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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 |