**ARKA JAIN University, Jharkhand**

1st Semester 1st Internal Examination – 2023-2024



**Subject: Pharmaceutical Analysis-1 (Theory)**

**Course: B. Pharm** **Full Marks: 30**

**Time: 1hr**

* **All Questions are compulsory**.
1. **Multiple Choice Questions**$\left(10×1=10\right)$
2. **The number of moles of a solute per liter of a solution is**

|  |  |
| --- | --- |
| 1. Molality
 | 1. Normality
 |
| 1. Molarity
 | 1. None
 |

1. **Which method is used for the Limit test for arsenic**

|  |  |
| --- | --- |
| 1. Gutzeit method
 | 1. Oswald method
 |
| 1. Arrhenius method
 | 1. Karl-Fischer method
 |

1. **The equivalent weight of NaoH is**

|  |  |
| --- | --- |
| 1. 36
 | 1. 20
 |
| 1. 40
 | 1. 13
 |

1. **Solution of known concentration**

|  |  |
| --- | --- |
| 1. Standard solution
 | 1. Concentration
 |
| 1. Solution
 | 1. Concentrated solution
 |

1. **Acid is a substance which dissociates in water to produce hydrogen ions**

|  |  |
| --- | --- |
| 1. Arrhenius theory
 | 1. Lewis theory
 |
| 1. Bronsted theory
 | 1. Lowry theory
 |

1. **\_\_\_\_\_\_\_\_\_\_used as titrant in non-aqueous titration.**

|  |  |
| --- | --- |
| 1. EDTA
 | 1. Perchloric acid
 |
| 1. Sodium nitrite
 | 1. Silver nitrite
 |

1. **pH is defined as**

|  |  |
| --- | --- |
| 1. -log [OH-1]
 | 1. -log [H+]
 |
| 1. pH +pOH
 | 1. log pOH
 |

1. **A Bronsted-Lowry acid is defined as a substance that**

|  |  |
| --- | --- |
| 1. donates a proton
 | 1. releases OH (aq)
 |
| 1. accepts a proton
 | 1. none of the above
 |

1. **Non aqueous titration is carried out for**

|  |  |
| --- | --- |
| 1. Water insoluble drug
 | 1. Weakly acidic drug
 |
| 1. Weakly basic drug
 | 1. All the above
 |

1. **Protogenic solvent is**

|  |  |
| --- | --- |
| 1. Sulphuric acid
 | 1. Hydrochloric acid
 |
| 1. Nitric acid
 | 1. All the above
 |

1. **Long Answers (Answer 1 out of 2)** $\left(1×10=10\right)$
2. Define error. Classify and explain types of error.
3. Write down the importance of non-aqueous titration. Give a brief note on solvents used in non-aqueous titration.
4. **Short Answers (Answer 2 out of 3)**$ (2×5=10)$
5. Explain in detail about neutralization curves.
6. Give a note on theory of indicators.
7. Write about the theories involved in acid-base titration.