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| SCHOOL OF PHARMACY | E:\Blank format\AJU LOGO.jpg | **1ST INTERNAL EXAMINATION** |
| Program Name | **BACHELOR OF PHARMACY** | Program Code | **B.PHARM** |
| Course Name | **Pharmaceutical Analysis - I** | Semester | **1st Semester** |
| Course Code | **-------** | Year | **2023/Odd** |
| Time: 1 Hours | **Answer all Questions of Section A****Answer Any one of Section B****Answer Any two of Section C** | Maximum Marks | **30** |
| Knowledge Level (KL) | **K1 :** Remembering | **K3 :** Applying | **K5 :** Evaluating |
| **K2 :** Understanding | **K4 :** Analysing | **K6 :** Creating |
| **Section A** **All the Questions are COMPULSORY****Short Answer type Question [1 x 10 = 10 Marks]** |
| **Q. No.** | **Questions** | **Marks** | **COs** | **KL** | **PO** |
| **1(i)** | **The number of moles of a solute per liter of a solution is**

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

 | **1** | **CO2** | **K2** | **PO1** |
| **1(ii)** | **Which method is used for the Limit test for arsenic**

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

 | **1** | **CO2** | **K2** | **PO1** |
| **1(iii)** | **The equivalent weight of NaoH is**

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

 | **1** | **CO3** | **K4, K5** | **PO2** |
| **1(iv)** | **Solution of known concentration**

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

 | **1** | **CO3** | **K4** | **PO2** |
| **1(v)** | **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** | **CO2** | **K4** | **PO1** |
| **1(vi)** | **\_\_\_\_\_\_\_\_\_\_used as titrant in non-aqueous titration.**

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

 | **1** | **CO3** | **K4, K5** | **P01** |
| **1(vii)** | **pH is defined as**

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

 | **1** | **CO3** | **K4,K5** | **PO1** |
| **1(viii)** | **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** | **CO2** | **K2** | **PO5** |
| **1(ix)** | **Non aqueous titration is carried out for**

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

 | **1** | **CO2** | **K4,K5** | **PO1** |
| **1(x)** | **Protogenic solvent is**

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

 | **1** | **CO1** | **K2** | **PO1** |
| **Section B****Answer any One out of Two [1 x 10 = 10 Marks]** |
| **2** | **Define error. Classify and explain types of error.** | **10** | **CO3** | **K3,K4** | **PO1** |
| **3** | **Write down the importance of non-aqueous titration. Give a brief note on solvents used in non-aqueous titration.** | **10** | **CO3** | **K3,K4** | **PO1** |
| **Section C****Answer any Two out of Three [2 x 5 = 10 Marks]** |
| **4** | **Explain in detail about neutralization curves.** | **05** | **CO3** | **K4,K5** | **PO1** |
| **5** | **Give a note on theory of indicators.** | **05** | **CO2** | **K2,****K3,K4** | **PO1** |
| **6** | **Write about the theories involved in acid-base titration.** | **05** | **CO2** | **K2, K3, K4** | **PO1** |

CO- Course Outcomes, KL- Knowledge Level, PO – Program Outcome

|  |  |  |
| --- | --- | --- |
| Course Outcomes | CO01 | Develop the ideas with the fundamental of analytical chemistry |
| CO02 | Know the sources of mistakes and errors in analysis and their minimizing techniques |
| CO03 | Develop the fundamentals of volumetric analytical skills. |
| CO04 | Understand the fundamentals and mechanism of precipitation, and complexometric titration |
| CO05 | Understand the fundamentals and types of redox titration. |
| CO06 | Acquire the basic knowledge in the principles of electrochemical analytical techniques |

|  |  |
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|  |  |

Note : This above figure is only Example and must prepare this type of figure in these two column