

**B. Pharm. First Semester (C.B.S.) Examination**  
**PHARMACEUTICAL CHEMISTRY—I (Inorganic)**  
**Paper—2 (1T2)**

Time : Three Hours]

[Full Marks : 80

- N.B.** :— (1) Question No. 1 is compulsory.  
 (2) Solve any **FOUR** questions from remaining.  
 (3) Draw neat labeled diagram wherever necessary.

1. Solve any **FIVE** of the following :—
  - (a) Write the principle for the Limit test of chloride.
  - (b) Enlist various inorganic compounds used as gastrointestinal agents along with examples.
  - (c) Write the role of fluorides as anticaries agents.
  - (d) Explain, how acid-base balance of the body is maintained.
  - (e) Write the various WHO formula of oral rehydration solutions.
  - (f) Define buffer capacity. Write its importance.
  - (g) What do you mean by acidosis and alkalosis ? 4×5=20
2. (a) Define the term Impurity. Give the various sources of Impurities along with its effect. 7  
 (b) Write in detail about the limit test of Iron. 8
3. Write in detail about the various theories of acids and bases and derive the equation  $p^H + p^{OH} = 14$ . 15
4. Write notes on any **THREE** of the following :—
  - (a) Antidotes
  - (b) Dentrifrices
  - (c) Saline Cathartics
  - (d) Antioxidant. 5×3=15
5. (a) What are major intra and extra cellular electrolytes ? Write in detail about the electrolytes combination therapy. 7  
 (b) What are radio pharmaceuticals ? Explain the role of Barium sulphate as radio-opaque contrast media along with applications of radiopharmaceuticals. 8

6. (a) Define the term expectorant and enlist the various inorganic compounds which are used as expectorants and write in detail about any two compounds. 7
- (b) What do you mean by Topical agents ? Classify the various topical agents and give the mechanism of action of antimicrobial agents. 8
7. Write notes on any **THREE** of the following :
- (a) Respiratory stimulants
  - (b) Pharmaceutical Buffers
  - (c) Modified Guitzet's test
  - (d) Sterile Water for Injection. 5×3=15