## Rayat Shikshan Sanstha's Yashawantrao Chavan Institute of Science, Satara (Autonomous) Department of Drug Chemistry B.Sc. I, Semester II: End Semester Examination Paper Title- Introducton To Pharmaceutical Chemistry I Paper Code : BDCT 201

#### **Question bank**

## **Q. 1** Answer in one sentence

## [2Marks]

- 1. Define buffer capacity
- 2. What is the role of iron in the human body?
- 3. Mention the names of Tridosha
- 4. Write names of pharmaceutically active constituent in turmeric and cumin
- 5. Write the chemical name and molecular formula of caustic soda
- 6. Write the chemical name and molecular formula of washing soda
- 7. write pharmaceutically active ingredient of liquorice and cardamom
- 8. Mention the names of Triguna
- 9. What is the use of iodine in human body?
- 10.Complete the following reactions
  - a. Mg + HCl  $\longrightarrow$  ? + ? b. KOH + HCl  $\longrightarrow$  ? + ?
- 11. What is buffer capacity
- 12. Write names of pharmaceutically active ingredient of Cinnamon and Clove
- 13. Write chemical name and molecular formula of baking soda
- 14. Write names of Tridosha and Triguna
- 15. Complete the following reaction
  - a) Ca + 2 HCl  $\longrightarrow$  ? + ?
  - b) KOH + HCl  $\longrightarrow$  ? + ?
- 16. Define Buffer with suitable example

- 17. Complete the following reaction
  - a) Mg + 2 HBr → ? + ? b) KOH + HBr → ? + ?
- Write names of pharmaceutically active ingredient of Cinnamon and Ashwagandha
- 19. Write use of calcium gluconate
- 20. Write names of pharmaceutically active ingredient of Bitter melon and Brahmi
- 21. Write use of ferrous sulphate
- 22. What is Acidic buffer
- 23. What is Basic buffer
- 24. Explain Buffer capacity
- 25. Eugenol and Withanone are isolated from which medicinal plant

## Q.2) Attempt any two from the following questions [10 Mark]

- 1. Derive buffer equations for acidic and basic buffer
- 2. Explain in detail Ashwagandha and Bramhi as ayurvedic medicine
- 3. Write properties and applications of Iron and Calcium
- 4. Explain in details Turmeric and Ashwagandha as Ayurvedic medicine
- 5. Write properties and applications of Calcium gluconate
- 6. What is acidic and basic buffer derive equations for the same
- 7. Explain tridosha in details
- 8. Explain in details Brahmi and Bitter melon as Ayurvedic medicine

- Explain acidic and basic buffer with equations for both acidic and basic buffer
- 10. Explain properties and applications of ferrous sulphate
- 11. What is the fever of ayurveda ? Explain Ashtang Ayurveda
- 12. Explain the mutual relationship between Panchamahabhuta Triguna-Tridosha
- Write any two methods of Preparation of HCl along with physical & Chemical properties of HCl
- 14.Write any two methods of Preparation of Ammonia along with physical & Chemical properties of Ammonia
- 15. Explain uses of calcium gluconate in detail

# Q. 3) Attempt any four from the following questions [5x4=20]

- 1. Write a short note on pH of neutral or pure water with equation
- Write methods of preparation of HCl from sodium chloride and from the biproducts (H<sub>2</sub> & Cl<sub>2</sub>) of manufacturing of caustic soda
- 3. Write physical and chemical properties of ammonia
- 4. Explain Lokpurusha Samya Siddhanta
- 5. Explain properties of calcium gluconate
- 6. Explain liquorice as a Ayurvedic medicine
- 7. Write short note on pH of neutral or pure water with equation
- 8. Write methods of preparation of hydrochloric acid from sodium chloride and from the biproducts  $(H_2 \& Cl_2)$  manufacturing of caustic soda
- 9. Explain watermelon as Ayurvedic medicine
- 10. Write uses of boric acid and HCl
- 11. Explain properties of calcium gluconate

12.Define buffer and write in details buffer action of Acetic Acid

(CH<sub>3</sub>COOH) and Sodium Acetate (CH <sub>3</sub>COONa) buffer

- 13.Define buffer and write in details action of basic buffer NH<sub>4</sub> OH & NH<sub>4</sub> Cl
- 14. Write uses of boric acid and HCl
- 15.Write methods of preparation of HCl from sodium chloride and from the biproducts (H<sub>2</sub> & Cl<sub>2</sub>) manufacturing of caustic soda
- 16. Explain Lokpurusha Samya Siddhant
- 17.Write properties of calcium gluconate
- 18. Explain carcadian rhythm of tridosha on the basis of seasons
- 19. Explain turmeric as ayurvedic medicine
- 20. Explain cardamom as ayurvedic medicine
- 21. Explain bitter melon as ayurvedic medicine
- 22. Explain Haber's Process of manufacturing of ammonia
- 23. Explain Prakriti the unique identity
- 24. Write methods of preparation of sodium hydroxide
- 25. Write uses of ammonia and Sodium hydroxide
- 26.Explain acidic buffer with derivation
- 27. Explain basic buffer with buffer equation
- 28. Define buffer and explain buffer action of acidic buffer
- 29. Define buffer capacity Explain buffer action of NH<sub>4</sub> OH & NH<sub>4</sub> Cl buffer
- 30. Explain samanya vishesh Siddhanta