M 4/166

Enrolment Number										

Total No. of printed pages = 03

Monsoon, 2024

B. Pharm 1st Semester Examination

Pharmaceutical Inorganic Chemistry – Theory

Course Code: BP104T

Full Marks – 75 **Time – 3 hours**

The figure in the margin indicates full marks for the questions.

I. Objective type (Answer all 20) 1 X 20 = 20

1. The mechanism by which fluorides inhibit dental caries is……
   a. By increasing susceptibility to acid
   b. By increasing the sensitivity of tooth enamel.
   c. Decreased acid solubility of enamel.
   d. Increased acid solubility of enamel
2. Which method is used for the limit test for arsenic?
   a. Gutzeit Method b. Oswald Method
   c. Arrhenius Method d. Karl-Fischer method
3. Zinc Chloride is added to mouth wash because it acts as?
   a. Fragrance b. Astringent
   b. Cooling agent c. Antibacterial.
4. Silver Nitrate reagent is used for the limit test in Indian Pharmacopoeia for …….
   a. Lead b. Iron
   b. Chloride d. Mercury
5. Linctus is used to treat??
   a. Gingivitis b. Cough
   c. Mouth ulcers d. Tooth ache.
6. The role of borax in cold creams is ……
   a. Anti-microbial agent b. To provide fine particles to polish skin
   c. In- situ emulsifiers d. Antioxidant
7. Arrange the following Lowry-Bronsted acids into their decreasing order of acidity.
   P. C_2H_5OH Q. CH_3-C=CH R. H_20 S. CH_3NH_2
   a. R>P>Q>S b. P>R>Q>S
   c. P>Q>R>S d. R>Q>P>S

8. Oral rehydration salt contains ionic electrolytes in concentration mmol/L

a. Na^+ 20, K^+10
b. Na^+ 40, K^+20
c. Na^+ 50, K^+10
d. Na^+ 60, K^+20

9. In human body ..... System operates to maintain Ph of blood plasma?

a. Acetate Buffer
b. Lysis buffer
c. Potassium citrate
d. Carbonic acid

10. Among the following which is known as "SPIRIT OF SALT".

a. Nitric acid
b. Boric acid
c. Hydrochloric acid
d. Thioglycolic acid.

11. In the Limit Test of iron which colored stain is obtain?

a. Pink to reddish purple
c. Red to purple
b. Blue to reddish purple
d. Brown to reddish purple

12. Which compound used for sublimation during purify of inorganic substances?

a. Iodine
b. potassium carbonate
c. Calcium carbonate
d. Sodium chloride

13. The acid base theory was first proposed by

a. Arrhenius
c. Bronsted- Lowry
b. Lewis
b. Galen

14. Hypochloraemia can be caused by

a. Salt losing nephritis
b. Metabolic acidosis
c. both (a) and (b)
d. Metabolic alkalosis

15. Antacids acts by:

a. Decreasing the volume of HCl in stomach.
b. Neutralizing the gastric HCl contents
c. through H/K ATPase pump.
d. all of the above.

16. Which is both acidifying as well as expectorant:

a. Ammonium chloride
b. Potassium Iodide
c. Dil. HCl
d. Sodium potassium tartrate

17. Roentgen is equivalent to:

a. 2.58×10^{-5} CKg^{-1}
b. 2.58×10^{-3} CKg^{-1}
c. 2.58×10^{-3} CKg^{-1}
d. 2.58×10^{-4} CKg^{-1}

18. Radiation is measured in terms of:

a. Curie
b. Microcurie
c. Millicurie
d. All of the above.

19. The amount of acid or base that must be added to buffer to produce a unit change of pH is.

a. Buffer Solution
b. Buffer Action
c. Buffer Capacity
d. None of above

20. The major side effect associated with saline cathartics is:

a. Excessive loss of body fluids in form of water stools
b. Convulsions
c. Cardiac disorders
d. Constipation

II. Long answer Questions. (within 500 words) (Any two). **(10 X 2 = 20)**

1. Explain Geiger – Muller (GM) Counters with suitable diagram
2. Define Limit test? Write down the principle and all the three methods of limit test of Heavy Metals.
3. Define and Classify antimicrobials agents? Explain the mechanism of action of antimicrobials agents. Write down the chemical formula, physical properties and uses of Hydrogen Peroxide.

III. Short answer type questions (Any seven) (Within 250 words) **(5 X 7 = 35)**

1. Define Antacids? Classify antacids with examples. Enumerate the list on ideal characteristics of antacids.
2. Write the sources of impurities in pharmaceutical chemicals.
3. Define Buffer. Write classification of Buffer solution and Ideal properties of buffer solution.
4. Elaborate the different methods used to purify the inorganic substances.
5. Define acid and base according to Arrhenius concept with limitations.
6. Define antimicrobials agents? Explain the mechanism of action antimicrobial agents with structures.
7. Define Dentifrices? Explain the role of fluoride in Dental caries. Write the chemical formula, physical properties and uses of Calcium Carbonate.
8. Write short notes on Radio Pharmaceuticals.
9. Define and classify Antidotes. Write down the chemical formula and uses of Potash alum.
10. Explain the principle and procedure on limit test of Sulphate.

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