

# PHYSICAL SETTING CHEMISTRY

Thursday, January 27, 2011 — 1:15 to 4:15 p.m., only

## ANSWER BOOKLET

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

Answer all questions in this examination. Record your answers in this booklet.

Part	Maximum Score	Student's Score
A	30	
B-1	20	
B-2	16	
C	19	
Total Written Test Score (Maximum Raw Score: 85)		<input type="text"/>
Final Score (from conversion chart)		<input type="text"/>
Raters' Initials:		
Rater 1 .....		Rater 2 .....

### Part A

- |          |          |          |
|----------|----------|----------|
| 1 .....  | 11 ..... | 21 ..... |
| 2 .....  | 12 ..... | 22 ..... |
| 3 .....  | 13 ..... | 23 ..... |
| 4 .....  | 14 ..... | 24 ..... |
| 5 .....  | 15 ..... | 25 ..... |
| 6 .....  | 16 ..... | 26 ..... |
| 7 .....  | 17 ..... | 27 ..... |
| 8 .....  | 18 ..... | 28 ..... |
| 9 .....  | 19 ..... | 29 ..... |
| 10 ..... | 20 ..... | 30 ..... |

Part A Score

### Part B-1

- |          |          |
|----------|----------|
| 31 ..... | 41 ..... |
| 32 ..... | 42 ..... |
| 33 ..... | 43 ..... |
| 34 ..... | 44 ..... |
| 35 ..... | 45 ..... |
| 36 ..... | 46 ..... |
| 37 ..... | 47 ..... |
| 38 ..... | 48 ..... |
| 39 ..... | 49 ..... |
| 40 ..... | 50 ..... |

Part B-1 Score

The declaration below must 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

Part B-2

For Raters  
Only

51 \_\_\_\_\_

51

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52 \_\_\_\_\_

52

\_\_\_\_\_

\_\_\_\_\_

53

53

54 \_\_\_\_\_ g

54

55 \_\_\_\_\_

55

**For Raters  
Only**

56 \_\_\_\_\_  
\_\_\_\_\_

56

57 \_\_\_\_\_

57

58 \_\_\_\_\_ M

58

59 \_\_\_\_\_ and \_\_\_\_\_

59

60 \_\_\_\_\_

60

61 \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

61

**For Raters  
Only**

62 \_\_\_\_\_

62

\_\_\_\_\_

63 \_\_\_\_\_

63

\_\_\_\_\_

64

64

\_\_\_\_\_ M

65 \_\_\_\_\_

65

**Total Score  
for Part B-2**

**Part C**

**For Raters Only**

66 \_\_\_\_\_

66

\_\_\_\_\_

\_\_\_\_\_

67 \_\_\_\_\_

67

\_\_\_\_\_

68 \_\_\_\_\_

68

\_\_\_\_\_

\_\_\_\_\_

69  $\text{H}_3\text{C}_6\text{H}_5\text{O}_7(\text{aq}) + 3\text{NaHCO}_3(\text{aq}) \rightarrow \text{Na}_3\text{C}_6\text{H}_5\text{O}_7(\text{aq}) + 3\text{CO}_2(\text{g}) + 3$  \_\_\_\_\_  $(\ell)$

69

70 \_\_\_\_\_

70

\_\_\_\_\_

71 \_\_\_\_\_ mol

71

72 \_\_\_\_\_

72

\_\_\_\_\_

73 \_\_\_\_\_ and \_\_\_\_\_

73

74 \_\_\_\_\_

74

**For Raters  
Only**

75 \_\_\_\_\_

75

76 \_\_\_\_\_

76

77

77

\_\_\_\_\_ %

78 \_\_\_\_\_

78

\_\_\_\_\_

\_\_\_\_\_

79 \_\_\_\_\_

79

80 \_\_\_\_\_

80

81 \_\_\_\_\_

81

82 \_\_\_\_\_

82

83 \_\_\_\_\_

83

\_\_\_\_\_

**Total Score  
for Part C**



