. How far away from his house had he travelled?
   b- He decided to go back home as fast as he could and moved with a speed of 6m/s. How much time did he need to get home?
   c- At the moment he arrived home, what was his displacement?
   d- Bonus: Find the average speed of his entire trip.

SE02/20242025/Physics/TBE /80 16 min.

I. (5)
1. B
2. C
3. D
4. C
5. C

II. (5)
1. Weight
2. Non-contact force
3. meter/second (m/s)
4. motion
5. Point of application

III. (6)
1. True
2. False, slower
3. True
4. False, more
5. False, a ruler
6. True

IV. (6)
1. stop the motion
2. Change direction
3. Start motion
4. slow down
5. change shape
6. speed up.

V. (5)
a. Gravity
b. Friction
c. Air resistance
d. weight
e. electrostatic force

VI. (6)
1. non-contact
2. Contact
3. Contact
4. Contact
5. non-contact
6. Contact

VII. (7)
1. Velocity
2. acceleration
3. speed
4. displacement
5. velocity
6. speed
7. acceleration.

(2)

VIII. A.1. distance is 400 m.
2. displacement is 400m West.

B. 1. False (2)
2. False

C. 1900 m (2)
2. 900 m South

IV. a) 6+7 = 13 N left 4 pts. each
b) 14-13 = 1N down
c) (9+6) - 15 = 0N Balanced
d) (4+6) - (5+5) = 0N Balanced.

I. 1. a. $w = m \times g$ 4pts.
$= 500kg \times 10m/s^2$
$= 5000\ N$

b. $w = m \times g$ 4pts.
$= 500kg \times 8.9\ N/kg$
$= 4,450\ N$

c. The mass doesn't change with change in location; thus, its mass on Mars is 500 kg. (1)

2. a. $d = s \times t$ 4pts.
$= 4m/s \times 15s$
$= 60\ m.$

b. $t = \frac{d}{s} = \frac{60m}{6m/s} = 10s$ 4pts.

c. Since the starting and ending points are the same, his displacement is 0. (1)

Bonus d. Avg. Speed = $\frac{\text{total distance}}{\text{total time}}$ (2)

$= \frac{60m + 60m}{15s + 10s} = \frac{120m}{25s} = 4.8\ m/s$