B. Pharmacy 1st Semester Examination
Pharmaceutical Chemistry-I (Inorganic Chemistry) (O.S.)
HBP-109

Time : 3 Hours  Max. Marks : 80

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all selecting one question from each Section A, B, C and D. Section E is compulsory.

SECTION - A

1. (a) What is a buffer? Write the mechanism of buffer action and explain buffer capacity.  (8)
   (b) Write a note on official buffers.  (8)

2. (a) Describe the importance of limit test in pharmaceutical preparations. Write the I.P. limit tests for chloride and sulphate.  (8)
   (b) Discuss the importance of water in pharmaceutical preparations.  (8)

SECTION - B

3. (a) Write short notes on the following:
   (i) Cathartics  (ii) Acidifying agents  (8)
   (b) What are major intra and extra-cellular electrolytes? Write the role of sodium and chloride in the body.  (8)

4. (a) Give an account of official antacids in I.P.  (10)
   (b) Highlight the importance of iron and its compounds.  (6)
SECTION - C

5. Describe the cationic and anionic components of inorganic drugs useful in systemic effects. (16)

6. (a) What are topical agents? How are they classified? Explain their mode of action. (8)
   (b) Write short notes on the following:
       (i) Anticaries agents (ii) Anesthetics. (8)

SECTION - D

7. (a) What are chelating agents? Discuss disodium edetate in detail. (8)
   (b) Write notes on:
       (i) Poisons and antidotes (ii) Excipients (8)

8. (a) Give application of radiopharmaceuticals. (8)
   (b) What are anti-oxidants? How they act? Discuss the criteria for their selection. Illustrate your answer with suitable examples. (8)

SECTION - E

9. (a) Write chemical reaction for limit test of iron.
   (b) Composition of Ringer's injection is ________.
   (c) What is hypercalcemia?
   (d) Milk of magnesia is ____________.
   (e) Differentiate between light and heavy magnesium carbonate.
   (f) Composition of Lugol's solution is ________.
   (g) What are deficiency symptoms of iodine?
   (h) Define units of radioactivity. (2×8=16)