

**B. PHARM.
FIRST SEMESTER
PHARMACEUTICAL INORGANIC CHEMISTRY
BP104T [REPEAT]
[USE OMR FOR OBJECTIVE PART]**

**SET
A**

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. According to Arrhenius concept an acid is substance which
 - a. Gives H⁺ ion
 - b. Gives OH⁻ ion
 - c. Hydronium ion
 - d. None
2. Which compound produce if Al(OH)₃ gel reacts with gastric HCl?
 - a. Al₂O₃
 - b. AlCl₃
 - c. Al₃Cl₃
 - d. Al₃Cl
3. The drugs which give rise to force emesis
 - a. Astringent
 - b. Cathartics
 - c. Expectorant
 - d. Emetics
4. Which book contains general and specific preparations employed in the manufacture of drugs?
 - a. Pharmacopoeia
 - b. Travelling guide
 - c. Maps
 - d. Astronomical books.
5. 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
6. Which is a weak acid.
 - a. Perchloric acid
 - b. hydrochloric acid
 - c. acetic acid
 - d. None
7. 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
8. Synonym of potash alum is
 - a. Baking soda
 - b. Fitkari
 - c. Epsom Salt
 - d. Milk of magnesia
9. Which ion takes part in formation of gastric hydrochloric acid
 - a. Magnesium
 - b. Potassium
 - c. Chloride
 - d. Calcium

10. Which one of the following is sedative expectorant
- | | |
|---------------------------|----------|
| a. NH_4Cl | b. Anise |
| c. Eucalyptus | d. Lemon |
11. Unit of radioactivity is
- | | |
|----------|----------|
| a. Ohm | b. Dyne |
| c. Joule | d. Curie |
12. Beta particles penetration Aluminium foil up to
- | | |
|---------|---------|
| a. 1 cm | b. 1 mm |
| c. 3 cm | d. 3 mm |
13. Radiopharmaceuticals compounds stored in
- | | |
|-------------------|--------------------|
| a. Lead Container | b. Glass Container |
| c. Refrigerator | d. Warm Container |
14. In parenteral pharmaceutical preparation following buffer is used
- | | |
|----------------|-----------|
| a. Phosphate | b. Borate |
| c. Bicarbonate | d. None |
15. In limit test of sulphate which of following is used to prevent supersaturation?
- | | |
|-----------------------|------------|
| a. Potassium Sulphate | b. Alcohol |
| c. Barium Chloride | d. None |
16. 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 |
17. is used as an antidote in cyanide poisoning
- | | |
|-------------------|--------------------|
| a. Sodium Nitrite | b. Sodium Fluoride |
| c. Sodium Iodide | d. None |
18. Dithizone is and lead dithizone complex is in color.
- | | |
|-------------------|-----------------|
| a. Green , violet | b. Green , Red |
| c. Green , Yellow | d. Green , blue |
19. Acid used in limit test of sulphate
- | | |
|-------------------|----------------------|
| a. Sulphuric Acid | b. Hydrochloric Acid |
| c. Nitric Acid | d. none |
20. Calculate H^+ concentration in a solution of pH 8
- | | |
|--------------|----------------|
| a. 10^{-8} | b. 10^{-7} |
| c. 10^{-4} | d. $1/10^{-8}$ |

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+
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
=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
=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
=5 |
| 7. Define Poison and Antidote. Classify poison and antidote with example. Write about Cyanide poisoning with its treatment. | 1+2+2
=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+
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.