

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

PHYSICAL SETTING  
PHYSICS

Wednesday, June 22, 2005 — 1:15 to 4:15 p.m., only

ANSWER SHEET

Student Waves & Sound Key Sex: ☐ Male ☐ Female Grade .....

Teacher ..... School .....

Record your answers to Part A and Part B-1 on this answer sheet.

Part A

- |          |          |          |          |
|----------|----------|----------|----------|
| 1 ... 3  | 13 ... 1 | 25 ... 2 | 37 ... 1 |
| 2 ... 1  | 14 ... 3 | 26 ... 3 | 38 ... 3 |
| 3 ... 1  | 15 ... 2 | 27 ... 3 | 39 ... 4 |
| 4 ... 2  | 16 ... 3 | 28 ... 2 | 40 ... 2 |
| 5 ... 4  | 17 ... 1 | 29 ... 4 | 41 ... 3 |
| 6 ... 4  | 18 ... 4 | 30 ... 2 | 42 ... 1 |
| 7 ... 3  | 19 ... 2 | 31 ... 4 | 43 ... 1 |
| 8 ... 1  | 20 ... 2 | 32 ... 4 | 44 ... 2 |
| 9 ... 4  | 21 ... 4 | 33 ... 1 | 45 ... 2 |
| 10 ... 3 | 22 ... 4 | 34 ... 4 | 46 ... 4 |
| 11 ... 2 | 23 ... 1 | 35 ... 4 |          |
| 12 ... 2 | 24 ... 3 | 36 ... 2 |          |

Part A Score

Part B-1

- |          |          |
|----------|----------|
| 47 ... 1 | 57 ... 4 |
| 48 ... 2 | 58 ... 1 |
| 49 ... 3 | 59 ... 2 |
| 50 ... 2 |          |
| 51 ... 4 |          |
| 52 ... 3 |          |
| 53 ... 2 |          |
| 54 ... 2 |          |
| 55 ... 3 |          |
| 56 ... 1 |          |

Part B-1 Score

Write your answers to Part B-2 and Part C in your answer booklet.

The declaration below should be signed when you have completed the examination.

I do hereby affirm, at the close of this examination, that I had no unlawful knowledge of the questions or answers prior to the examination and that I have neither given nor received assistance in answering any of the questions during the examination.

Signature

# PHYSICAL SETTING PHYSICS

## ANSWER BOOKLET

Student ..... Sex: ☐ Male  
☐ Female  
Teacher .....  
School ..... Grade .....

Answer all questions in Part B-2 and Part C. Record your answers in this booklet.

Part	Maximum Score	Student's Score
A	46	
B-1	13	
B-2	14	
C		

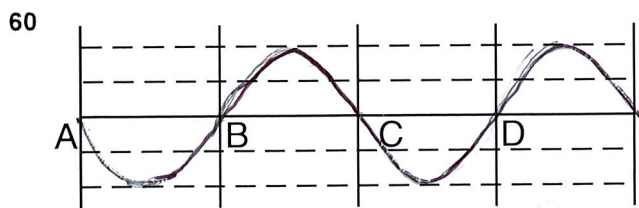
Total Written Test Score  
(Maximum Raw Score: 85)

Final Score  
(From Conversion Chart)

Raters' Initials:  
Rater 1 ..... Rater 2 .....

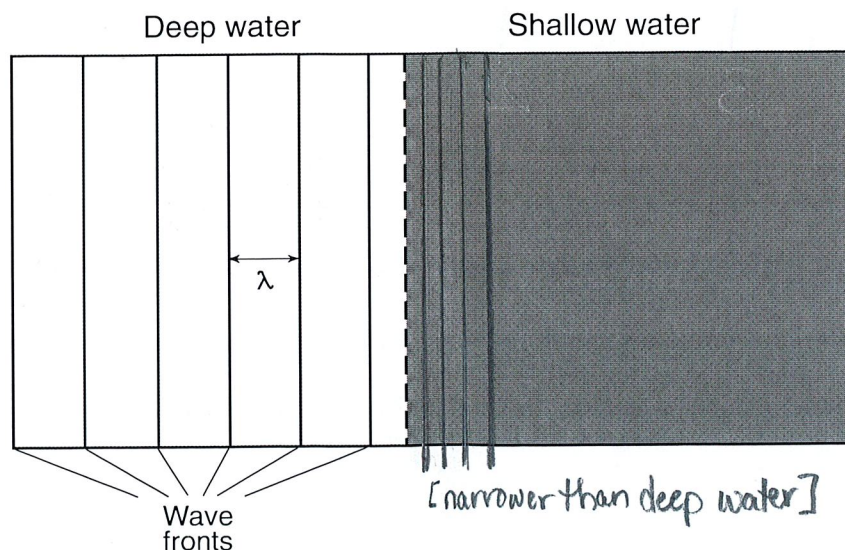
### Part B-2



61 3.2 m  $\frac{8m}{2.5 waves}$

62 .6 m

63



64-65

$$\frac{G}{t=5s}$$

$$\frac{U}{f}$$

$$T=5s$$

$$f = \frac{1}{T}$$

$$f = \frac{1}{5s}$$

$$f = .2 \text{ Hz}$$

66-67

$$\frac{G}{\lambda=2m}$$

$$\frac{U}{v}$$

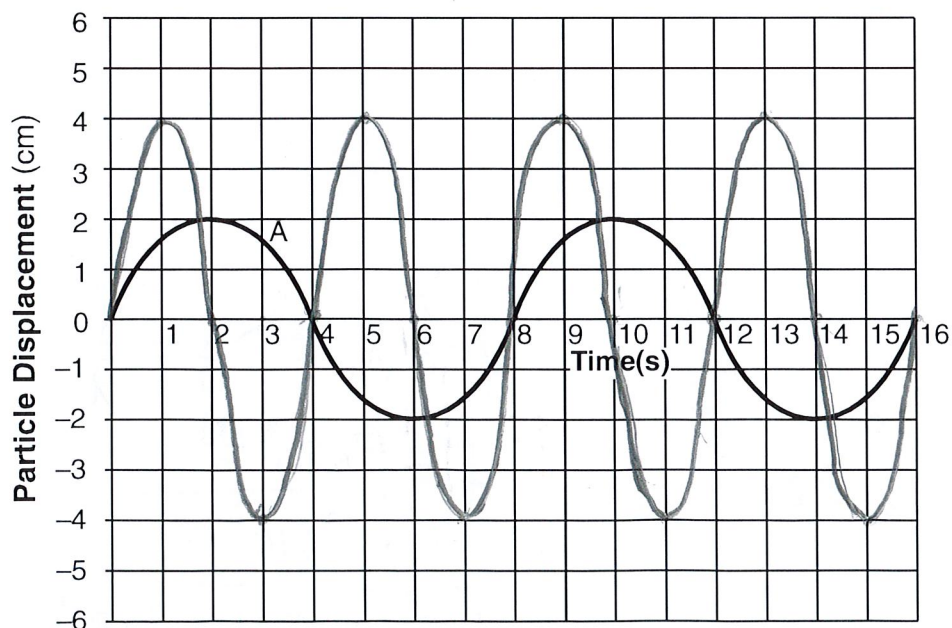
$$f = .2 \text{ Hz}$$

$$v = f \lambda$$

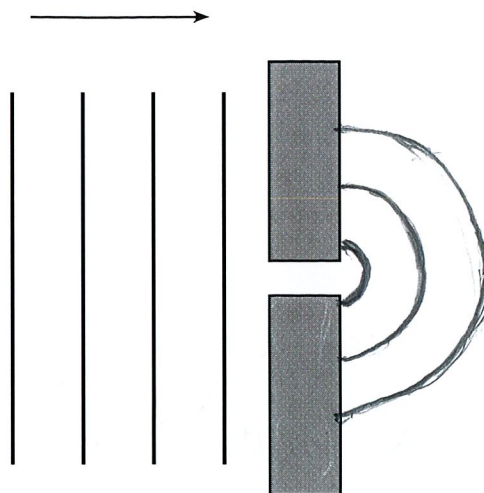
$$v = (.2 \text{ Hz})(2m)$$

$$v = .4 \text{ m/s}$$

68-69



70



71



72-73

$$\frac{G}{\lambda = 2 \times 10^{-2} \text{ m}}$$

$$v = c = 3 \times 10^8 \frac{\text{m}}{\text{s}}$$

$$\frac{v}{f}$$

$$v = f\lambda \Rightarrow f = \frac{v}{\lambda}$$

$$f = \frac{3 \times 10^8 \frac{\text{m}}{\text{s}}}{2 \times 10^{-2} \text{ m}}$$

$$f = 1.5 \times 10^{10} \text{ Hz}$$