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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 Inorganic Chemistry** | Semester | **1st Semester**  |
| Course Code | **PHM21004** | Year | **2023-24/ODD** |
| Time: 1Hour | **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****MULTIPLE CHOICE type Question [1 x 10 = 10 Marks]** |
| **Q. No.** | **Questions** | **Marks** | **COs** | **KL** | **PO** |
| **1(i)** | Pharmaceutical buffer systems could be categorized into:(a) 1 (b) 2 (c) 3 (d) None of the above | **1** | **3** | **1** | **1** |
| **1(ii)** | Fluoride inhibits caries formation via:(a) Increase acid solubility of enamel(b) Bacterial inhibition (c) Both the above (d) Decrease acid solubility of enamel | **1** | **3** | **1** | **1** |
| **1(iii)** | Impurities in pharmaceutical preparation may be due to the following sources: (a) Raw material (b) Manufacturing process (c) Chemical instability (d) All of the above | **1** | **4** | **4** | **1** |
| **1(iv)** | Causticsoda is a synonym of:(a) NaOH(b) Hcl(c) CaCo7(d) I2 | **1** | **2** | **4** | **2** |
| **1(v)** | The most widely used Anti-caries agent is:(a) Sodium Bicarbonate(b) Sodium Carbonate(c) Sodium Fluoride(d) Acacia | **1** | **2** | **1** | **1** |
| **1(vi)** | The lead acetate cotton wool is used in the limit test for arsenic to:(a) Make the arsine gas(b) Develop the yellow color (c) Trap the hydrogen sulphide gas(d) None of the above | **1** | **1** | **1** | **1** |
| **1(vii)** | Limit tests are performed in:(a) Flask(b) Test Tube(c) Nesslar Cylinder(d) Petri Dish | **1** | **1** | **1** | **1** |
| **1(viii)** | Milk of magnesia is a common name for:(a) Suspension of Magnesium Oxide(b) Suspension of Magnesium Hydroxide(c) Suspension of Magnesium Carbonate(d) None of the above | **1** | **2** | **4** | **2** |
| **1(ix)** | Silver nitrate should be stored in:(a) Clean, dry white bottles(b) Lead-free white bottles (c) Amber colored bottles(d) Neutral glass bottles | **1** | **2** | **4** | **2** |
| **1(x)** | Hydrochloric acid (HCL) is used in:(a) Diarrhea(b) Hyperacidity(c) Achlorhydria(d) Fever | **1** | **2** | **4** | **2** |
| **Section B****Answer any ONE out of TWO [1x 10= 10Marks]** |
| **Q. No.** | **Questions** | **Marks** | **COs** | **KL** | **PO** |
| **1** | What are the sources of impurities in pharmaceutical substances? Explain the principle for the limit test for sulphate. | **10** | **1, 4** | **1** | **1** |
| **2** | What are Dentrifrices? Role of fluoride in the treatment of dental caries. | **10** | **3** | **1** | **1** |
| **Section C****Answer any TWO out of THREE [2 x 5 = 10 Marks]** |
| **Q. No.** | **Questions** | **Marks** | **COs** | **KL** | **PO** |
| **1** | What are buffers derived from the Henderson-Hesselbalch equation for buffer? | **05** | **2** | **1** | **1** |
| **2** | What do you mean by the term monograph? What are the contents of the monograph in detail? | **05** | **2** | **1** | **1** |
| **3** | Calculate the pH of a buffer prepared by mixing 150 mL of 0.3 M acetic acid with 200 mL of 0.2 M sodium acetate when the pKa of acetic acid is 4.74. | **05** | **2** | **5** | **2** |

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

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| Course Outcomes | CO1 | Know the principles of limit tests. |
| CO2 | Understand different classes of inorganic pharmaceuticals and their analysis |
| CO3 | Know about identification and test for purity of different inorganic pharmaceuticals |
| CO4 | Acquire knowledge about the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals |