

(LM 2007)

MARCH 2018

Sub. Code: 2007

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: **(2 x 10 = 20)**

1. Give the principle reaction involved in the limit test for Arsenic with a neat diagram of the apparatus used for it.
2. Define Radioactivity. How to measure radioactivity and explain the storage condition and precaution to be followed when handling radioactive substance?
3. Give the functions of major physiological ions used as electrolyte in the replacement therapy. Give the composition and uses of Oral rehydration salt.

II. Write notes on: **(7 x 5 = 35)**

1. What are antidotes? Give the preparation, properties, assay and uses of Sodium thiosulphate.
2. What are buffers? Give the types of buffers, preparation and stability of buffers used in pharmaceutical substances.
3. What are properties of α , β and γ rays?
4. What are Anti-microbials? Write the preparation and assay of Hydrogen peroxide.
5. Brief account about the Iodine and its solution.
6. What are expectorants? Give the preparation, properties, assay and uses of ammonium chloride.
7. Brief history of Indian Pharmacopeia.
8. Write the sources of impurities in pharmaceutical substances.
9. Write about the principle and reaction involved in the limit test of chlorides.

III. Short answers on: **(10 x 2 = 20)**

1. Define radio isotopes.
2. Write about the formula of any two emetics.
3. Define cathartics and give the formula of sodium orthophosphate.
4. Write about the formula of any two antacids.
5. Write about the formula, properties and uses of Ferrous Gluconate.
6. What is the use of activated Charcoal?
7. What are dentrifices? Give the role of fluorides in dental products.
8. Define isotonicity.
9. Write about the formula, properties and uses of Calicium gluconate.
10. What are acidifiers with two examples?

(LN 2007)

SEPTEMBER 2018

Sub. Code: 2007

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
FIRST YEAR
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. a) Write the principle and reaction involved in the limit test for Iron.
b) Write a note on Indian Pharmacopoeia.
2. a) Write about role of fluoride in the treatment of dental caries.
b) Write a note on Zinc eugenol cement.
3. a) Define and classify antimicrobial with example.
b) Write about the preparation, assay and uses of chlorinated lime.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain the methods of adjusting isotonicity.
2. Write about the preparation, assay and uses of calcium gluconate.
3. Explain the principle and reaction involved in the limit test for lead.
4. Define alum and gives the formula, properties and uses of potash alum.
5. Write a note on Sodium iodide - ^{131}I .
6. Write about the preparation, assay and uses of copper sulphate.
7. Define antacid and gives a brief note on combination of antacids.
8. Briefly describe physiological acid base balance.
9. Discuss about measurement of radio activity.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define Haematinics and give example.
2. Write the formula and uses of potassium chloride.
3. Define emetics and give one example.
4. Define Half life period.
5. Principle of limit test for sulphate.
6. Write the principle involved in assay of ammonium chloride.
7. Define astringent and give example.
8. Write about Poison.
9. Define buffer capacity.
10. Write the composition of oral rehydration salt?

(LO 2007)

MARCH 2019

Sub. Code: 2007

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Describe in detail about buffered isotonic solutions, methods of adjusting tonicity and measurement of tonicity.
2. a) Write a brief note on sources of impurities in pharmaceuticals.
b) Write the principle and reaction involved in the limit test for lead.
3. Define cathartic and discuss about the properties and uses of the followings:
a) Magnesium sulphate b) Sodium ortho phosphate c) Kaolin d) Bentonite

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Discuss about the storage condition, precaution and handling of radioactive materials.
2. Write about the preparation, assay and uses of ammonium chloride.
3. Explain the principle and reaction involved in the limit test for iron.
4. Define alum and give the formula, properties and uses of calcium carbonate.
5. Write a note on emetics.
6. Write about the preparation, assay and uses of ferrous sulphate.
7. Define radioactivity and give a brief note on alpha, beta and gamma radiation.
8. Write about the preparation, assay and uses of chlorinated lime.
9. Discuss about the preparation, properties and uses of sodium bicarbonate.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Write the formula and uses of ferrous sulphate.
2. Write the assay of sodium thiosulphate.
3. Define cathartic and give example.
4. Write the principle involved in assay of sodium chloride.
5. Principle of limit test for chloride.
6. Define expectorant and give one example.
7. Give the assay of copper sulphate.
8. Write the formula and uses of potassium permanganate.
9. Define pharmacopoeia.
10. Write the ideal properties of antacid.

(LP 2007)

SEPTEMBER 2019

Sub. Code: 2007

B.PHARM. DEGREE EXAMINATION
PCI Regulation SEMESTER – I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Discuss in detail about the apparatus and principle involved in the limit test for Arsenic.
2. Classify Antacid and write a note on acid neutralizing capacity of Aluminium Hydroxide gel. Give the preparation, assay and properties of any one Antacid.
3. a) Explain the role of Electrolytes in acid base balance.
b) Give the preparation, assay and uses of Sodium chloride.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Define Antidotes and write a note on sodium nitrite.
2. What are the precautions to be followed while handling radioactive materials?
3. Write notes on combination of Antacids.
4. Write the principle involved in the limit test for Iron.
5. Write the preparation, properties, assay and uses on Hydrogen peroxide.
6. Define the terms with examples.
a) Antacid b) Astringent c) Laxative d) Antiseptic e) Disinfectant.
7. Define Haematinics. Write the method of preparation, assay and uses of Ferrous Sulphate.
8. Give the precautions and pharmaceutical applications of radioactive substances.
9. Describe about the Calcium carbonate.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define dentifrices with examples.
2. Write a note on assay of ammonium chloride.
3. Write the composition of Ringer's solution.
4. Osmotic laxative.
5. Define antidotes with examples.
6. What are official compounds of iron?
7. Radio opaque contrast medium.
8. Write the role of fluoride in the dental caries.
9. Boric acid + Glycerol →.
10. Write a note on alum.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LR 0121]

JANUARY 2021

Sub. Code: 2007

(MARCH 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI Regulation SEMESTER – I

PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. (a) Classify Antacids and write a note on ideal properties of Antacids and combination of Antacids.
(b) Give the preparation, assay and uses of Sodium bicarbonate.
2. (a) Classify Antimicrobials with examples.
(b) Write the preparation, assay and uses of Chlorinated lime.
3. What are the Buffers? Write in detail about Buffered isotonic solutions and their use in Pharmaceutical formulations?

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Write the preparation, assay and uses of Ammonium chloride.
2. What are the Properties of α , β and γ rays?
3. Role of Fluorides in treatment of Dental caries with an example
4. What are Emetics? Give the preparation, properties and uses of Copper sulphate.
5. What are Haematinics? Write the method of preparation, assay and uses of Ferrous sulphate.
6. Give the composition and uses of Oral Rehydration Salt.
7. Give the properties and uses of the following. (a) Kaolin (b) Sodium ortho phosphate.
8. Write short notes on Iodine and its Preparations.
9. Write a note on Indian Pharmacopoeia.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Principle involved in limit test of Iron.
2. Define Cathartics and give an example.
3. Define Buffer capacity.
4. Define Half life period.
5. Define Expectorant.
6. Properties and uses of Potassium permanganate
7. Pharmaceutical application of Radioactive isotopes.
8. Give the composition of Ringer solution.
9. Properties and use of Sodium iodide
10. Properties and uses of Aluminium hydroxide gel.

[BPHARM 0921]

SEPTEMBER 2021
(SEPTEMBER 2020 EXAM SESSION)

Sub. Code: 2007

B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY
Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. What are Limit tests? Discuss in detail about the principle involved in the limit test of Iron.
2. Discuss in detail the different methods used in the measurement of Radioactive substances with a note on their storage conditions.
3. Write a detailed note on electrolytes used in Replacement therapy and importance of Oral Rehydration Salt (ORS).

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. What are Antacids? Give the preparations, properties and uses of Sodium bicarbonate.
2. Give the principle, and reaction involved in limit test of Chloride.
3. Role of Fluorides in treatment of Dental caries.
4. What are Antidotes? Give the preparation, properties and use of Sodium thio sulphate.
5. Define the terms: (a)Expectorants (b)Laxatives (c)Astringents (d)Disinfectants.
6. Give the properties and uses of the following. (a)Kaolin (b)Sodium ortho phosphate.
7. Write short notes on Iodine and its preparations.
8. What are Emetics ? Give the preparation , properties and use of Copper sulphate.
9. Write a short note on sources of impurities in Pharmaceutical substances.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. What are Electrolytes?
2. Any two applications of Radioisotopes.
3. Give the properties and use of Ferrous sulphate.
4. Write a note on Alum.
5. Define Isotonicity.
6. What are Acidifiers?
7. Preparation and uses of Calcium carbonate.
8. What are Haematinics?
9. Define Buffer capacity.
10. Properties and use of Potassium permanganate.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 0122]

JANUARY 2022
(MARCH 2021 EXAM SESSION)

Sub. Code: 2007

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

PCI Regulation 2017 – SEMESTER I

PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. (a) What is physiological Acid Base Balance?
(b) Give the composition and uses of Oral Rehydration Salt.
2. Write the method of preparation, assay and uses of
(a) Sodium Chloride.
(b) Ferrous sulphate.
3. Write a detailed note on mechanism of Antimicrobials and highlight on the use of Iodine and its preparation as antimicrobials.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Write the principle involved in the limit test of Sulphates.
2. Write a note on Indian pharmacopoeia.
3. Write about the preparation, assay and use of Calcium gluconate.
4. What are Expectorants? Give the preparation, properties, assay and use of Ammonium chloride.
5. Define Alum and give the formula, properties and uses of Potash alum.
6. Write the preparation, properties, assay and uses of Chlorinated lime.
7. Write short notes on Iodine and its preparations.
8. What are Cathartics? Give the preparation and properties of Bentonite.
9. What are Antidotes? Give the preparation, properties and uses of Sodium thiosulphate.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define Haematinics and give one example.
2. Give the storage conditions of Radio isotopes.
3. Define Astringent and give an example.
4. Uses of Citric acid in the limit test of Iron.
5. What is the use of activated Charcoal.
6. Give the formula and use of (a) Calcium carbonate (b) Zinc eugenol cement.
7. Define Dentifrice with example.
8. Enumerate the ideal properties of Antacids.
9. Give the principle involved in the limit test of Chloride.
10. Define Osmotic laxative.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[BPHARM 0522]

**MAY 2022
(SEPTEMBER 2021 EXAM SESSION)**

Sub. Code: 2007

**B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY
Q.P. Code: 562007**

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Write the Principle and reaction involved in Modified limit test for chlorides and sulphates.
2. Define Radioactivity and explain the properties of α , β and γ radiations with suitable storage and precaution conditions.
3. Write the preparation involved in the Non-Electrolytic method of Hydrogen Peroxide with Assay and uses.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. What is the importance of Buffers in Pharmacy?
2. Add a note on ideal properties of Antacids.
3. Write a note on Role of fluoride in the treatment of Dental caries.
4. Briefly discuss about history of Pharmacopoeia.
5. What is the composition and uses of Oral Rehydration salts?
6. Give the Preparation, Assay and Uses of Ammonium Chloride.
7. Define Haematinics and give the preparation and uses of Ferrous Sulphate.
8. What are the methods involved in adjusting Isotonicity.
9. Define Radioisotopes and Half life period of radioactivity.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define Cathartics.
2. Give the storage conditions of Radio isotopes.
3. Define Astringent and give an example.
4. Uses of Citric acid in the limit test of Iron.
5. Define Antidote.
6. Limit Test.
7. Define Magaldrate.
8. Define Electrolytes
9. Give the principle involved in the limit test of Chloride.
10. Define Antimicrobials agent.

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[BPHARM 1022]

**OCTOBER 2022
(MARCH 2022 EXAM SESSION)**

Sub. Code: 2007

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY
Q.P. Code: 562007**

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Write the Principle and reaction involved in limit test for Iron and Sulphate.
2. Define Antidote with example. Give the Preparation, Assay and uses of sodium thiosulphate.
3. Define Buffer, Buffer capacity and calculation methods for adjusting Isotonicity.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. What are the types of impurities?
2. Add a note on Zinc eugenol cement.
3. Write a note on combination of Antacid.
4. Briefly discuss about Physiological role of electrolytes in Acid base balance.
5. Explain the Swelling power in Bentonite.
6. Give the Preparation, Assay and Uses of Sodium bicarbonate.
7. Discuss the ideal properties in Antacids.
8. Give the Preparation, Assay and Uses of Chlorinated lime.
9. Brief note on Sodium Iodide ¹³¹ radioisotopes.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

Define the following with an example:

1. Expectorants.
2. Emetics.
3. Haemintinics.
4. Antimicrobial agents.
5. Acidifiers.

Give reasons for the following:

6. Alcohol in Modified Limit test for Chloride and Sulphate.
7. Silver nitrate in the limit test for Chloride.
8. Formaldehyde in the Assay of Ammonium chloride.
9. How does Iodine act as Disinfectant?
10. Replacement of Sodium citrate in Oral rehydration salt.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[B.PHARM 0323]

**MARCH 2023
(SEPTEMBER 2022 EXAM SESSION)**

Sub. Code: 2007

**B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)
PCI Regulation 2017 – SEMESTER I
PAPER IV – PHARMACEUTICAL INORGANIC CHEMISTRY**

Q.P. Code: 562007

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Define and classify Antacids. Write about the combination therapy of antacid and method of preparation and assay involved in Sodium bicarbonate.
2. Brief history of Indian Pharmacopeia.
3. Write the sources of Impurities in pharmaceutical substances.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Explain the principle and procedure involved in the limit test for lead.
2. Define saline cathartic. Write the method of preparation of any two saline cathartic.
3. Give in detail about ORS.
4. Write note on acid base balance.
5. Discuss in detail about the physiological role of Iron.
6. Write about Expectorants.
7. Write about Dentifrices.
8. Write about Respiratory stimulant.
9. Write short note on Antidotes.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Write the storage condition of radioactive isotopes.
2. Define the term rebound acidity.
3. Pharmaceutical role of Electrolytes.
4. Define Emetics with examples.
5. Properties of α , β and γ rays.
6. Molarity.
7. Buffer capacity.
8. Classify topical agent with examples.
9. Isotonicity.
10. Write about Poison.
