**Acids and bases quiz**

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

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

|  |  |
| --- | --- |
| **3.)** | The conjugate base of an acid is produced by |
| |  |  | | --- | --- | | 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. | | |

|  |  |
| --- | --- |
| **4.)** | The temperature is increased and a new equilibrium is established. The new equilibrium can be described by |
| |  |  | | --- | --- | | 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 | | |

|  |  |
| --- | --- |
| **5.)** | Calculate the [H3O+] in a 0.010 M solution of Sr(OH)2. |
| |  |  | | --- | --- | | 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 | | |

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

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

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

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

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