

**B. PHARM.  
FIRST SEMESTER  
PHARMACEUTICAL INORGANIC CHEMISTRY  
BP104T**

**SET  
C**

[USE OMR FOR OBJECTIVE PART]

Duration : 3 hrs.

Full Marks : 75

Time : 30 min.

**PART-A: Objective**

Marks : 20

*Choose the correct answer from the following:*

**1×20=20**

1. Acid used in limit test of sulphate<sup>-</sup>
  - a. Sulphuric Acid
  - b. Hydrochloric Acid
  - c. Nitric Acid
  - d. none
2. .... is used as an antidote in cyanide poisoning
  - a. Sodium Nitrite
  - b. Sodium Fluoride
  - c. Sodium Iodide
  - d. None
3. Unit of radioactivity is
  - a. Ohm
  - b. Dyne
  - c. Joule
  - d. Curie
4. What is true about the antacid?
  - a. It is an alkaline substance
  - b. Used for inhibiting the release of acid
  - c. Water soluble in nature
  - d. Used to increased acid
5. Dithizone is ..... and lead dithizone complex is ..... in color.
  - a. Green , violet
  - b. Green , Red
  - c. Green , Yellow
  - d. Green , blue
6. In parenteral pharmaceutical preparation following buffer is used
  - a. Phosphate
  - b. Borate
  - c. Bicarbonate
  - d. None
7. In limit test of sulphate which of following is used to prevent supersaturation?
  - a. Potassium Sulphate
  - b. Alcohol
  - c. Barium Chloride
  - d. None
8. Which book contains general and specific preparations employed in the manufacture of drugs?
  - a. Pharmacopoeia
  - b. Travelling guide
  - c. Maps
  - d. Astronomical books.
9. The drugs which give rise to force emesis
  - a. Astringent
  - b. Cathartics
  - c. Expectorant
  - d. Emetics

10. In limit test for iron , ferrous thioglycolate has stable pink to reddish purple color in which medium?
- a. Acidic.
  - b. alkaline
  - c. Neutral.
  - d. None
11. Synonym of potash alum is
- a. Baking soda
  - b. Fitkari
  - c. Epsom Salt
  - d. Milk of magnesia
12. As per I.P., limit of sulphate as impurity in the stated compound is
- a. 10 ppm
  - b. 20 ppm
  - c. 25 ppm
  - d. 15 ppm
13. Radiopharmaceuticals compounds stored in
- a. Lead Container
  - b. Glass Container
  - c. Refrigerator
  - d. Warm Container
14. Which compound produce if  $\text{Al}(\text{OH})_3$  gel reacts with gastric HCl?
- a.  $\text{Al}_2\text{O}_3$
  - b.  $\text{AlCl}_3$
  - c.  $\text{Al}_3\text{Cl}_3$
  - d.  $\text{Al}_3\text{Cl}$
15. Beta particles penetration Aluminium foil up to
- a. 1 cm
  - b. 1 mm
  - c. 3 cm
  - d. 3 mm
16. Calculate  $\text{H}^+$  concentration in a solution of pH 8
- a.  $10^{-8}$
  - b.  $10^{-7}$
  - c.  $10^{-4}$
  - d.  $1/10^{-8}$
17. Which one of the following is sedative expectorant
- a.  $\text{NH}_4\text{Cl}$
  - b. Anise
  - c. Eucalyptus
  - d. Lemon
18. Which ion takes part in formation of gastric hydrochloric acid
- a. Magnesium
  - b. Potassium
  - c. Chloride
  - d. Calcium
19. Which is a weak acid.
- a. Perchloric acid
  - b. hydrochloric acid
  - c. acetic acid
  - d. None
20. According to Arrhenius concept an acid is substance which
- a. Gives  $\text{H}^+$  ion
  - b. Gives  $\text{OH}^-$  ion
  - c. Hydronium ion
  - d. None

**( PART-B: Descriptive )**

Time : 2 hrs. 30 min.

Marks : 35

*[ Answer any seven (7) questions ]*

- |  |               |
|--|---------------|
| 1. Define isotonic solutions with example? Write about Haemolytic method? Enumerate the methods to adjust tonicity. Write about buffer capacity.   | 1+1+2+<br>1=5 |
| 2. Write the principle and reaction involved in limit test for iron and sulphate. Write the composition of barium sulphate reagents with their uses.   | 2+2+1<br>=5   |
| 3. Define $P^H$ and derive the equation for $P^H$ scale.   | 1+4=5         |
| 4. What is the chemical name and formula of 'green vitriol'? Indicate its use and explain principle of its assay.  | 2+3=5         |
| 5. Write the working principle of the Geiger-muller counter With a neatly labelled diagram. Describe the precautions for storage and handling of radioisotopes.  | 2.5+2.5<br>=5 |
| 6. Write the difference between antiseptic and disinfectant. Write the mechanism of action of Anti microbial agent. Write the molecular formula, synonym, preparation, storage condition and uses of boric acid. | 1+1+3<br>=5   |
| 7. Define Poison and Antidote. Classify poison and antidote with example. Write about Cyanide poisoning with its treatment.  | 1+2+2<br>=5   |
| 8. Define Emetics. Classify them with example. Write the MOA of Emetics. Write the molecular formula, synonym, preparation and uses of copper sulphate.  | 1+1+1+<br>2=5 |

9. a. What is the use of glycerine in the boric acid assay? 1+1+1+  
 b. Write the molecular formula and synonym of chlorinated 1+1=5  
 lime  
 c. Define astringent and haematinics with example.  
 d. Write the role of lead acetate cotton wool in the limit test  
 for arsenic.  
 e. Write the composition and application of zinc eugenol  
 \_cement

**( PART-C : Long type questions )**

*[ Answer any two (2) questions ]*

1. Define Acid and Base according to Traditional, Arrhenius and Bronsted Lowry Concept. Derive Henderson Hassalbalch equation for weak acid and weak base. 3+3.5+  
3.5=10
2. Define Antacid. Classify them with example. Write the Monograph of Sodium Bicarbonate. 1+2+7=  
10
3. a. Explain the function of four major physiological ions with their associated disease. Write a note on electrolyte replacement therapy. 6+4=10  
 b. Briefly discuss about ORS with composition recommended by WHO and UNICEF for controlling diarrhoea.