Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B.Pharm Degree Examination – 09-Nov-2023

Time: Three Hours **Max. Marks: 75 Marks**

PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. CODE: 5004

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
All the questions are compulsory

LONG ESSAYS **2 x 10 = 20 Marks**

1. With a neat labelled diagram of the apparatus used and relevant equations, explain the principle of arsenic limit test I.P

OR

Name two cations and two anions responsible for maintaining homeostasis. Explain their functions and deficiency diseases, if any. Write in detail about composition, use, storage and labelling conditions of Oral Rehydration Solution (ORS)

2. Define and classify antacids with a suitable example each. Explain the conditions required for an ideal antacid. Add a note on combination therapy

SHORT ESSAYS **7 x 5 = 35 Marks**

3. Define the term 'limit test'. Explain the principle involved in the limit test for sulphate

OR

Enumerate the methods to minimize impurities in pharmaceuticals

4. Define buffer. Explain buffer capacity. Mention two pharmaceutical buffers with their uses

OR

Explain the principle with reaction involved in the assay of hydrogen peroxide I.P

5. What are gastrointestinal protective agents? Mention two compounds, their formulae and specific uses.
6. Explain the preparation of potash alum and copper sulphate. Indicate their use.
7. Explain principle with reactions of assay of sodium thiosulphate I.P indicate it use.
8. Define and classify expectorants with suitable example each. Explain the preparation of any one.
9. What are radiopharmaceuticals? Elaborate on the effect of radiation on the human body.

SHORT ANSWERS **10 x 2 = 20 Marks**

10. Explain the role of: 'nitric acid in chloride limit test and acetic acid in heavy metal limit test'.
11. Explain the role of ammonia and citric acid in iron limit test.
12. Define saline cathartics with example.
13. Define desensitizing agents with two examples.
14. Explain the role of fluoride in dental products.
15. Achlorhydria and its treatment.
16. Chemical name, formula, use and storage condition of chlorinated lime.
17. **Write the mechanism of action of antidotes**
18. Define Hematinic. Give two examples along with their formulae.
19. Mention any two precautions when handling radiopharmaceuticals.

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