F.Y. B. Pharma
(sem-I)
25/08/2025

Time: 3 Hrs **Marks: 75** ATKT

Q. I Answer the following Multiple Choice Questions. Select the most appropriate option for each statement. **20M**

1. The fourth edition of Indian Pharmacopoeia was published in the year_______.
   a 1996
   b 1985
   c 1975
   d 2002
2. ____________assay is based on the principle of precipitation titration
   a Sodium thiosulphate
   b Hydrogen peroxide
   c Calcium gluconate
   d Sodium Chloride
3. In the limit test of arsenic, the arsenious gas is reduced to______________, which reacts with mercuric chloride paper.
   a Mercuric arsenite
   b Stannous chloride
   c Arsine gas
   d Arsenic acid
4. ______________ solution of sodium chloride is isotonic.
   a 1.9% w/v
   b 0.9%w/v
   c 0.09%w/v
   d 2.9 % w/v
5. Major Extracellular anion is _______
   a Phosphate
   b bicarbonate
   c Chloride
   d Sodium
6. ____________is a condition characterized by abnormally low levels of potassium.
   a Hyponatremia
   b Hypokalemia
   c Hypocalcemia
   d Hypophosphatemia
7. Sodium fluoride is used as
   a Anticaries agent
   b Astringent
   c Sodium replacement therapy
   d Expectorant

8. What is a key disadvantage of bicarbonate-based antacids?
   - a Slow onset of action
   - b Ineffective in neutralizing gastric acid
   - c Interaction with phosphate
   - d Acid rebound effect due to rapid neutralization

9. ______ is used as a swelling agent and cathartic.
   - a Calcium Hydroxide
   - b Bentonite
   - c Magnesium sulphate
   - d Calcium carbonate

10. Which combination of antacids is often used to balance side effects like constipation and diarrhea?
    - a Sodium bicarbonate and aluminum hydroxide
    - b Aluminum hydroxide and magnesium hydroxide
    - c Sodium hydroxide and calcium carbonate
    - d Sodium bicarbonate and magnesium hydroxide

11. The Molecular formula for sodium orthophosphate is
    - a Na_2PO_4
    - b $NaHPO_4$
    - c Na_2HPO_4
    - d Na_2OPO_4

12. Gastric acidifiers are the drugs which are used to --------
    - a Decrease the gastric pH.
    - b Increase the gastric pH.
    - c Maintain the gastric pH.
    - d Decrease the systemic pH.

13. ______is the titrant used in the assay of ferrous sulphate as per I.P.1996.
    - a Potassium Permanganate
    - b Sodium thiosulphate
    - c Cerric ammonium sulphate
    - d Hydrochloric acid

14. ____________ is systemic expectorant as well as acidifier?
    - a Copper sulphate
    - b Ferrous sulphate
    - c Ammonium chloride
    - d Potassium iodide

15. For treatment of anaemia ________can be used
    - a Sodium sulphate
    - b Sodium bicarbonate
    - c Ferrous sulphate
    - d Zinc sulphate

16. Antimony potassium tartarate used as Antimony
   a Expectorant
   b Antacid
   c Emetic
   d Astringent
17. Astringents act by:
   a Stimulating the flow of respiratory tract secretions
   b Increasing viscosity of bronchial secretion
   c Inducing vomiting
   d Protein precipitation
18. Sodium nitrite is an ___________
   a antidote
   b astringents
   c antacids
   d expectorants
19. Sodium Iodide-131 is used for detection of
   a Hypotension
   b Hypoglycemia
   c Hyperthyroidism
   d Hypertension
20. Isotopes are having
   a Different atomic mass number and different atomic number
   b Same atomic mass number but different atomic number
   c Same atomic mass number and same atomic number
   d Different atomic mass number but same atomic number

Q.II Attempt ANY TWO of the following. **20M.**

Q1. [a] Explain the Principle, reaction , procedure involved in the Limit test of Heavy metals **10M**

[b]Enlist major intracellular and extracellular electrolytes and Discuss the role of Phosphate and Sodium ions.

Q2. Discuss the types of antacids with examples of each type. Explain mechanisms by which antacids alleviate symptoms of hyperacidity. What are the common side effects of antacids? Why is aluminium hydroxide known as buffer antacid? **10M**

Q3. [a] Write in brief about Pharmaceutical applications of radioactive substances. **10M**

[b] Write a note on expectorants and hematinics. Give two examples of each.

Q.III Attempt **ANY SEVEN out of given nine questions.** **35M**

Q1. Define the limit test and give its significance. Write procedure, principle and reaction involved in the limit test for iron. **5M**

Q2. Write a note on electrolyte replacement therapy. **5M**

Q3. [a] Discuss buffers used in pharmaceutical industry [3M] **5M**

[b] Define desensitizing agent and anticaries agent with suitable example [2M]

Q4. Name the type of titration, titrant, indicator used and the end point for the assay and category of the following compounds: **5M**

[a] Sodium bicarbonate

[b] Hydrogen peroxide

Q5. What are cathartics? Classify cathartics based on mechanism and give its significance. **5M**

Q6. Write the category, mechanism of action and uses of aluminium, ammonium chloride, chlorinated lime, aluminium hydroxide, iodine solution and kaolin. **5M**

Q7. Write in brief note on precautions to be taken while handling radioactive substances and storage conditions of it. **5M**

Q8. Classify antidotes with suitable examples based on mechanism of action. Give the role of sodium thiosulphate and sodium nitrate in cyanide poisoning. **5M**

Q9. What are astringents? Describe properties and applications of astringents with suitable examples. **5M**

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