

First Year Pharmacy
PHARMACEUTICAL CHEMISTRY - I
(102)

Time : Three Hours

Maximum Marks : 80

- Note :** i) Attempt total *six* questions. Question No.1 is compulsory.
 From the remaining questions attempt any *five*.
 ii) Illustrate your answer with neat sketches wherever necessary.

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1. Define any five of the following with examples. 10
 - a) Extracellular electrolytes
 - b) pH
 - c) Antimicrobials
 - d) Expectorants
 - e) Acidifying agents
 - f) Astringents
2. Solve any four of the following: 14
 - a) Define acids-bases as per Lewis acid-base concept. Give two examples of each.
 - b) Define Antioxidants. Give criteria for selection of antioxidants.
 - c) Give properties and uses of any two:
 - i) Ammonia solution strong
 - ii) Hypophosphorous acid
 - iii) Nitrogen **RGPVonline.com**
 - d) Define and classify buffers. Explain buffer capacity.
 - e) Write the identification test of the following:
 - i) Carbonate
 - ii) Strontium

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3. Solve any four of the following:
 - a) List the gastrointestinal agents, with examples.
 - b) Give properties and uses of the following:
 - i) Hydrochloric acid
 - ii) Sodium bicarbonate
 - c) What are protective and adsorbents? Write the properties and uses of Kaolin.
 - d) What is poison? Discuss antidotes used in cyanide poisoning.
 - e) Explain the term saline cathartic. Give properties and uses of magnesium sulfate.
4. Solve any four of the following: 14
 - a) What are topical agents? Classify them giving suitable examples.
 - b) Define Inhalants. State the storage condition for oxygen and nitrous oxide.
 - c) Give the mechanism of action of inorganic antimicrobials.
 - d) Explain Anticaries and desensitising agents. Give properties and uses of strontium chloride.
 - e) Give properties and uses of the following:
 - i) Calamine **RGPVonline.com**
 - ii) Potassium permanganate
5. Solve any four of the following: 14
 - a) Explain physiological acid base balance is maintained in the body.
 - b) What is meant by oral Rehydration therapy?
 - c) Write the chemical formulae of the following:
 - i) Potassium citrate
 - ii) Potassium Acetate
 - d) What is composition of ORS recommended by UNICEF.
 - e) Mention the storage condition of the following:
 - i) Sodium chloride
 - ii) Sodium citrate **RGPVonline.com**

6. Solve any four of the following: **RGPVonline.com** 14
- a) Enlist the various sources of impurities in pharmaceutical compounds.
 - b) Give the properties and uses calcium gluconate.
 - c) Write the principle for limit test for Iron
 - d) Enlist the official compounds of calcium as per I.P. 1996.
 - e) Why potassium cyanide and ammonia solution is used in limit test for lead (I.P.)? **RGPVonline.com**
7. Solve any four of the following: 14
- a) What are the biological effects of radiations?
 - b) Explain construction and working of G.M. counter.
 - c) Explain the role of Iron in the body.
 - d) Write only the names of four radionuclides with its uses.
 - e) What are radio-opaque contrast medium? Give an account of **Barium sulphate**.
8. Write short note on any four of the following: 14
- a) Iodine
 - b) Antimony Potassium Tartrate
 - c) Respiratory stimulants
 - d) Importance of quality control
 - e) Chlorinated lime **RGPVonline.com**

