QP CODE:101006 (Old Scheme) **Reg.No: ……..**

First Year B.Pharm Degree Supplementary Examinations, February 2016

PHARMACEUTICAL CHEMISTRY - I

(Inorganic & Physical Chemistry)

(2010 - Scheme)

Time: 3 Hours **Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

Essay **(3x10=30)**

1. Explain various sources of impurities in pharmaceutical substances with suitable examples.
2. Discuss the preparation, assay, labeling and storage of oxygen & nitrous oxide.
3. Explain the limit test for iron and chloride with principle and reaction.

Short notes **(14x5=70)**

4. What are antimicrobials and mention the principle involved in the assay of chlorinated lime.
5. Discuss briefly about physiological importance of essential trace elements.
6. What are radio isotopes and mention its pharmaceutical applications.
7. Define and classify antacids. Add a note on acid neutralizing capacity of aluminium hydroxide gel.
8. Explain the assay method and medicinal uses of selenium sulphide.
9. What are sclerosing agents and mention the method of preparation and assay of ammonium chloride.
10. Complete and balance the following equations:
    - $H_3AsO_3 + H_2 \longrightarrow$
    - $KMnO_4 + H_2SO_4 + H_2C_2O_4 \longrightarrow$
    - $NH_4Cl + HCHO \longrightarrow$
    - $I_2 + Na_2S_2O_3 \longrightarrow$
    - $KMnO_4 + C_2H_5OH \longrightarrow$
11. Explain the preparation, uses and assay of ferrous sulphate.
12. Explain the structure and pharmaceutical applications of dimercaprol & 1,10-phenanthroline.
13. Explain in detail electrolyte combination therapy with examples.
14. Explain elevation of boiling point for the determination of a molecular weight of a non-volatile solute.
15. Explain Freundlich adsorption isotherm with equation.
16. Explain optical rotation with diagram.
17. Explain Debye-Huckel theory.

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