

# Physics

Scientific Notation, Form: A

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Period: \_\_\_\_\_

Primary Peer Reviewer: \_\_\_\_\_

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## Section 1. Multiple Choice

*Choose the best answer to each question.*

- What is  $(2 \times 10^3)(6 \times 10^{-7})$  in proper scientific notation?
  - $1.2 \times 10^{-3}$
  - $12 \times 10^{-4}$
  - $8 \times 10^{21}$
  - $4 \times 10^{-10}$
- Given the equation  $A = \frac{B}{C}$ , which equation has been properly solved for C?
  - $C = A \times B$
  - $C = \frac{A}{B}$
  - $C = \frac{B}{A}$
  - $C = A + B$
- A toy travels at a speed of 0.325 m/s for 17 seconds. How far does the toy travel?
  - 0.019 m
  - 5.525 m
  - 17 m
  - 52.308 m

## Section 2. Multiple Correct Multiple Choice

*For the following question, **choose two** correct answers. No credit will be given for incorrect or partially correct answers. Mark **both** answers clearly.*

- Which of the following are vectors?
  - Distance
  - Velocity
  - Speed
  - Displacement
  - Temperature

## Section 3. Free Response

5. The flag of the Mughal Empire contains a green triangle with a lion and a white triangle, as shown in the picture. The length of the flag is 320 cm long and it is 213 cm tall. A ladybug starts at the top left corner of the flag and walks across the top of the flag, then turns and walks down the right side. The total time this takes is 90 seconds. What are the **distance** the ladybug traveled and **displacement** of the ladybug?



# Answer Key for Exam A

## Section 1. Multiple Choice

*Choose the best answer to each question.*

1. What is  $(2 \times 10^3)(6 \times 10^{-7})$  in proper scientific notation?  

(a)  $1.2 \times 10^{-3}$

(b)  $12 \times 10^{-4}$

(c)  $8 \times 10^{21}$

(d)  $4 \times 10^{-10}$
2. Given the equation  $A = \frac{B}{C}$ , which equation has been properly solved for C?  

(a)  $C = A \times B$

(b)  $C = \frac{A}{B}$

(c)  $C = \frac{B}{A}$

(d)  $C = A + B$
3. A toy travels at a speed of 0.325 m/s for 17 seconds. How far does the toy travel?  

(a) 0.019 m

(b) 5.525 m

(c) 17 m

(d) 52.308 m

## Section 2. Multiple Correct Multiple Choice

*For the following question, **choose two** correct answers. No credit will be given for incorrect or partially correct answers. Mark **both** answers clearly.*

4. Which of the following are vectors?  

(a) Distance

(b) Velocity

(c) Speed

(d) Displacement

(e) Temperature

## Section 3. Free Response

5. The flag of the Mughal Empire contains a green triangle with a lion and a white triangle, as shown in the picture. The length of the flag is 320 cm long and it is 213 cm tall. A ladybug starts at the top left corner of the flag and walks across the top of the flag, then turns and walks down the right side. The total time this takes is 90 seconds. What are the **distance** the ladybug traveled and **displacement** of the ladybug?

