**Acids and bases quiz**

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| **1.)** | What are the two Bronsted-Lowry bases in this equilibrium?  |
| http://www.quizmebc.ca/images/exams/2990620.gif |
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| A.) | HSO3- and SO32- |
| B.) | HSO3- and H3PO4 |
| C.) | H2PO4- and SO32- |
| D.) | H2PO4- and H3PO4 |

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| **2.)** | The amphiprotic ions are  |
| http://www.quizmebc.ca/images/exams/2990624.gif |
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| A.) | I and III only. |
| B.) | II and III only. |
| C.) | I, II, III. |
| D.) | I and II only. |

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| **3.)** | The conjugate base of an acid is produced by  |
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| A.) | adding an electron to the acid. |
| B.) | removing an electron from the acid. |
| C.) | removing a proton from the acid.  |
| D.) | adding a proton to the acid. |

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| **4.)** | The temperature is increased and a new equilibrium is established. The new equilibrium can be described by  |
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| A.) | pH=pOH and Kw<1.0x 10--14 |
| B.) | pH=pOH and Kw>1.0x 10--14 |
| C.) | pH>pOH and Kw=1.0 x 10-14 |
| D.) | pHw=1.0 x 10-14 |

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| **5.)** | Calculate the [H3O+] in a 0.010 M solution of Sr(OH)2.  |
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| A.) | 1.0 x 10-2 M |
| B.) | 5.0 x 10-13 M |
| C.) | 1.0 x 10-12 M |
| D.) | 2.0 x 10-2 M |

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| **6.)** | The conjugate acid of HAsO42- is  |
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| A.) | H2AsO4- |
| B.) | AsO43- |
| C.) | H3O+ |
| D.) | H3AsO4 |

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| **7.)** | The value of Kb for HSO3- is  |
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| A.) | 1.5 x 10-2 |
| B.) | 1.0 x 10-7 |
| C.) | 1.5 x 10-13 |
| D.) | 6.7 x 10-13 |

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| **8.)** | *A solution of known concentration* is the definition of a  |
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| A.) | neutral solution. |
| B.) | buffer solution. |
| C.) | standard solution. |
| D.) | saturated solution. |

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| **9.)** | The relationship shown is the expression for  |
| http://www.quizmebc.ca/images/exams/2000429.gif |
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| A.) | Ka for H2BO3- |
| B.) | Kb for H3BO3 |
| C.) | Ka for H3BO3 |
| D.) | Kb for H2BO3- |

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| **10.)** | The order of Bronsted-Lowry acids and bases in the reaction is  |
| http://www.quizmebc.ca/images/exams/2000823.gif |
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| A.) | acid, base, base, acid. |
| B.) | base, acid, base, acid. |
| C.) | base, acid, acid, base. |
| D.) | acid, base, acid, base. |

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