Practice Test #1 KEY

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| **PART 2** |
| **#** | **Ans** | **#** | **Ans** |
| 1 | B | 14 | E |
| 2 | C | 15 | D |
| 3 | E | 16 | C |
| 4 | B | 17 | C |
| 5 | B | 18 | B |
| 6 | E | 19 | A |
| 7 | D | 20 | B |
| 8 | B | 21 | D |
| 9 | A | 22 | A |
| 10 | D | 23 | E |
| 11 | C | 24 | C |
| 12 | D | 25 | B |
| 13 | A |  |  |

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| **PART 3** |
| **#** | **Ans** | **#** | **Ans** |
| 1 | E | 11 | A |
| 2 | B | 12 | D |
| 3 | D | 13 | B |
| 4 | C | 14 | C |
| 5 | A | 15 | E |
| 6 | B | 16 | A |
| 7 | C | 17 | B |
| 8 | D | 18 | C |
| 9 | A | 19 | D |
| 10 | E | 20 | E |

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| **PART 1** |
| **#** | **Ans** | **#** | **Ans** |
| 1 | E | 11 | B |
| 2 | C | 12 | A |
| 3 | C | 13 | C |
| 4 | D | 14 | A |
| 5 | B | 15 | D |
| 6 | E | 16 | C |
| 7 | B | 17 | B |
| 8 | C | 18 | C |
| 9 | B | 19 | B |
| 10 | E | 20 | B |

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| **PART 4** |
| **#** | **Ans** | **#** | **Ans** |
| 1 | A | 14 | D |
| 2 | B | 15 | E |
| 3 | C | 16 | D |
| 4 | D | 17 | B |
| 5 | E | 18 | C |
| 6 | D | 19 | A |
| 7 | A | 20 | A |
| 8 | B | 21 | B |
| 9 | C | 22 | C |
| 10 | E | 23 | B |
| 11 | A | 24 | C |
| 12 | B | 25 | B |
| 13 | C | 26 | E |

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| **PART 5** |
| **#** | **Ans** | **#** | **Ans** |
| 1 | A | 11 | A |
| 2 | C | 12 | E |
| 3 | B | 13 | D |
| 4 | D | 14 | A |
| 5 | D | 15 | B |
| 6 | D | 16 | C |
| 7 | E | 17 | B |
| 8 | C | 18 | D |
| 9 | C | 19 | A |
| 10 | B | 20 | E |

Practice Test #2 KEY

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| **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** |
| 1 | C | 16 | A | 31 | D | 46 | C |
| 2 | A | 17 | D | 32 | A | 47 | D |
| 3 | A | 18 | B | 33 | A | 48 | B |
| 4 | C | 19 | B | 34 | B | 49 | A |
| 5 | D | 20 | C | 35 | B | 50 | B |
| 6 | A | 21 | A | 36 | A | 51 | C |
| 7 | D | 22 | A | 37 | A | 52 | B |
| 8 | D | 23 | D | 38 | D | 53 | D |
| 9 | B | 24 | A | 39 | A | 54 | A |
| 10 | A | 25 | D | 40 | B | 55 | C |
| 11 | D | 26 | A | 41 | B | 56 | B |
| 12 | A | 27 | C | 42 | D | 57 | C |
| 13 | C | 28 | C | 43 | B | 58 | D |
| 14 | C | 29 | C | 44 | C | 59 | C |
| 15 | D | 30 | B | 45 | C | 60 | B |

Free Response Q’s

**1a** – 4.00 cm x 3.50 cm

 **b** – 1.26 x 10-2 cm

  **c** – 0.263 lb/in3

**2a** – 2.42 atm

 **b** – 0.0750 mol

 **c** – 0.40 atm

**3a** – 46.0 J

 **b** – 0.401 kJ

**4a** – The attractions btwn water vapor
 particles are strengthening as the liquid is
 forming

 **b** – The temperature of the surroundings is
 cooler than that of the container because
 the condensation process is
 exothermic and energy moves
 from hot to cold, leaving the
 container

**4c** – because energy must leave
 the container, the forming of
 liquid water is exothermic

**5** – 



**6** – 75.8% Cl-35, 24.2% Cl-37

**7a** - 

 **b** – 300 years

**8a** - 

  **b** – 3

  **c** – Tl3+

 **d** - 

  **e** – Outer electron of both Tl and

 Pb are in the 6p subshell.
 However, Tl has 81 protons,
 while Pb has 82 protons. Outer
 electrons are more attracted to
 a nucleus with more protons,
 requiring more energy to
 remove. Because Pb has more
 protons than Tl, Pb has a
 higher first ionization energy.

**f** – 2.7 x 1024 atoms

Practice Test #3 KEY

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| **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** |
| 1 | C | 19 | C | 37 | D | 55 | D |
| 2 | D | 20 | D | 38 | D | 56 | B |
| 3 | D | 21 | C | 39 | D | 57 | B |
| 4 | D | 22 | C | 40 | C | 58 | B |
| 5 | A | 23 | A | 41 | B | 59 | A |
| 6 | B | 24 | A | 42 | C | 60 | C |
| 7 | B | 25 | A | 43 | C | 61 | A |
| 8 | B | 26 | D | 44 | D | 62 | D |
| 9 | A | 27 | A | 45 | B | 63 | A |
| 10 | D | 28 | D | 46 | C | 64 | B |
| 11 | B | 29 | B | 47 | D | 65 | C |
| 12 | B | 30 | B | 48 | B | 66 | A |
| 13 | D | 31 | D | 49 | C | 67 | D |
| 14 | B | 32 | B | 50 | B | 68 | A |
| 15 | D | 33 | A | 51 | B | 69 | B |
| 16 | D | 34 | A | 52 | B | 70 | B |
| 17 | B | 35 | A | 53 | B |  |  |
| 18 | A | 36 | A | 54 | A |  |  |

Free Response Q’s

**1a** – ClO2

 **b** – ClO2

 **c** – 4.52 x 1022 molecules



**2** -



**10a** –

  **b** –

3 –

4a –



b –



5 –

6 –

**7** – 2.67



**8a** –

 **b** –

**9a** –

  **b** – 4.53 L

 **c** – 93.8%

 **d** - -4039 kJ/mol

  **e** – 306.5 kJ/mol

**11a** -

 **b** -

 **c -**

Practice Test #4 KEY

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| **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** |
| 1 | D | 21 | B | 41 | C | 61 | D | 81 | B |
| 2 | A | 22 | D | 42 | B | 62 | C | 82 | B |
| 3 | B | 23 | D | 43 | D | 63 | B | 83 | B |
| 4 | B | 24 | B | 44 | D | 64 | A | 84 | D |
| 5 | C | 25 | B | 45 | C | 65 | D | 85 | C |
| 6 | B | 26 | D | 46 | D | 66 | C | 86 | B |
| 7 | D | 27 | A | 47 | D | 67 | C | 87 | D |
| 8 | A | 28 | B | 48 | A | 68 | C | 88 | C |
| 9 | A | 29 | B | 49 | A | 69 | B | 89 | B |
| 10 | A | 30 | D | 50 | A | 70 | B | 90 | B |
| 11 | A | 31 | C | 51 | D | 71 | D | 91 | A |
| 12 | A | 32 | C | 52 | D | 72 | A | 92 | B |
| 13 | D | 33 | A | 53 | A | 73 | D | 93 | A |
| 14 | B | 34 | D | 54 | C | 74 | C | 94 | D |
| 15 | A | 35 | D | 55 | D | 75 | A | 95 | C |
| 16 | B | 36 | A | 56 | A | 76 | C | 96 | A |
| 17 | D | 37 | C | 57 | C | 77 | D | 97 | B |
| 18 | B | 38 | A | 58 | A | 78 | B | 98 | D |
| 19 | D | 39 | A | 59 | A | 79 | A | 99 | A |
| 20 | D | 40 | A | 60 | D | 80 | A | 100 | B |

Practice Test #5 KEY

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| **PART 1** |
| **#** | **Ans** | **#** | **Ans** | **#** | **Ans** |
| 1 | D | 11 | E | 21 | B |
| 2 | C6H12O2 | 12 | A | 22 | C |
| 3 | D | 13 | A | 23 | A |
| 4 | C | 14 | C | 24 | A |
| 5 | A | 15 | B | 25 | B |
| 6 | D | 16 | D | 26 | B |
| 7 | C | 17 | A | 27 | D |
| 8 | D | 18 | A | 28 | A |
| 9 | D | 19 | B | 29 | C |
| 10 | D | 20 | B |  |  |

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| **PART 2** |
| **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** |
| 1 | B | 16 | - | 31 | D | 46 | A | 61 | C | 76 | B |
| 2 | C | 17 | A | 32 | B | 47 | B | 62 | C | 77 | B |
| 3 | C | 18 | C | 33 | B | 48 | A | 63 | D | 78 | A |
| 4 | C | 19 | B | 34 | D | 49 | A | 64 | D | 79 | B |
| 5 | A | 20 | D | 35 | A | 50 | B | 65 | D | 80 | B |
| 6 | C | 21 | C | 36 | D | 51 | A | 66 | A | 81 | - |
| 7 | B | 22 | A | 37 | D | 52 | C | 67 | - | 82 | - |
| 8 | D | 23 | B | 38 | A | 53 | B | 68 | B | 83 | - |
| 9 | C | 24 | C | 39 | B | 54 | B | 69 | - | 84 | - |
| 10 | A | 25 | C | 40 | B | 55 | C | 70 | - | 85 | - |
| 11 | B | 26 | D | 41 | B | 56 | B | 71 | - | 86 | - |
| 12 | B | 27 | B | 42 | C | 57 | B | 72 | - | 87 | - |
| 13 | C | 28 | C | 43 | B | 58 | C | 73 | B | 88 | - |
| 14 | D | 29 | D | 44 | C | 59 | A | 74 | A | 89 | - |
| 15 | C | 30 | A | 45 | B | 60 | A | 75 | C |  |  |

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| **PART 3** |
| **#** | **Ans** | **#** | **Ans** | **#** | **Ans** | **#** | **Ans** |
| 1 | F | 21 | B | 41 | C | 61 | A |
| 2 | F | 22 | A | 42 | C | 62 | C |
| 3 | F | 23 | A | 43 | A | 63 | C |
| 4 | F | 24 | C | 44 | B | 64 | B |
| 5 | T | 25 | D | 45 | D | 65 | A |
| 6 | F | 26 | A | 46 | C | 66 | B |
| 7 | T | 27 | B | 47 | A | 67 | D |
| 8 | T | 28 | D | 48 | A | 68 | B |
| 9 | T | 29 | C | 49 | C | 69 | A |
| 10 | F | 30 | A | 50 | C | 70 | C |
| 11 | D | 31 | A | 51 | C | 71 | C |
| 12 | C | 32 | D | 52 | D | 72 | A |
| 13 | A | 33 | A | 53 | C | 73 | D |
| 14 | B | 34 | C | 54 | B | 74 | B |
| 15 | A | 35 | A | 55 | B | 75 | B |
| 16 | D | 36 | D | 56 | C | 76 | A |
| 17 | D | 37 | B | 57 | D | 77 | B |
| 18 | C | 38 | B | 58 | A | 78 | C |
| 19 | D | 39 | B | 59 | D | 79 | A |
| 20 | D | 40 | B | 60 | B |  |  |