

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2123)

1551

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)**

1551/400

[P.T.O.]

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)**