Time: 3 Hours   **Max.Marks:75**

PART - A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Define volumetric analysis and list out the types of Volumetric analysis.
2. What is Pharmacopoeia? Mention different pharmacopeias
3. What is neutralization titration? Give one example.
4. List out the types of redox titrations.
5. Mention different electrodes used in potentiometry
6. What are metal indicators and mention any three metal indicators.
7. Define limit test and write its significance
8. Write the applications of polarography.
9. Define molarity and Normality
10. Differentiate Iodimetry and Iodometry.

PART - B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Write the theories of acid-base indicators.
12. Discuss the principle and steps involved in gravimetric analysis with example.
13. Write the Principle, method and applications of Counductometry.

PART - C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Write briefly about different types of errors.
15. Write a note on Buffer solutions and their applications in Pharmaceutical Analysis.
16. Write properties of primary standard and secondary standard substances and give the examples.
17. How do you prepare and standardize 1N sodium hydroxide solution?
18. Write in detail any one method of precipitation titrations.
19. Define limit test and explain the limit test for iron.
20. Discuss the principle and write the applications of diazotization titrations.
21. Write the construction and working of standard hydrogen electrode.
22. Explain the principle and applications of precipitation titrations with example.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2023
Subject: Remedial Biology

Time: 1.5 Hours   **Max. Marks: 35**

**Note: Answer any One Question from Part-A and any five questions from Part-B.
Draw neat labelled diagram where ever necessary**

PART – A (1 x 10 = 10 Marks)

1 Describe the dark reactions of photosynthesis in plants. Explain the factors effecting photosynthesis.

2. Describe the structure and of human excretory system and process of urine formation with neat labelled diagram.

PART – B (5 x 5 = 25 Marks)

3. Discuss the function of hormones.

4. Classify the animal tissues and write their functions.

5. Differentiate between prokaryotic and eukaryotic cell.

6. Describe anatomy of Dicot root.

7. Explain the structure of neuron with neat labelled diagram.

8. Write a brief note on stem modification.

9. Write a note on five kingdom system.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2023
Subject: Remedial Mathematics

Time: 1 ½ Hours   **Max. Marks: 35**

Note: Answer one question from Part – A and any five questions from Part –B.

PART – A (1 x 10 =10 Marks)

1. Solve $2x - y + 3z = 9,\ x + y + z = 2$ using Cramer's Rule.

2. Resolve into partial fractions $\dfrac{2x - 6}{(2x + 3)\ (x - 1)}$.

PART – B (5 x 5 =25 Marks)

3. If $x = 1 + log_a\ bc, y = 1 + log_b\ ca, z = 1 + log_c\ ab$ prove that $xyz = xy + yz + zx$.

4. Find the equation of straight lines cutting off intercepts a, b on the coordinate axes such that $a + b = 5, ab = 6$.

5. Find the derivative of $\dfrac{e^{\sin x}}{\cos x}$.

6. Evaluate $\int \sin(3 - 4x)dx$.

7. Find Laplace transform of $7t^3 - 2\cos t$.

8. If $A = \begin{bmatrix} 2 & 3 \\ -1 & 2 \end{bmatrix}$ show that $A^2 - 4A + 7I = 0$.

9. Evaluate $\displaystyle \lim_{x \to 3} \frac{x^2 - 9}{x - 3}$.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2023
Subject: Communication Skills

Time: 1 ½ Hours   **Max Marks: 35**

PART – A

Note: Answer any one questions   **(1 x 10 = 10 Marks)**

1. Describe the Barriers of Communication.

2. Describe the various elements of Communication.

PART – B

Note: Answer any five questions.   **(5 x 5 = 25 Marks)**

3. How to become an Active Listener?

4. What are the Do's and Don'ts of group discussion?

5. What is the role of Body Language in Communication?

6. What are the ways to overcome nervousness before an interview?

7. Write about the Communication process.

8. What are the techniques of delivering a presentation?

9. Write a Job application letter for the post of production manager in a reputed Pharmaceutical Company.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2023
Subject: Human anatomy and Physiology-I

Time: 3 Hours   **Max.Marks:75**

PART - A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Define Homeostasis and Hemopoiesis?
2. Define Signal transduction in cell communication?
3. List the bones in appendicular skeleton?
4. Write the functions of synovial joints?
5. Write the functions of platelets?
6. Explain the terms vasodilation and vasoconstriction?
7. Write the functions of Xth cranial nerve?
8. List different types of taste buds?
9. Explain the terms End systolic volume and End diastolic volume?
10. Write the structure and functions of endoplasmic reticulum?

PART - B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Define blood pressure and explain its regulation mechanisms?
12. Describe the structure of eye? Explain the physiology of vision?
13. Classify tissues? Explain in detail about different types of epithelial tissues?

PART - C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Describe the structure and functions of hyaline and elastic cartilage?
15. Draw a neat labelled diagram of skin?
16. Explain the structure and function of following bones. (i) Sternum (ii) Lumbar vertebra.
17. Define ECG and correlate ECG with the events of cardiac cycle.
18. Explain the physiology of balance?
19. Explain the composition and functions of blood?
20. Explain the structure and functions of lymph nodes with a neat labelled diagram?
21. Explain in detail about the structure and functions of plasma membrane with a neat labelled diagram?
22. List out cranial nerves and write their functions?

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2023
Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours   **Max Marks: 75**

PART – A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Write about oral rehydration salts.
2. Give the physiological role of calcium.
3. What are dentifrices? Give some examples.
4. Write are antidotes. Mention the antidotes used in cyanide poisoning.
5. Write the composition of ringer's injection.
6. Define antacids and give with examples.
7. Write the category and importance of ferrous gluconate.
8. Define impurity and give three examples.
9. Give the difference between Antiseptic and Disinfectant.
10. What is radioactivity and its significances?

PART – B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Define isotonic solution. Explain the methods of adjusting tonicity.

12. (a) Write the significances of Antacids. Give the method of preparation, assay and uses of Sodium bicarbonate.
    (b) Give the method of preparation, assay and uses of Hydrogen peroxide.

13. Explain principle and procedure involved in the limit test for Iron and Chlorides.

PART – C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Write preparation, properties and uses of Potassium iodide and sodium nitrite.
15. Define Astringent. Write the method of preparation and uses of Zinc sulphate.
16. Explain the principle and procedure involved in the limit test for Lead.
17. Add a note on Emetics.
18. Discuss the Pharmaceutical applications of Radioactive substance.
19. Write a note on Physiological acid –base balance.
20. Write the preparation, assay and uses of Sodium thiosulphate.
21. What are Antimicrobial and give four examples. Explain mechanism of action.
22. List out the various classes of Cathartic agents with examples.

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FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Backlog) Examination, November 2023
Subject: Pharmaceutics

Time: 3 Hours   **Max.Marks:75**

PART - A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Define creams and pastes.
2. Explain the preparation of any one effervescent powder.
3. What are gelling agents, give two examples?
4. What is displacement value? Write its importance.
5. Define chemical incompatibility. Give two examples.
6. Differentiate gargles and mouthwashes.
7. Find the strength of 75% v/v alcohol in terms of Proof spirit.
8. Define and classify powders with examples.
9. Write the formula for cold cream.
10. Define syrups and elixirs.

PART - B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Explain the methods of preparation of ointments.
12. Define and classify incompatibility. Explain physical incompatibility and methods to overcome physical incompatibility with examples.
13. What are Suppositories? Write a note on different bases used in preparation of Suppositories?

PART - C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Define prescription. Explain various parts of prescription.

15. Explain therapeutic incompatibility.

16. Discuss about formulation of liquid dosage forms with examples.

17. Explain in brief about any six factors affecting posology.

18. What are the salient features of Indian Pharmacopoeia?

19. Explain the preparation of vanishing cream.

20. Explain the tests for identification of type of emulsions.

21. Prepare 900ml of 60% v/v alcohol from 90% v/v alcohol and 30% v/v alcohol.

22. Explain various methods to adjust isotonicity.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2022
Subject: Communication Skills

Time: 1.5 Hours   **Max. Marks: 35**

PART – A

Note: Answer any one questions.   **(1 x 10 = 10 Marks)**

1. What is the purpose of Group discussion? What are the do's and don'ts of Group discussion?

2. Write a paragraph of 250 words on 'Azadi Ka Amrit Mahotsav'.

PART – B

Note: Answer any five questions.   **(5 x 5 = 25 Marks)**

3. Discuss the role of Non Verbal Communication?

4. How to become an Active Listener?

5. What are the Do's and Don'ts of an interview?

6. Write about dealing with fears and planning your Presentation?

7. Draft a job application letter for the post of marketing executive in a reputed pharmaceutical company.

8. Discuss the importance of Communication.

9. Write about the Barriers of Communication.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2022
Subject: Human Anatomy and Physiology - I

Time: 3 Hours   **Max. Marks: 75**

PART - A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Describe the general features of muscle tissue.
2. List the sub types of synovial joints.
3. Explain the terms of (a) End diastolic volume (b) End systolic volume.
4. Explain the terms (a) Angina pectoris (b) Hypertension.
5. Explain different types of WBC cells.
6. Write the functions of skin.
7. Name the valves of heart and write their location in heart.
8. Explain the structure location and functions of stratified epithelium.
9. Write the functions of mitochondria.
10. Write the composition of blood.

PART - B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Define cardiac cycle? Explain in detail the phases of cardiac cycle.
12. Define clot. Explain various pathways in the process of blood clotting.
13. What are the components of neuromuscular junction and explain the process of muscle contraction in detail.

PART - C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Explain the structure and function of following bones with neat labelled diagram.
    (i) Femur (ii) Thoracic vertebra.
15. Explain the structure and functions of a cell.
16. List the differences between sympathetic and parasympathetic nervous system.
17. Explain in detail the life cycle of RBC cells.
18. Explain anatomy of eye with a neat labelled diagram.
19. Describe the types of muscle tissue with neat labelled diagram.
20. Explain about pulmonary circulation of blood.
21. Describe the functions of the lymphatic system.
22. Describe the structure and functions of thymus gland.

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FACULTY OF PHARMACY

B. Pharmacy I-Sem. (PCI) (Backlog) Examination, November 2022
Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours   Max. Marks: 75

PART – A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Differentiate between limit test and assay.
2. Define the term test for purity? Mention the methods to purify inorganic substances.
3. List out the methods of adjusting isotonicity.
4. What is a buffer? Give two examples for buffer systems.
5. Mention the different types of acidifiers with their uses.
6. Define a catharatic. Give some examples.
7. Define an emetic. Give examples.
8. What is dental fluorosis?
9. Give the applications of radiopharmaceuticals.
10. Write about oral rehydration salts.

PART – B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Explain the principle and procedure involved in the limit test for arsenic with a neat labeled diagram.
12. (a) What are electrolyte replenishers? Write the method of preparation, assay and uses of potassium chloride.
    (b) What are anticaries agents? Explain the role of fluorides in preventing dental caries.
13. (a) Define and classify antimicrobial agents with examples. Write the mechanism involved.
    (b) Write the method of preparation, assay and uses of ammonium chloride.

PART – C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Explain the principle and procedure involved in the limit test for chlorides.
15. Write the method of preparation, assay and uses of ammonium chloride.
16. What are desensitizing agents? Give examples.
17. Write the preparation, assay and uses of calcium gluconate.
18. Discuss about various sources of impurities.
19. Define astringent? Write the method of preparation and uses of zinc sulphate.
20. What are haematinics? Mention the method of preparation, assay and uses of ferrous sulphate.
21. What are antidotes? Explain about any one antidote used in cyanide poisoning.
22. Write the composition of ringer's solution. Explain its importance.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2022
Subject: Pharmaceutical Analysis

Time: 3 Hours   **Max. Marks: 75**

PART - A
Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Define Volumetry and give the list of various volumetric analytical techniques.
2. Define Errors. Write about the methods to overcome errors in Analysis.
3. How do you prepare and standardize 0.5N NaOH?
4. Write about any three indicators used in acid base titrations.
5. Write the applications of potentiometry.
6. Write about the advantages of Non aqueous titrations.
7. Define Accuracy and precision with example.
8. What is Iodimetry? Give the list of secondary standards used in Iodimetry.
9. Write the advantages of conductometric titrations.
10. Explain the terms Co-precipitation and post precipitation.

PART - B
Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Discuss the theory of redox titrations and explain the principle involved in iodometry and cerimetry.
12. Explain the theory involved in the acid base titrations and discuss about the neutralization curves.
13. Discuss the principle and steps involved in gravimetric analysis with example.

PART - C
Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Write a note on Buffer solutions and their applications in Pharmaceutical Analysis.
15. What is Pharmacopoeia? Discuss about the components of Pharmacopoeia.
16. What are primary standards? Discuss about the primary standards used in redox titrations.
17. Discuss the theory of complexometric titrations with examples.
18. Describe a volumetric method to estimate the chloride ions with example.
19. Discuss the principle and write the applications of diazotization titrations.
20. Write the preparation and standardization of 1N HCl and 1M Sodium Thiosulphate.
21. Write the principle and applications of potentiometry.
22. Write the construction and working of Dropping mercury electrode.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2022
Subject: Pharmaceutics

Time: 3 Hours   **Max. Marks: 75**

PART - A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**
1. Define Aerosols.
2. Classify solid dosage forms.
3. Calculate the dose for 12 years old boy if adult dose is 50mg.
4. Define isotonic solutions with an example.
5. Differentiate simple powders and compound powders with examples.
6. Give any two advantages and disadvantages of suspensions.
7. Define lotions and Liniments.
8. Give an example for physical incompatibility and how do you overcome it.
9. Classify bases used in suppositories with examples.
10. Write the formula for Cold cream.

PART - B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**
11. Define Posology. Describe formulas for pediatric dose calculations based on age, body weight and body surface area.
12. Classify Emulsions. Describe the methods for preparation of emulsions.
13. Describe methods to overcome physical and chemical incompatibility with examples.

PART - C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**
14. Write a note on Indian Pharmacopoeia.
15. Describe Handling of prescription with example.
16. Prepare 500ml of a 1 in 4000 solution from the 1 in 800 solution.
17. Describe preparation of effervescent granules. Give two official preparations.
18. Prepare 500ml of 50%v/v alcohol from 75%v/v alcohol and 30%v/v alcohol.
19. Differentiate flocculated and deflocculated suspensions.
20. Write a note on lotions. Give formula of an official lotion preparation.
21. Calculate the displacement value of Zinc oxide in Theobroma oil suppositories containing 40% of zinc oxide and is prepared in a 1g mould. The weight of 8 suppositories is 11.74gm.
22. Describe the factors influencing dermal penetration of drugs.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2022
Subject: Remedial Biology

Time: 1 ½ Hours   **Max. Marks: 35**

PART - A

Note: Answer any one questions.   **(1 x 10 = 10 Marks)**

1. Describe the dark reaction of photosynthesis in Plants with a note on factors effecting photosynthesis.

2. (a) Describe briefly various components of blood with neat labeled diagrams.
    (b) What are the pathways involved in coagulation of blood?

PART - B

Note: Answer any five questions.   **(5 x 5 = 25 Marks)**

3. Write a note on Binomial method of Nomenclature.

4. Differentiate between prokaryotic and Eukaryotic cells.

5. Describe the mechanism of breathing.

6. Define tissues. Describe various types of plant tissues.

7. Discuss the functions of hormones.

8. Describe the anatomy of monocot stem.

9. Explain how fats gets digested and absorbed in body.

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FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Backlog) Examination, November 2022
Subject: Remedial Mathematics

Time: 1 ½ Hours   **Max. Marks: 35**

PART - A

Note: Answer any one questions.   **(1 x 10 = 10 Marks)**

1. Solve $2X + Y + 3Z = 9, X + Y + Z = 6$ and using matrix inversion method.

2. Resolve $\dfrac{5X + 6}{(2 + X)(1 - X)}$ into partial fractions.

PART - B

Note: Answer any five questions.   **(5 x 5 = 25 Marks)**

3.   **If** $\dfrac{\log_2 a}{4} = \dfrac{\log_2 b}{6} = \dfrac{\log_2 c}{3p}$ and $a^3 b^2 c = 1$ find the value of p.

4. Find the slopes of the lines a) parallel to and b) perpendicular to the line passing through {6,3} and {-4,5}.

5. Find the derivative of $x^{32} + \sin x + \log x$

6. Evaluate $\int \dfrac{2x+1}{x^2 + x + 1} dx$

7. Find the Laplace transform **of** $3' + 6e^{2t}$

8.   If $A = \begin{bmatrix} 2 & 3 \\ - & \end{bmatrix}$ show that $A^2 - 4A + 7I = 0$

9. Evaluate $\lim_{x \to 5} \dfrac{x^2 - 25}{x - 5}$

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FACULTY OF PHARMACY
B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, May 2022
Subject: Human Anatomy and Physiology - I

Time: 3 Hours   **Max. Marks: 75**

PART - A

Note: Answer all questions.   **(10 x 2 = 20 Marks)**

1 List out the mixed cranial nerves. Mention the functions of vagus nerve.
2 Write about the functions of mitochondria with diagram.
3 Define (a) Osmosis (b) Diffusion.
4 Explain the structure and functions of cardiac muscle.
5 List out examples for pivot joint and hinge joint.
6 Write the function of Ca++ ion in muscle contraction.
7 Explain the structure location and functions of cuboidal epithelium.
8 Explain the terms (a) Tachycardia (b) Bradycardia.
9 Write the functions of WBC cells.
10 Write the functions of Skin.

PART - A

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11 Define cardiac cycle? Explain in detail the phases of cardiac cycle.

12 Describe the anatomy of ear with a neat labelled diagram and explain the physiology of hearing.

13 Describe the structure of skeletal muscle and explain in detail the steps involved in muscle contraction.

PART - C

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14 Describe the structure of synovial joints.

15 Explain how an action potential occurs in cardiac contractile fibers.

16 Describe the gustatory pathway to the brain.

17 Describe the major responses of the body to stimulation by the sympathetic nervous system.

18 Explain in detail the structure and life cycle of RBC cells.

19 Explain anatomy of ear with a neat labelled diagram.

20 Describe the three mechanisms that contribute to hemostasis.

21 Outline the steps involved in the sliding filament mechanism of muscle contraction.

22 Describe the functions of the lymphatic system.

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, May

2022 Subject: Remedial Biology

Time: 1 ½ Hours   **Max. Marks: 35**

Note: Answer any one questions from PART-A. and any five questions from PART-B.

PART - A (1 x 10 = 10 Marks)

1. Describe the composition of blood and write a note on blood grouping.
2. Write about leaf modifications with examples and suitable diagrams.

PART - B (5 x 5 = 25 Marks)

3. Describe the types of recimose Inflorescence.

4. Describe the mechanism of breathing.

5. How are carbohydrates digested and absorbed?

6. Discuss the generation and conduction of nerve impulse.

7. Write the salient features of monera and fungi.

8. What is biological nitrogen fixation?

9. Define tissue and describe the types of plant tissues?

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FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Main& Backlog) Examination, May 2022

Subject: Remedial Mathematics

Time: **1 ½ Hours**   Max. Marks: 35

Note: Answer any one questions from Part -A any five questions from Part-B

PART - A (1 x 10 = 10 Marks)

1. Using Cramer's rule Solve $2x-y+3z=9$, $x + y + z = 6$ and $x – y + z= 2$

2. Resolve $\dfrac{5x + 6}{(2 + x)(1 - x)}$ into partial fractions.

PART - B (5 x 5 = 25 Marks)

3. Evaluate $\displaystyle\int_{\sqrt{x}}^{1} Cos\sqrt{x}\ dx.$

4. Differentiate $e^x \tan x$ with respect to x

5. If $A=\begin{bmatrix} 3 & 1 \\ -1 & 2 \end{bmatrix}$ Show that $A^2 -5A+7I=0$

6. Prove that $2 \log \dfrac{3}{5} + 3 \log \dfrac{5}{7} + 2 \log \dfrac{7}{3} = \log \dfrac{5}{7}$

7. Find the line passing through the point (-4, -3) and parallel to the line joining (1, -3) and (-5, 1)

8. Find the Laplace transform of $t^3.\ e^{2t}$

9. Prove $\begin{vmatrix} bc & b + c & 1 \\ ca & c + a & 1 \\ ab & a + b & 1 \end{vmatrix} = (a - b),\ (b - c),\ (c - a)$

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FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Main & Backlog) Examination, May 2022
Subject: Communication Skills

Time: 1.5 Hours **Max. Marks: 35**

PART - A

Note: Answer any one question: **(1 x 10 = 10 Marks)**

1. Discuss in detail the various barriers of communication and its impact.

2. Write a paragraph of 250 words on," Impact of COVID 19 on Education system in India"

PART - B

Note: Answer any five questions: **(5 x 5 = 25 Marks)**

3. What are the ways to overcome nervousness before an interview?

4. Write about the non-verbal communication.

5. Discuss the communication process in detail.

6. Explain the various communication styles.

7. How to become an Active Listener?

8. What are the Do's and Don'ts of Group discussion?

9. Explain the techniques of delivering a presentation.

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FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Main) Examination, May 2022

Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours   **Max. Marks: 75**

PART – A

Note: Answer all the questions.   **(10 x 2 = 20 Marks)**

1. Define the impurity. Give two examples.
2. Write the principle involved in Limit test for Sulphates
3. Define Lewis acid and Lewis base with examples.
4. Differentiate acidifier and antacid.
5. Define cathartics. Classify with examples.
6. Explain the mechanism involved in cyanide poisoning
7. Write the method of preparation and uses of Ferrousgluconate.
8. Define antimicrobials with examples.
9. Write the composition of ORS.
10. What are antacids mention three preparations

PART – B

Note: Answer any two questions.   **(2 x 10 = 20 Marks)**

11. Explain in detail principle, procedure involved in Limit test for Arsenic with neat labelled diagram.
12. What are antimicrobials? Classify, explain the chemical properties of H_2O_2.
13. Write a note on a) Methods to adjust isotonicity

    b) Buffer capacity and buffer equation

PART – B

Note: Answer any seven questions.   **(7 x 5 = 35 Marks)**

14. Define Limit test. Write the principle and procedure involved in limit test for heavy metals.
15. What are Haematinics? Write the preparation, assay and uses of $FeSO_4$.
16. Discuss Labelling, Handling and storage of radio pharmaceuticals.
17. Write about electrolyte combination therapy.
18. Discuss about physiological acid-base balance.
19. Define antidotes Classify; write the method of preparation, and assay of any one antidote.
20. Mention the method of preparation, assay of boric acid, Potassium permanganate.
21. Write the preparation, assay and uses of $CuSO_4$.
22. Write about the storage conditions, precautions and applications of radio pharmaceuticals

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FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Main & Backlog) Examination, May 2022 Subject: Pharmaceutics - I

Time: 3 Hours   Max.Marks:75

PART – A

Note: Answer all the questions.   **(10 X 2 = 20 Marks)**
1. Explain career opportunities for pharmacists.
2. Briefly explain the principle involved in the preparation of Eutectic mixture.
3. How do you prepare 600ml of 60% alcohol using 90% alcohol by using allegation method.
4. Define and classify powders with examples.
5. Differentiate between syrups and elixirs.
6. Differentiate between flocculated and deflocculated suspension.
7. Define therapeutic incompatibility. Explain the terms potentiation and synergism.
8. Write the preparation of cold cream.
9. Explain various bases for the preparation of gels.
10. Explain the principle involved in the preparation of calamine lotion?

PART – B

Note: Answer any two questions.   **(2 X 10 = 20 Marks)**
11. Define & classify suspensions. Explain the preparation and stabilization of suspension.
12. Explain the methods of preparation of ointments.
13. Define and classify in compatibility. Explain chemical incompatibility with examples.

PART – C

Note: Answer any seven questions.   **(7 X 5 = 35 Marks)**

14. What are the salient features of I.P
15. Define prescription. Explain various parts of prescription.
16. Explain various methods to adjust isotonicity. How do you prepare isotonic D-glucose solution using molecular weight method (Molecular weight of D-glucose=180).
17. Briefly explain excipients used in liquid dosage forms.
18. Explain the preparation of Enemas
19. Differentiate between
    a) Gargle and mouthwash   b) Lotions and liniments
20. Explain the preparation of vanishing cream.
21. Write the preparation of Nasal drops.
22. How do you prepare 6 suppositories of 1 gm capacity? Each contain 300mg of bismuth subgallate (Displacement value of bismuth subgallate=3)

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FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, May 2022
Subject: Pharmaceutical Analysis

Time: 3 Hours   Max.Marks:75

Note: Answer All Questions from Part –A, Any two Questions from Part-B.
And any seven Questions from Part-C

PART – A (10 X 2 = 20 Marks)

1. Define volumetric analysis and list out the types of Volumetric analysis.

2. Define accuracy and precision.

3. Write different types of errors.

4. Define primary standard with example.

5. Write the different sources of impurities.

6. List out the indicators used in acid base titrations.

7. Explain Co-precipitation.

8. List out the types of redox titrations.

9. Mention different electrodes used in potentiometry.

10. What are metal indicators?

PART – B (2 X 10 = 20 Marks)

11. Explain the classification of acid base titrations and the theory involved in titration of strong acid against strong base using suitable example.

12. Explain the principle and theory involved in complex metric titration with an example.

13. What is potentiomery? Explain construction and working of electrochemical cell? Mention the applications of potentiometry?

PART – C (7 X 5 = 35 Marks)

14. Discuss the applications of Non-Aqueous titrations?

15. Define limit test. Explain the limit test for heavy metals (Arsenic or Lead).

16. What is conductance? Write about conductivity cell with a neat labeled diagram.

17. Write a short note on types of Complexometric titrations

18. Write the Principle and applications of diazotization titrations?

19. Write the principle involved in potentiometic titrations and give advantages over indicator method?

20. Write the preparation and standardization of 0.5N NaOH and 0.1N HCl

21. Write the principle and applications of Iodometry

22. Write about electrodes used in polarography

FACULTY OF PHARMACY
B. Pharmacy (PCI) I Semester (Backlog) Examination, March 2022

Subject: Pharmaceutical Analysis

Time: 3 Hours   **Max. Marks: 75**

**Note: Answer all questions from Part-A. Any Two questions from Part-B
and any Seven questions from Part-C.**

PART - A (10 x 2 = 20 Marks)

1. Define and Differentiate volumetry and Gravimetry
2. Define limit test and write its significance
3. Mention the primary standards used in Acidimetry and complexometry
4. Write the advantages of Gravimetric Analysis
5. Write the applications of potentiometry
6. Write about indicators used in Non aqueous titrations
7. Discuss the methods to minimize errors in Pharmaceutical Analysis
8. How do you standardize 1N NaOH solution?
9. Write the uses of complexometric titrations
10. Define Buffers and give examples

PART - B (2 x 10 = 20 Marks)

11. Explain the sources of impurities in medicinal agents. Write the limit test for (i) Sulphates (ii) Chlorides
12. Explain the theory involved in the acid base titrations and discuss the neutralization curve for the titration of strong acid and strong base.
13. Write the Principle, method and applications of Counductometry.

PART - C (7 x 5 = 35 Marks)

14. Discuss the theories of pH? Indicators.
15. What is Pharmacopoeia? Discuss about the importance of Pharmacopoeia Monographs
16. Explain the Preparation and standardization of EDTA solution.
17. Write the construction and working of standard hydrogen electrode.
18. Write the properties of primary standards and secondary standards with examples.
19. Explain the Digestion and Co-Precipitation in gravimetric analysis
20. Write the preparation and standardization of 1M $KMnO_4$ and 1N NaOH
21. Write the principle and applications of Polarography
22. Explain the principle involved in the Neutralization titrations using Potentiometry.

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FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Backlog) Examination, March / April 2022

Subject: Remedial Biology

Time: 1½ Hours   **Max. Marks: 35**

Note: Answer one questions from Part -A any five questions from Part-B PART - A (1 x 10 = 10 Marks)

1. a) Write in detail about the composition and functions of blood.
    b) Describe the mechanism of breathing and its regulation

2. Write briefly about stem modifications with suitable diagrams.

PART - B (5 x 5 = 25 Marks)

3. Write a detail note on binomial nomenclature.

4. What are the steps involved in coagulation of blood.

5. Write about cell division.

6. Write down the classification of Tissues.

7. Draw the internal structure of heart and label the parts.

8. Write any six differences between prokaryotes and eukaryotes.

9. Write a brief note on Photosynthesis. What are the factors effecting photosynthesis?

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FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Backlog) Examination, April 2022
Subject: Remedial Mathematics

Time: $1^{1/2}$ Hours   Max. Marks: 35

Note: Answer one questions from part – A and any five questions from part – B

PART – A (1 x 10 = 10 Marks)

1. Solve $2x - y + 3Z = 9, x + y + z = 6$ and $x + y + z = 2$ using matrix inversion method.

2. Resolve $\dfrac{5x + 6}{(2 + x)(1- x)}$ into partial fractions.

PART – B (5 x 5 = 25 Marks)

3. If $\dfrac{\log_2 a}{4} = \dfrac{\log_2 b}{6} = \dfrac{\log_2 c}{3p}$ and $a^3 b^2 c = 1$ find the value of p.

4. Find the slopes of the lines a) parallel to and b) perpendicular to the line passing through (6,3) and (-4,5).

5. Find the derivative of $x^{3/2} + \sin x + \log x$.

6. Evaluate $\int \dfrac{2x + 1}{x^2 + x + 1} dx$.

7. Find the Laplace transform of $3' + 6e_{2t}$.

8. If $A = \begin{vmatrix} 2 & 3 \\ -1 & 2 \end{vmatrix}$ show that $A_2 - 4A + 7I = 0$.

9. Evaluate $\underset{x \to 5}{lt} \dfrac{x^2 - 25}{x - 5}$.

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FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Backlog) Examination, March 2022 Subject:

Human anatomy and Physiology - I

Time: 3 Hours   **Max.Marks:75**

**Note: Answer All Questions from Part -A, Any two Questions from Part-B.
and Any seven Questions from Part-C**

PART – A (10 X 2 = 20 Marks)

1. List different taste buds and write their functions?

2. Name the valves of heart and write their location in heart?

3. Define a) Homeostasis   b) Hemopoiesis

4. Draw a neat labelled diagram of transitional epithelial tissue and write its functions?

5. List out the bones in lower limb?

6. Write the functions of WBC cells?

7. Explain a) Passive diffusion b) facilitated diffusion

8. Explain the terms a) Angina pectoris b) Atherosclerosis

9. Write the functions of thymus gland?

10. Explain gliding joint with examples?

PART – B (2 X 10 = 20 Marks)

11. Define cardiac cycle? Explain in detail the phases of cardiac cycle?

12. Draw a neat labelled diagram of ear? Explain the physiology of hearing?

13. Define tissues and explain in detail about types of epithelial tissues?

PART – C (7 X 5 = 35 Marks)

14. Describe the structure of Eye with a neat labelled diagram?

15. Add a note on physiology of muscle contraction?

16. Write the composition and functions of blood?

17. Classify different types of muscular tissues and write their functions?

18. Write the differences between sympathetic and parasympathetic nervous system?

19. Explain the structure and functions of following bones
    a) Sternum b) Atlas

20. Define cell signalling and explain intracellular signalling pathway?

21. Draw a neat labelled diagram of skin and write its functions?
22. Describe the structure of synovial jontandadd a note on types of synovial joint?

FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Backlog) Examination, March 2022 Subject: Pharmaceutical Inorganic Chemistry

Time: 3 Hours   **Max.Marks:75**

Note: Answer all Questions from Part -A, Any two Questions from Part-B. and Any seven Questions from Part-C

PART – A (2x10 = 20 Marks)

1. Write the principle involved in limit test for Iron.

2. Define official substance and official preparation.

3. Define buffers and give examples of buffers in pharmaceutical systems.

4. Write the composition and applications of ORS.

5. What are desensitizing agents and give examples.

6. Mention official preparations of Iodine with their composition and applications.

7. Define emetics and expectorants and give two examples of each.

8. Write the preparation uses of ferrous gluconate.

9. What are antacids? Write the ideal properties.

10. Define radiopharmaceuticals and write the properties of β- radiations.

PART – B (2x10= 20 Marks)

11. Explain principle and procedure involved in limit test for Arsenic with a neat labelled diagram.

12 Define antimicrobials. Write the preparation, assay and uses of
a) Hydrogen peroxide   b) Ammonium Chloride   c) Chlorinated lime

13. a) What are anticaries agents? Explain the role of fluorides in preventing dental caries.

    b) Write the preparation, assay and uses of Calcium gluconate.

PART – C (5 x 7 = 35Marks)

14. Explain the principle and procedure involved in modified limit test for chlorides.

15. Give the method of preparation, assay and uses of Copper sulphate and Ferrous sulphate.

16. Discuss the detail about sources of impurities.

17. What are antidotes? Write the preparation, assay and uses of Sodium thiosulphate.

18. Write a note on cathartics.

19. Explain any two methods to measure radioactivity.

20. Write the preparation and uses of Magnesium sulphate, Bentonite and Zinc sulphate.

21. Discuss labelling, handling and storage of radiopharmaceuticals.

22. Discuss in detail about physiological acid base balance.

FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Backlog) Examination, March 2022
Subject: Pharmaceutics

Time: 3 Hours   **Max.Marks:75**

**Note: Answer all Questions from Part -A, Any two Questions from Part-B.
and Any seven Questions from Part-C**

PART – A (**10 x 2** = 20 Marks)

1. Classify dosage forms.
2. Define inhalations.
3. If adult dose of Paracetamol is 500mg. What is the dose for a child of five years old?
4. Define eutectic mixtures with an example.
5. Differentiate syrups and elixirs with examples.
6. Write stokes law equation.
7. Give an example for therapeutic incompatibility and how to overcome it.
8. Give any two advantages and disadvantages of suppositories.
9. Describe any one factor influencing dermal penetration of drugs.
10. Write the formula for simple ointment.

PART – B (2 x 10 = 20 Marks)

11. Define suspensions. Write a note on preparation of suspensions.

12. Write a note on factors affecting posology.

13. Describe methods to overcome physical and chemical incompatibility with examples.

PART – C (**7** x **5** = 35 Marks)

14. Write a brief note on history of pharmacy.

15. Write a note on errors in prescription.

16. Discuss about methods to adjust isotonicity.

17. Write a note on dusting powders. Give two official preparations.

18. Prepare 500ml of 70% v/v alcohol from 95% v/v alcohol and 20% v/v alcohol.

19. Differentiate lotions and liniments.

20. Explain different methods of preparation of emulsions.

21. Explain displacement value calculation with example.

22. Describe the different methods for preparation of ointments.

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FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Suppl.) Examination, December 2021
Subject: Pharmaceutics

Time: 2 Hours   **Max.Marks:75**

Note: Answer Any Seven Questions from Part -A, Any One Questions from Part-B. and Any Five Questions from Part-C

PART – A (7 X 3 = 21 Marks)

1. Classify dosage forms.

2. Define inhalations.

3. If adult dose of Paracetamol is 500mg. What is the dose for a child of five years old?

4. Define eutectic mixtures with an example.

5. Differentiate syrups and elixirs with examples.

6. Write stokes law equation.

7. Give an example for therapeutic incompatibility and how to overcome it.

8. Give any two advantages and disadvantages of suppositories.

9. Describe any one factor influencing dermal penetration of drugs.

10. Write the formula for simple ointment.

PART – B (1X 14= 14 Marks)

11. Define suspensions. Write a note on preparation of suspensions.

12. Write a note on factors affecting posology.

13. Describe methods to overcome physical and chemical incompatibility with examples.

PART – C (5 X 8 = 40Marks)

14. Write a brief note on history of pharmacy.

15. Write a note on errors in prescription.

16. Discuss about methods to adjust isotonicity.

17. Write a note on dusting powders. Give two official preparations.

18. Prepare 500ml of 70% v/v alcohol from 95% v/v alcohol and 20% v/v alcohol.

19. Differentiate lotions and liniments.

20. Explain different methods of preparation of emulsions.

21. Explain displacement value calculation with example.

22. Describe the different methods for preparation of ointments.

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FACULTY OF PHARMACY
B. Pharmacy I Semester (PCI) (Supply) Examination, December 2021

Subject: Human Anatomy and Physiology - I

Time: 2 Hours   **Max. Marks: 75**
PART - A
Note: Answer any seven questions.   **(7 x 3 = 21 Marks)**

1   What are the four basic types of human tissues?
2   Add a note on skeletal muscle.
3   Define (a) Stroke volume (b) Cardiac output.
4   Explain the terms (a) Myocardial infarction (b) Hypertension.
5   Mention the composition of lymph.
6   Write the functions of sternum.
7   Explain neuromuscular junction.
8   Explain the structure location and functions of ciliated columnar epithelium.
9   Write the structure and functions of endoplasmic reticulum.
10 Write the composition of blood.

PART - A
Note: Answer any one questions.   **(1 x 14 = 14 Marks)**

11 Define cardiac cycle. Explain in detail the phases of cardiac cycle.
12 Describe the anatomy of eye with a neat labelled diagram. Add a note on visual pathway.
13 Define clot. Explain various pathways in the process of blood clotting.

PART - C
Note: Answer any five questions.   **(5 x 8 = 40 Marks)**

14 Describe the structure of synovial joints.
15 Explain how an action potential occurs in cardiac contractile fibres.
16 Describe the gustatory pathway to the brain.
17 Describe the major responses of the body to stimulation by the sympathetic nervous system.
18 Explain in detail the structure and life cycle of RBC cells.
19 Explain anatomy of ear with a neat labelled diagram.
20 Describe the three mechanisms that contribute to hemostasis.
21 Outline the steps involved in the sliding filament mechanism of muscle contraction.
22 Describe the functions of the lymphatic system.

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FACULTY OF PHARMACY
B. Pharmacy I Semester (PCI) (Suppl.) Examination, December 2021

Subject: Remedial Biology

Time: 1 ½ Hours   **Max. Marks: 35**

Note: Answer any one questions from Part-A. and any five questions from part-B.

PART - A (1 x 10 = 10 Marks)

1. Describe the structure of human excretory system and urine formation.
2. Describe the mechanism of Photosynthesis.

PART - B (5 x 5 = 25 Marks)

3. Describe the anatomical structure of dicot stem.
4. Describe the mechanism of breathing.
5. How are fats digested and absorbed?
6. Discuss the generation and conduction of nerve impulse.
7. Write about the plant growth regulators?
8. Explain the somatic cell division in plants?
9. Write about the functions of hormones secreted by pituitary gland.

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FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Suppl.) Examination, December 2021

Subject: Remedial Mathematics

Time: 1 ½ Hours   **Max. Marks: 35**

Note: Answer one questions from part – A and any five questions from part -

B PART – A (1 X 10 = 10 Marks)

1. Solve $2x - y + 3Z = 9, x + y + z = 6$ and $x + y + z = 2$ using Cramer's Rule

2. Resolve into partial fractions $\dfrac{2x + 6}{(2x + 3)(x - 1)}$.

PART – B (5 X 5 = 25 Marks)

3. If $x = 1 + \log_a bc, y = 1 + \log_b ca, z = 1 + \log_c$ prove that xyz = xy + yz + ex

4. Find the slopes of straight lines cutting of intercepts a, b on the coordinate axes such that a + B = 5, ab = 6.

5. Find the derivative of $\dfrac{e^{\sin x}}{\cos x}$

6. Evaluate $\int \sin (3 - 4x) \, dx$.

7. Find the Laplace transform of $7t^3 - 2 \cos t$.

8. If $A = \begin{vmatrix} 2 & 3 \\ -1 & 2 \end{vmatrix}$ show that $A_2 - 4A + 7I = 0$.

9. Evaluate $\underset{x \to 3}{It} \dfrac{x_2 - 9}{x - 3}$.

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FACULTY OF PHARMACY
B. Pharmacy I Semester (PCI) (Suppl.) Examination, December 2021 Subject:

Communication Skills

Time: 1½ Hours   **Max. Marks: 35**

Note: Answer any one questions from Part-A. and any five questions from part-B.

PART - A (1 x 10 = 10 Marks)

1. What is the purpose of an interview? What are the do's and don'ts of an interview?
2. Discuss in detail the various barriers of communication and its impact.

PART - B (5 x 5 = 25 Marks)

3. Write about dealing with fears and planning your Presentation?
4. Write about the Communication process.
5. How are the Visual perception and Language affecting our communication perspective?
6. How to become an Active listener?
7. What is the role of Body Language in Communication?
8. Draft a job application letter for the post of marketing executive in a reputed pharmaceutical company.
9. What are the do's and don'ts of group Discussion?

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FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Suppl.) Examination, December 2021 Subject: Pharmaceutical Inorganic Chemistry

Time: 2 Hours   **Max.Marks:75**

Note: Answer Any <u>Seven</u> Questions from Part -A, Any <u>One</u> Questions from Part-B. and Any <u>Five</u> Questions from Part-C

PART – A (7 X 3 = 21 Marks)

1. Write the principle involved in limit test for Lead.

2. Define impurities and mention any four sources of impurities.

3. Define buffer equation and and buffer capacity.

4. Define electrolyte replacement therapy and give examples.

5. What are dentifrices? Give the composition of Zinc – Eugenol cement.

6. Define acidifiers and write examples.

7. Write the uses of Sodium ortho phosphate and potassium permanganate.

8. Define antidotes and mention the antidotes used in cyanide poisoning.

9. What is radioactivity and explain units of radioactivity.

10. Define astringents and give examples.

PART – B (1X 14 = 14 Marks)

11. Explain principle and procedure involved in limit test for Iron and Chlorides.

12 Define isotonic solution. Explain in detail the methods of adjusting isotonicity.

13. a) Classify antimicrobial agents with examples.

    b) Write the preparation, properties, assay and uses of Hydrogen peroxide.

PART – C (5 X 8 = 40Marks)

14. Write briefly about history of pharmacopeia.

15. What are electrolyte replenishers? Write the preparation, assay and uses of a Sodium Chloride.

16. Discuss in detail about desensitizing agents.

17. What are antacids? Write the preparation, properties and uses of Sodium bicarbonate, Aluminium hydroxide gel.

18. Write in detail about the mechanism of antimicrobial agents.

19. Explain physiological role of Sodium and Calcium.

20. Write the preparation, properties and uses of Potassium iodide, Sodium nitrite and Potash alum.

21. Define haematinics and write the preparation, assay and uses of Ferrous sulphate.

22. Give the various applications of radioactive substances.

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FACULTY OF PHARMACY
B. Pharmacy (PCI) I Semester (Suppl.) Examination, December 2021 Subject:

Pharmaceutical Analysis

Time: 2 Hours   **Max. Marks: 75**

Note: Answer any <u>seven</u> questions from Part-A. Any <u>One</u> question from Part-B and any <u>five</u> questions from Part-C.

PART - A (7 x 3 = 21 Marks)

1. Enlist the source of errors that occur during Pharmaceutical Analysis.
2. What are secondary standards? Write the Preparation of any two secondary standard solution.
3. Write about the source of impurities in medicinal agents.
4. Give the examples for compounds estimated by Acidimetry
5. Differentiate molarity and Normality
6. Write the uses of Volhards methods
7. What are metal indicators and give examples?
8. Define Co-Precipitation
9. Enlist the solvents used in nonaqueos titration
10. Differentiate iodometry and Iodimetry

PART - B (1 x 14 =14 Marks)
11. Discuss the principle and applications of ceremetry and dichrometry
12. Write the Principle, methods and applications of Diazotization titrations
13. Discuss the theory of complexometric titrations and write about estimation of Magnesium sulphate.

PART - C (5 x 8 = 40 Marks)
14. Write the theories of Acid Base indicators
15. Define limit test and explain the limit test for chlorides and sulphates
16. Explain the steps involved in the gravimetric analysis
17. What is Reference electrode? Write the construction and working of any one reference electrode
18. What is polarography? Write the construction and working of dropping mercury Electrode.
19. Explain the principle and applications of precipitation titrations with example
20. Write the preparation and standardization of 1 M KMnO4 and 1N NaOH
21. Write the principle involved in the potentiometric titration of Strong acid vs Strong base
22. Write a note on redox indicators with examples.

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FACULTY OF PHARMACY

B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, July 2021

Subject: Human anatomy and Physiology-I

Time: 2 Hours   Max.Marks:75

Note: Answer Any Seven Questions from Part -A, Any One Questions from Part-B. and Any Five Questions from Part-C

PART – A (7 X 3 = 21 Marks)

1. Define ganglion and write its function?
2. Explain the terms a) Active transport b) Passive transport?
3. Describe the structure and functions of Cardiac muscle?
4. Explain the terms a) Myocardial infarction b) Hypertension?
5. What is neuromuscular junction? And its role
6. Define a) Stroke volume   b) Cardiac output?
7. Explain hinge joint with example?
8. Explain different types of cartilage tissues?
9. Write the functions of ribosomes?
10. Write the functions of thymus gland?

PART – B (1X 14= 14 Marks)

11. Describe the structure of eye and explain the physiology of vision?
12. Define blood pressure and explain its regulation mechanism?
13. a) Describe the organization of skeletal muscles?

    b) Explain the physiology of muscle contraction?

PART – C (5 X 8 = 40Marks)

14. Describe the structure of ear with a neat labelled diagram?
15. Explain the structure and functions of following bones

    a) Scapula   b) Femur
16. List out cranial nerves and write their functions?
17. Describe the structure of synovial joint and add a note on types of synovial joint?
18. Explain the events of cardiac cycle?
19. Describe the structure and functions of nervous tissue?
20. Write a note on lymphatic circulation?
21. Explain the physiology of olfaction?
22. Describe the structure and functions of platelets?

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FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, August 2021

Subject: Communication Skills

Time: – Hours   Max. Marks: 35

Note: Answer Any One Question from Part - A and Any Five Questions from Part - B.

PART – A (1x10 = 10 marks)

1   Explain various elements of Communication.

2   Write a paragraph of 250 words on " Online Education system in India "

PART- B (5 x 5 = 25 marks)

3   What is the importance of Communication skills?

4   How to plan a Presentation?

5   What is the impact of visual and language perspective in Communication?

6   How to become an active listener?

7   Write about the Barriers of Communication.

8   What are the Do's and Don'ts of Group discussion?

9   Write about the purpose of an Interview.

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FACULTY OF PHARMACY

B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, August 2021 Subject :
Remedial Biology

Time: 1$^{1/2}$ Hours   **Max. Marks: 35**

Note: Answer one questions from Part -A and any five questions from Part-B

PART A (1X10 = 10 Marks)

Answer any **one** of the following questions
1. a) What are the functions of hormones secreted by anterior lobe of pituitary gland.
    b) Write a short note on blood groups.

2. Write briefly about root modifications with suitable diagrams.

PART- B (5 X5 = 25 Marks)

3. Describe the anatomy of Dicot stem.

4. Describe the structure of Nephron and write about urine formation.

5. Write about the mitotic cell division in plants.

6. Describe the nitrogen cycle and biologic nitrogen fixation

7. Explain the role of digestive enzymes.

8. Explain the generation and conduction of nerve impulse.

9. Explain the phases of plant growth. Add a note on plant growth regulators.

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FACULTY OF PHARMACY

B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, August 2021 Subject :
Remedial Mathematics

Time: $1^{1/2}$ Hours   **Max. Marks: 35**

Note: Answer one questions from Part -A and any five questions from Part-B
PART- A (1X10 = 10 Marks)

Answer any **one** of the following questions
1. Solve the equations 3x+4y+5z = 18, 2x-y+8z=13 and 5x - 2y + 7z = 20 by matrix inversion method

2. Resolve into partial fractions $\dfrac{1}{(1-2x)(1+3x)}$

PART- B (5 X5 = 25 Marks)

3. Show that $\begin{vmatrix} 1 & a & a^2 \\ 1 & b & b^2 \\ 1 & c & c^2 \end{vmatrix}$ = (a-b) (b-c) (c-a)

4. Prove that $\dfrac{1}{x} - \dfrac{1}{y} = \dfrac{1}{3}$ if $(2.3)^x = (0.23)^y = 1000$

5. Differentiate $\sqrt{Sin\ x}$ with respect to x

6. Find the laplace transform of $t^3.e^{2t}$

7. Show that the line through (2, -5) and (-2, 5) is perpendicular to the line through (6,3) and (1,1).

   Evaluate $\displaystyle\int \dfrac{3x+7}{3}\ dx$

8. $x^2 + 14x - 5$

9. If $A = \begin{bmatrix} -2 & 1 & 0 \\ 3 & 4 & -5 \end{bmatrix}$ and $B = \begin{bmatrix} 1 & 2 \\ 4 & 3 \\ -1 & 5 \end{bmatrix}$ then find A+B'

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FACULTY OF PHARMACY

B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, July 2021

Subject : Pharmaceutics

Time: 2 Hours   Max.Marks:75

Note: Answer Any Seven Questions from Part - A, Any One Questions from Part-B. and Any Five Questions from Part-C

PART – A (7 X 3 = 21 Marks)

1 Briefly explain the importance of Isotonicity.

2 What are organoleptic additives

3 Explain the term. Proof spirit and write the formulae for conversion of percentages solution to proof spirit as per IP.

4 Explain the preparations of any one effervescent powder.

5 Differentiate between lotions and liniments.

6 Differentiate between flocculates and deflocculated suspensions.

7 Explain advantages and disadvantages of suppositories.

8 Define physical incompatibility: How do you dispense a preparation with two immiscible liquids.

9 Define pastes. Write the preparation of lassar's paste.

10 Define and explain the importance of displacement value

PART – B (1 X 14 = 14 Marks)

11 Explain the methods of preparation of emulsion. Add a note on stability of emulsions.

12 Explain the methods of preparation of suppositories.

13 Explain about various ointment bases..

PART – C (5 X 8 = 40 Marks)

14 Define prescription. Explain various parts of prescription.

15 What are throat paints. Explain the preparation of Mandl's paints.

16 What are the salient features of Indian pharmacopoeia

17 Define posology. Enlist various formula to calculate paediatric doses. Adult dose of a drug is 500mg. Calculate the dose for 5 years child.

18 Briefly explain various solubility enhancement techniques

19 Explain the preparation of simple syrup as per IP.

20 Explain the tests for identification of type of emulsions

21 Explain therapeutic incompatibility

22 Explain the preparation of vanishing cream.

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FACULTY OF PHARMACY

B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, July 2021

Subject : Pharmaceutical Analysis

Time: 2 Hours   Max.Marks:75

**Note: Answer Any Seven Questions from Part -A, Any One Question from Part-B.
and Any Five Questions from Part-C**

PART – A (7 X 3 = 21 Marks)

1. Define accuracy and precision

2. Write different types of errors

3. Define primary standard and secondary standards with examples?

4. What is Pharmacopoeia? Mention different pharmacopeias

5. Give examples for the compounds estimated by complexometry

6. Differentiate end point and equivalence point

7. Differentiate oxidizing agent and reducing agent with examples?

8. Differentiate conductometry and potentiometry

9. Define Digestion and Nucleation in gravimetric analysis?

10. Write the applications of polarography.

PART – B (1 X 14 = 14 Marks)

11. Write the theories of acid-base indicators.

12. Explain gravimetric analysis technique detail

13. Write about different types of conductometric titrations

PART – C (5 X 8 = 40 Marks)

14. Discuss the applications of Non-Aqueous titrations?

15. Define limit test. Explain the limit test for heavy metals (Arsenic or Lead).

16. What is conductance? Write about conductivity cell with a neat labeled diagram.

17. Write a short note on types of Complexometric titrations

18. Write the Principle and applications of diazotization titrations?

19. Write the principle involved in potentiometic titrations and give advantages over indicator method?

20. Write the preparation and standardization of 0.5N NaOH and 0.1N HCl

21. Write the principle and applications of Iodometry

22. Write about electrodes used in polarography

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FACULTY OF PHARMACY
B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, August 2021

Subject: Pharmaceutical Inorganic Chemistry

Time: 2 Hours   Max.Marks:75

**Note: Answer Any Seven Questions from Part - A, Any One Questions from Part-B.
And Any Five Questions from Part-C**

PART – A (7 X 3 = 21 Marks)

1. Define the limit test and write the principle involved in limit test for Chlorides.

2. Define Official substance and Official preparation.

3. Define Antacids. Enlist it's ideal properties.

4. Write about Oral Rehydration Salts.

5. Define Buffers. Write the Bufferequation.

6. List out the methods to adjust isotonicity of solution.

7. Define Dentrifices. Give two examples.

8. Define expectorants and emetics with two examples each.

9. Define Radio isotopes. What is Radio activity.

10. Write the composition of Ringer's injection.

PART – B (1 X 14 = 14 Marks)

11. Define impurity. Explain in detail about how impurities will enter into the finished pharmaceutical substance.

12. a) What are antimicrobials. Classify them.
    b) Write the method of preparation, assay and uses of any one antimicrobial agent.

13. Give a note on Dental Products.

PART – C (5 X 8 = 40 Marks)

14. Write the method of preparation, assay and uses of $CuSO_4$.

15. Write in detail about Mechanism of Action of antimicrobials.

16. Explain the principle, procedure involved in limit test for Iron.

17. Write a note on role of fluorides in the treatment of dental caries. Write a note on NaF.

18. Define Haematinics. Explain the preparation, assay and uses of Ferrousgluconate.

19. Write in detail about Electrolyte combination therapy.

20. Write the preparation and assay of NaCl

21. Write the preparation, assay of a) NH_4Cl b) $NaHCO_3$

22. Write a note on clinical applications of Radiopharmaceuticals.

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