

FEBRUARY 2009

[KU 735]

Sub. Code: 4226

FIRST B.PHARM. DEGREE EXAMINATION

(Regulations 2004)

(Candidates admitted from 2004-05 onwards)

Paper I – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code : 564226

Time : Three hours

Maximum : 90 marks

I. Essay Questions :

(2 X 20 = 40)

Answer any TWO questions.

1. a) Describe the sources of impurities in pharmaceutical substances. Explain the principle involved in the limit test for sulphate with equation. **(13)**
b) Write the clinical applications of I^{131} cobalt 58 and barium sulphate. **(7)**
2. a) Define antacid? Classify antacids and advantages of combination therapy. **(12)**
b) Write the properties and assay, uses of magnesium trisilicate: **(8)**
3. a) Explain the theories of co-ordination compounds?. Write the applications in pharmacy for the following compounds. i) Dimercapral ii) EDTA. **(14)**
b) Explain the Indian pharmacopiea and monograph with an examples. **(6)**

II. Write Short Notes : Answer any EIGHT questions.

(8X 5 = 40)

1. What is radioactivity? How to measure Radioactivity and explain any one method.
2. Write short note on limit test for Arsenic?
3. Short notes on: a) Magnesium hydroxide. b) Activated charcoal
4. a) Write a note on protectives give two examples.
b) Write short note on Calamine.
5. a) Write the principle involved in the assay of boric acid.
b) Explain the method of preparation of lithium aluminium hydride.
6. What are the medicinal gases? How to prepare and assay of carbondioxide?
7. a) Explain the physiological role of trace ions.
b) Short note on Ion-dextron injection.
8. Give the preparation and uses of any two antioxidants.
9. Write short note on anticaries agents.
10. Expectorants.

III. Short Answers: Answer any FIVE questions.

(5X2 = 10)

1. Define sedatives with examples.
2. Complete the following reactions:
a) $Na_2CO_3 + H_2O + 2SO_2 \rightarrow$ b) $NaOH + HCl \rightarrow$
3. Give the preparation and uses of ferrous sulphate.
4. Write the physiological role of a) Sodium b) Magnesium.
5. Define the terms: a) Antacids. b) antimicrobials
6. Write the pharmaceutical application of
a) Cyanocobalamin (Co58) b) Sodium phosphate (P^{32}).
7. Write the molecular formula of the following:
a) Lithium aluminium hydroxide b) Thionyl chloride.

FEBRUARY 2011

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Q.P. Code : 564226

Time : Three hours

Maximum : 90 marks

I. Essay Questions : Answer any TWO questions. (2 x 20 = 40)

1. (a) What are the sources of impurities in pharmaceutical substances? Explain with examples.
(b) Explain the limit test for Arsenic. (12 + 8)
2. (a) Define antacids. Classify with examples. Write in detail note about aluminium Hydroxide gel? (10)
(b) Explain the theory of co-ordination compounds giving importance to its application in pharmacy and pharmaceutical analysis. (10)
3. Write the preparation and uses of following compounds :
 - (a) N-bromo succinamide
 - (b) Per iodic acid
 - (c) Thionyl chloride
 - (d) Diazomethane.

II. Write short notes : Answer any EIGHT questions. (8 x 5 = 40)

1. Define modern periodic table and write its merits and demerits.
2. Give the preparation, assay and uses of the following :
 - (a) Copper sulphate
 - (b) Sodium Citrate.
3. Write short notes on physiological acid-base balance and its importance.
4. Write a note on the measurement of Radio-activity.
5. Define the terms with examples.
 - (a) Antacid
 - (b) Astringent
 - (c) Laxative
 - (d) Anti septic
 - (e) Disinfectant.

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6. Write the principle involved in the limit test for chloride and sulphate.
7. Write a note on calamine Lotion.
8. What is an expectorant? Write the preparation and assay of ammonium chloride.
9. Explain the principle involved in the limit test for Iron.
10. Write short notes on Pharmacopoeia.

III. Short Answers : **Answer any FIVE questions.** **(5 x 2 = 10)**

1. Why dil. HCl Alcohol is used in the limit test for sulphate?
2. Why dil. HNO₃ is used in the limit test for chloride?
3. What are Ideal Antacids?
4. What are the different Iodine solutions and explain in detail about the Iodine solutions?
5. Give the assay of oxygen.
6. What are Respiratory stimulant? Give the uses of Ammonium carbonate.
7. Write short notes on Dimethicone.
