Code No: E-12205/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 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 Haemopoiesis.
2. Describe Axial skeleton and list out the bones of skull.
3. List the different types of taste buds and write their functions.
4. Mention the composition of lymph.
5. Explain the terms (a) stroke volume (b) cardiac output.
6. What is the role of Renin in regulation of blood pressure?
7. Explain the terms (a) passive diffusion (b) active transport?
8. Explain the structure location and functions of transitional epithelium.
9. Write the functions of nucleus.
10. Write any two actions of parasympathetic system.

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. Explain the structure of skin with a neat labelled diagram.
13. Define tissue and explain in detail about Epithelial tissues.

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) Sternum (ii) Lumbar vertebra.
15. Explain the physiology of olfaction?
16. Define ECG and discuss the interpretation of ECG?
17. Explain in detail erythropoiesis?
18. Explain anatomy of eye with a neat labelled diagram?
19. Describe the types of muscle tissue with neat labelled diagram?
20. Describe the structure of spleen with neat labelled diagram?
21. What are synovial joints and describe the types of movements of synovial joint.
22. List cranial nerves and write their functions.

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Code No. E-12208/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 2023

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 (10 x 2 = 20 Marks)

1. What is an impurity? Mention the methods to purify inorganic substances.
2. Define acidifiers with examples.
3. Explain modified limit test for chlorides.
4. List out the methods of adjusting isotonicity.
5. Write about oral rehydration salts.
6. Define the terms (i) expectorant (ii) emetic.
7. What are antacids? Give some examples.
8. Write a note on desensitizing agents.
9. Define an astringent. Give some examples.
10. What are dentifrices give some examples.

PART – B (2 x 10 = 20 Marks)

11. Discuss about sources of impurities in pharmaceuticals.
12. (a) What are electrolyte replenishers? Write the method of preparation, assay and uses of sodium chloride.
    (b) What are anticaries agents? Explain the role of fluorides in preventing dental caries.
13. (a) What are antacids? Give the method of preparation, assay and uses of Sodium bicarbonate.
    (b) Write the method of preparation, assay and uses of chlorinated lime.

PART – C (7 x 5 = 35 Marks)

14. Explain the principle and procedure involved in the limit test for arsenic.
15. Write the composition of ringer's solution. Explain its importance.
16. Write the method of preparation, assay and uses of ammonium chloride.
17. Define and classify catharatics. Add a note on magnesium sulphate.
18. What are antidotes? Explain about any one antidote used for cyanide poisoning.
19. Discuss the Labeling, handling and storage of radiopharmaceuticals.
20. Give the method of preparation, assay and uses of copper sulphate.
21. Explain Physiological acid -base balance.
22. Discuss Limit test for sulphates.

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Code No: E-12207/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 2023
Subject: Pharmaceutics - I

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

PART - A

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

1. Define Suspensions.
2. Give example of a monograph from I.P.
3. Find the strength of 95% v/v alcohol in terms of proof spirit.
4. Find the proportion of dextrose needed to form a solution iso-osmotic with blood plasma.
5. Differentiate gargles and mouthwashes.
6. Classify suspensions.
7. Identify the type of incompatibility in the given prescription.
   Rx
   Castor oil-15ml,
   Water upto 60ml.
   Make an emulsion.
8. Write the formula for displacement value and explain the terms.
9. Mention various types of bases used in Ointments.
10. Explain how skin irritation test is done.

PART - B

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

11. Define Prescription. Add a note on Parts of prescription and types of prescription with examples.
12. Classify liquid dosage forms and add a note on solubility enhancement techniques.
13. Explain methods for preparation and evaluation of ointments.

PART - C

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

14. Write a note on history of pharmacy.
15. Explain in brief about United States Pharmacopoeia.
16. Write a note on dusting powders.
17. Find the concentration of NaCl required to make 1% solution of Boric acid iso-osmotic with blood plasma [Freezing point of 1% w/v solution of NaCl is -0.576°C and Freezing point of 1% w/v solution of Boric acid is -0.288°C].
18. Describe the types of emulsifying agents with examples.
19. Describe preparation of syrups and elixirs with examples.
20. Describe physical incompatibility and methods to overcome them.
21. Write a note on preparation of suppositories.
22. Write the mechanism of dermal penetration of drugs.

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Code No: E-12206/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 2023

Subject: Pharmaceutical Analysis

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

PART - A

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

1. Write about the common source of errors occur in Quantitative Analysis.
2. Write about pharmacopoeia and its significance in pharmaceutical Analysis.
3. Mention the source of impurities in medicinal agents.
4. How do you prepare 2M potassium Permanganate?
5. Discuss the principle involved in the estimation of Sodium Benzoate.
6. Write the uses of Volhards methods.
7. Write about the solvents used in non-aqueous titrations.
8. Write about the metal indicators.
9. Explain the reaction involved in diazotization titration
10. Write a note on standardization of EDTA.

PART - B

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

11. Discuss the principle and applications of complexometric titrations.
12. Write the Principle and applications iodometry and cerimetry.
13. Discuss the principle and steps involved in gravimetric analysis.

PART - C

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

14. What is equivalence point? Discuss the theories of Acid Base indicators with suitable examples.
15. Define limit test and explain the limit test for chlorides and iron.
16. Explain the principle involved in precipitation titration and discuss about Mohr's Method.
17. Write in detail about the redox indicators with examples.
18. Write the construction and working of Conductivity cell and discuss the advantages of conductometry.
19. What is polarography? Discuss the principle and applications of polarography.
20. Explain the principle and applications of non-aqueous titrations with example.
21. Write in detail about buffers and discuss the theory of buffer action.
22. Write the principle involved in the potentiometric titration of Strong acid vs Weak base.

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Code No: E-12210/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 2023
Subject: Remedial Mathematics

Time: 1 ½ Hours **Max. Marks: 35**

PART - A

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

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

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

PART - B

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

3 If $P=\begin{bmatrix} 0 & 1 \\ 2 & 3 \end{bmatrix}$ $Q=\begin{bmatrix} -1 & 2 \\ 4 & 3 \end{bmatrix}$ $R=\begin{bmatrix} 2 & -1 \\ 6 & 5 \end{bmatrix}$ show that $P(Q+R)=PQ+PR$.

4 Evaluate $\int \frac{3x+7}{3x^2+14x-5}dx$.

5 Prove that the set of points (4,1), (5,-2), (6,-5) lie on a straight line and find the line equation.

6 Find the $\frac{dy}{dx}$ if $x=\log t+\sin t, y=e^t+\cos t$.

7 Show that $\lim_{x\to 2} \frac{x-2}{x^3-8}=\frac{1}{12}$.

8 Prove that $2\log\frac{3}{5}+3\log\frac{5}{7}+2\log\frac{7}{3}=\log\frac{5}{7}$.

9 Prove that $\frac{1}{\log_a abc}+\frac{1}{\log_b abc}+\frac{1}{\log_c abc}=1$.

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Code No. E-12211/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 2023
Subject: Remedial Biology

Time: 1 ½ Hours **Max. Marks: 35**

PART - A

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

1. Write in brief about leaf modification with neat labelled diagram.
2. Describe the structure of human excretory system and urine formation with neat labelled diagram.

PART - A

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

3. Write a note on mitotic cell division in plants.
4. What are the functions of hormones secreted by anterior lobe of pituitary gland?
5. Describe the nitrogen cycle and biological nitrogen fixation.
6. Write a note on five kingdom classification.
7. Describe the structure of human brain.
8. Write a brief note on Photosynthesis and factors affecting photosynthesis?
9. Draw the internal structure of heart and label the parts.

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Code No: E-12209/PCI

FACULTY OF PHARMACY

B. Pharmacy I Semester (PCI) (Main & Backlog) Examination, April / May 2023

Subject: Communication Skills

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

Note: Answer any One Question 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. Describe the various elements of Communication.

PART – B (5 x 5 = 25 Marks)

3. Write about the Barriers of Communication.
4. Discuss the role of face to face Communication.
5. Write about the Communication styles.
6. What are the Do's and Don'ts of Group discussion?
7. What is the role of Body Language in Communication?
8. What are the techniques of delivering a presentation?
9. Write a Job application letter for the post of an analyst in a reputed Pharmaceutical Company.

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Code No: E-12005/PCI

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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Code No: E-12001/PCI

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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Code No. E-12004/PCI

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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Code No: E-12002/PCI

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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Code No: E-12003/PCI

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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Code No: E-12006/PCI

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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Code No: E-12007/PCI

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

PART - B

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

3. **If** $\frac{\log_2 a}{4}=\frac{\log_2 b}{6}=\frac{\log_2 c}{3p}$ and $a^3b^2c=1$ 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 $\int\frac{2x+1}{x^2+x+1}dx$

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

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

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

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Code No. D-8224/PCI

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.

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Code No: D-8225/PCI

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 complexometric 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

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Code No: D-8226/PCI

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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Code No: D-8227/PCI

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 labeled 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 Labeling, 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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Code No. D-8229/PCI

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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Code No: D-8230/PCI

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

PART - B (5 x 5 = 25 Marks)

3. Evaluate $\int \frac{1}{\sqrt{x}} Cos\sqrt{x}$ 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 $2\log\frac{3}{5}+3\log\frac{5}{7}+2\log\frac{7}{3}=\log\frac{5}{7}$
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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Code No: D-8228/PCI

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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Code No: D-8151/PCI

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 joint and add a note on types of synovial joint?

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Code No: D-8153/A/PCI

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.

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Code No. D-8152/PCI

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 Pharmacopoela? Discuss about the importance of Pharmacopoelal 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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Code No: D-8153/PCI

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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Code No. D-8154/PCI

FACULTY OF PHARMACY

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

Subject: Communication Skills

Time: 1 ½ Hours **Max. Marks: 35**

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

PART - A (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 about the basic listening skills and ways to become an active listener.

PART - B (5 x 5 = 25 Marks)

3. What are the ways to overcome nervousness before an interview?
4. Write about the Communication process.
5. How are interpersonal and language barriers affecting our communication?
6. Discuss the role of face to face communication?
7. Write about the Communication styles?
8. Draft a job application letter for the post of production manager in a reputed pharmaceutical company.
9. Explain the techniques of delivering a presentation.

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Code No: D-8155/PCI

FACULTY OF PHARMACY

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

Subject: Remedial Biology

Time: 1 1/2 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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Code No: D-8156/PCI

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

PART – B (5 x 5 = 25 Marks)

3. If $\frac{\log_2 a}{4} = \frac{\log_2 b}{6} = \frac{\log_2 c}{3p}$ 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 $\int \frac{2x+1}{x^2+x+1} dx$.
7. Find the Laplace transform of $3' + 6e^{2t}$.
8. If $A = \begin{bmatrix} 2 & 3 \\ -1 & 2 \end{bmatrix}$ show that $A^2 - 4A + 7I = 0$.
9. Evaluate $\lim_{x \to 5} \frac{x^2 - 25}{x - 5}$.

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Code No: D8077/PCI

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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Code No. D8075/PCI

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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Code No. D8085/PCI

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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Code No: D8081/PCI

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 $\frac{2x+6}{(2x+3)(x-1)}$.

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 $\frac{e^{\sin x}}{\cos x}$
6. Evaluate $\int \sin(3-4x)dx$.
7. Find the Laplace transform of $7t^3 - 2\cos t$.
8. If $A = \begin{bmatrix} 2 & 3 \\ -1 & 2 \end{bmatrix}$ show that $A^2 - 4A + 7I = 0$.
9. Evaluate $\underset{x \to 3}{It} \frac{x^2 - 9}{x - 3}$.

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Code No. D8079/PCI

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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Code No: D8078/PCI

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 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. 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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Code No. D8076/PCI

FACULTY OF PHARMACY

B. Pharmacy (PCI) I Semester (Suppl.) Examination, December 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. 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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Code No: 12051/PCI

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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Code No: 12054/PCI

FACULTY OF PHARMACY

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

Subject: Communication Skills

Time: $1\frac{1}{2}$ 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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Code No: 12055/PCI

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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Code No: 12056/PCI

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 $\frac{1}{(1-2x)(1+3x)}$

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 $\frac{1}{x} - \frac{1}{y} = \frac{1}{3}$ 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).
8. Evaluate $\int \frac{3x+7}{3x^2+14x-5} dx$
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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Code No: 12053/A/PCI

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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Code No: 12052/PCI

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 Questions 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 lodometry
22. Write about electrodes used in polarography

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Code No: 12053/PCI

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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Code No. 6266/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester. (PCI) (Backlog) Examination, December 2020

Subject: Pharmaceutical Analysis

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

PART – A

Note: Answer any Seven questions. ***(7 x3=21 Marks)***

1. Write any two methods of expressing Concentration along with formulae.
2. Mention different techniques of analysis.
3. Write the significance of limit tests.
4. Define end point and equivalence point.
5. Mention the solvents used in non-aqueous titrations.
6. What are metal ion indicators? Give examples.
7. What is the difference between co-precipitation & post precipitation?
8. Mention the applications of Iodometry.
9. Write the applications of Conductometry.
10. What is the difference between primary standard and secondary standard?

PART – B

Note: Answer One question. ***(1 x14=14 Marks)***

11. Explain the titration of (i) Weak acid Vs Strong base (ii) Strong acid Vs Weak base with neutralization curve.
12. Classify complexometric titrations. What are masking and demasking agents?
13. Explain different types of conductometric titrations.

PART - C

Note: Answer any Five questions. ***(5x8=40 Marks)***

14. Write a note on methods of minimizing errors.
15. How do you prepare and standardize 1N HCI.
16. Explain the limit test for iron.
17. Write about solvents used in non-aqueous titrations.
18. Explain any one method used in precipitation titrations.
19. Write a note on diazotization titration.
20. Explain the principle of redox titrations in brief. Write its application.
21. Write the construction, working and applications of standard hydrogen electrode.
22. Write the construction, working and applications of dropping mercury electrode.

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Code No. 6265/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester. (PCI) (Backlog) Examination, November 2020

Subject: Human Anatomy and Physiology - I

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

PART – A

Note: Answer any Seven questions. ***(7 x3=21 Marks)***

1. Define tissue and classify the tissues.
2. Write about different types of body cavities.
3. Define the following terms:
   (i) Anterior (ii) Inferior (iii) Proximal (iv) Lateral.
4. Explain symport and antiport with examples.
5. Define the following terms-myocardial infarction and angina pectorosis.
6. List the different types of taste buds and write their functions.
7. Define tissue and classify the tissues.
8. What is the role of Renin in regulation of blood pressure?
9. Explain different types of cartilage tissues.
10. Write about the structure and functions of ribosome with diagram.

PART – B

Note: Answer One question. ***(1 x14=14 Marks)***

11. Define tissue and explain in detail about epithelial tissues.
12. Define clot. Explain various pathways in the process of blood clotting. Write a note on role of Vitamin K in blood clotting.
13. Define and explain the events of cardiac cycle.

PART - C

Note: Answer any Five questions. ***(5x8=40 Marks)***

14. Explain in detail about the structure and functions of plasma membrane with a neat labeled diagram.
15. What is a Joint? Explain different types of synovial joints with examples.
16. Explain the structure and functions of lymph nodes with a neat labeled diagram.
17. Define ECG and explain in detail about ECG.
18. Write in detail about the structure and functions of skin.
19. Explain the structure and functions of following bones with neat Labeled diagram.
    (i) Ax is (ii) Scapula.
20. Explain the structure and functions of sympathetic nervous system.
21. Explain the composition and functions of blood.
22. Describe the structure of eye with a neat labeled diagram.

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Code No. 6269/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Backlog) Examination, December 2020

Subject: Communication Skills

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

PART – A

Note: Answer any One Question ***(1 X 10 = 10)***

1. What is the purpose of an interview? What are the do's and don'ts of an interview?
2. Write about the basic listening skills and ways to become an active listener.

PART – B

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

3. Write about dealing with fears and planning your Presentation?
4. Write about the Communication process.
5. How are the interpersonal and language barriers affecting our communication?
6. Discuss the role of face to face Communication.
7. Write about the Communication styles.
8. What are the Do's and Don'ts of Group discussion?
9. Draft a job application letter for the post of marketing executive in a reputed pharmaceutical company.

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Code No. 6267/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Sem. (PCI) (Backlog) Examination, December 2020

Subject: Pharmaceutics - I

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

PART – A

Note: Answer any Seven questions. ***(7 x3=21 Marks)***

1. What is meant by Extra Pharmacopoeia?
2. Define creams and pasters.
3. If adult dose of Paracetamol is 500 mg. What is the dose for an infant of one month old?
4. Find the strength of 20% v/v alcohol in terms of proof spirit.
5. Write any two official preparations for dusting powders.
6. Write the formula for calamine lotion with purpose of each excipient.
7. Describe dilution test for identification of type of emulsion.
8. Give an example for insolubility in a formula and how to overcome it.
9. List different types of Suppositories.

PART - C

Note: Answer any Five questions. ***(5x8=40 Marks)***

10. Write a brief note on Pharmacy career in industry.
11. Write a note on Indian Pharmacopoeia.
12. Discuss about formulation of liquid dosage forms with examples.
13. Write a note on eutectic mixtures and Efflorescent powders.
14. Prepare 600 ml of 60% v/v alcohol from 95% v/v alcohol and 40% v/v alcohol.
15. Write a note on stability problems in suspensions.
16. Explain different methods of preparation of emulsions.
17. Explain therapeutic incompatibility with examples.
18. Explain evaluation of semi solid dosage forms.

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Code No. 6268/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Backlog) Examination, December 2020

Subject: Pharmaceutical Inorganic Chemistry

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

PART – A

Note: Answer any Seven questions. ***(7 x3=21 Marks)***

1. What is an impurity? Mention the methods to purify inorganic substances.
2. Differentiate between limit test and assay.
3. List out the methods of adjusting isotonicity.
4. What is buffer? Give two examples for buffer systems.
5. What are the different types of acidifiers? Write their uses.
6. Define a catharatic. Give some examples.
7. Define and classify expectorant.
8. What are dentifrices? Give some examples.
9. Write the applications of radiopharmaceuticals.
10. What are antidotes? Mention the antidotes used cyanide poisoning.

PART – B

Note: Answer One question. ***(1 x14=14 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 sodium chloride.
    (b) What are anticaries agents? Explain the role of fluorides in preventing dental caries.
13. (a) What are antacids? Give the method of preparation, assay and uses of Sodium bicarbonate.
    (b) Write the method of preparation, assay and uses of hydrogen peroxide.

PART - C

Note: Answer any Five questions. ***(5x8=40 Marks)***

14. Explain the principle and procedure involved in the limit test for sulphates.
15. Write the method of preparation, assay and uses of ammonium chloride.

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16. What are antimicrobial agents? Add a note on potassium permanganate.
17. Discuss the methods of adjusting isotonicity.
18. What are desensitizing agents? Give examples.
19. Write any one method to measure radioactivity.
20. Write the preparation, assay and uses of calcium gluconate.
21. Discuss about various sources of impurities.
22. Define astringent? Write the method of preparation and uses of zinc sulphate.

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Code No. 6039/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, December 2019

Subject: Pharmaceutical Analysis - I

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

Note: Answer all Questions from Part – A, and Two questions from Part – B, and any Seven questions from Part – C.

PART – A (10 X 2 = 20)

1. Define the terms Pharmaceutical analysis and Primary standard.
2. Write different types of errors.
3. Define indicator and give examples.
4. What is Pharmacopoeia? Mention different Pharmacopeias.
5. Give examples for the compounds estimated by non-aqeuous titration.
6. Write applications of complexometric titrations.
7. Write the steps involved in a gravimetric analysis.
8. Differentiate Iodimetry and Iodometry.
9. What is an electrochemical cell?
10. Mention different electrodes used in potentiometry.

PART – B (2 x 10 = 20)

11. Explain the sources of impurities in medicinal agents. Write the limit test for (i) Sulphates (ii) Chlorides.
12. Explain the classification of acid base titrations and the theory involved in titration of strong acid against strong base using suitable example.
13. Write the concept of oxidation and reduction. Describe the titration with potassium iodate.

PART - C (7 x 5 = 35)

14. Write a note on methods of expressing concentration.
15. Write properties of primary standard and secondary standard substances and give the examples.
16. Define limit test. Explain the limit test for heavy metals (Arsenic or Lead).
17. Explain different types of solvents with examples used in non-aqueous titrations.
18. Write a note on co-precipitation used in gravimetry.
19. Write the principle and theory involved in cerimetry.
20. What is conductance? Write about conductivity cell with a neat labeled diagram.
21. Explain the methods to determine endpoint in potentiometric titrations.
22. Write about electrodes used in polarography.

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Code No. 6038/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, December 2019

Subject: Human Anatomy and Physiology - I

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

Note: Answer all Questions from Part – A, and Two questions from Part – B, and any Seven questions from Part – C.

PART – A (10 X 2 = 20)

1. Define osmosis and diffusion with examples.
2. Write about the functions of skin.
3. Classify the white Blood Cells.
4. Define tissue and classify the tissues.
5. List the different types of taste buds and write their functions.
6. What is ECG? Draw and label ECG.
7. Mention the composition of lymph.
8. Name the valves of heart and write their location in heart.
9. What is the role of Renin in regulation of blood pressure?
10. What is anemia? How it can be prevented.

PART – B (2 x 10 = 20)

11. Write about the composition of blood and add a note on hemopoeisis.
12. Explain structure of heart with a neat labeled diagram.
13. What are the components of neuromuscular junction and explain the process of muscle contraction in detail?

PART - C (7 x 5 = 35)

14. Explain the structure and function of following bones with neat labeled diagram.
    (i) Femur (ii) Thoracic vertebra.
15. Write about the structure and function of spleen with neat labeled diagram.
16. Define ECG and correlate ECG with the events of cardiac cycle.
17. Define tissue and explain in detail about nervous tissues with diagram.
18. Explain the structure and functions of a cell.
19. What are cranial nerves and explain them?
20. Define anemia and explain different types of anemias.
21. What are synovial joints and describe the types of movements of synovial joint?
22. Describe the physiology of audition.

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Code No. 6040/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2020

Subject: Pharmaceutics

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

Note: Answer all Questions from Part – A, and Two questions from Part – B, and any Seven questions from Part – C.

PART – A (10 X 2 = 20)

1. List parts of a prescription.
2. Classify monophasic liquid dosage forms.
3. Find the strength of 95% v/v alcohol in terms of Proof spirit.
4. Describe any one method of preparation for effervescent granules.
5. Classify suspensions.
6. Write the ratio's for primary Emulsion for different oils.
7. Identify the type of incompatibility in the given prescription.
   R_x
   Menthol - 5gm,
   Camphor – 5gm,
   Thymol – 5gm.
   Make an insufflation powder.
8. Define synergism. Give one example.
9. Mention various types of bases used in pastes.
10. What are gelling agents, give two examples.

PART – B (2 x 10 = 20)

11. Write a note on chemical incompatibility with examples.
12. Describe different methods for preparation of suspensions.
13. Explain methods for preparation and evaluation of ointments.

PART - C (7 x 5 = 35)

14. Write a note on history of pharmacy.
15. Explain in brief about any six factors affecting posology.
16. Write a note on compound powders.
17. Find the concentration of NaCl required to make 1% solution of Boric acid iso-osmotic with blood plasma [Freezing point of 1% w/v solution of Nacl is -0.576^0C and Freezing point of 1% w/v solution of Boric acid is -0.288^0C].
18. Differentiate lotions and liniments.
19. Write a brief note on Emulsifying agents.
20. Describe physical incompatibility and methods to overcome them.
21. Write a note on evaluation of suppositories.
22. Write the mechanism of dermal penetration of drugs.

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Code No. 6044/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2020

Subject: Remedial Mathematics

Time: $1\frac{1}{2}$ **Hours** **Max. Marks: 35**

Note: Answer any ONE question from Part–A, any FIVE questions from Part- B.

PART – A (1 X 10 = 10)

1. Show that the Matrix $A = \begin{bmatrix} 1 & 2 & 2 \\ 2 & 1 & 2 \\ 2 & 2 & 1 \end{bmatrix}$ satisfies the equation $A^2-4A-5I=0$.
2. Find Partial fractions of $\frac{2x-1}{(x-1)(x+2)(x-3)}$.

PART – B (5 x 5 = 25)

3. Prove that $7 \log \frac{16}{15} + 5 \log \frac{25}{24} + 3 \log \frac{81}{80} = \log 2$.
4. Show that $\begin{vmatrix} 1 & 1 & 1 \\ x & y & z \\ x^2 & y^2 & z^2 \end{vmatrix} = (x-y)(y-z)(z-x)$
5. Differentiate with respect to x.
   $5e^x-3 \operatorname{Sin} x + 10(3^x)$
6. Find the equation of the straight line which makes equal intercept on the axes and passes through the point (3, -5).
7. Evaluate $\int \frac{dx}{4x^2 - 49}$.
8. Find the Laplace transform of $6e^{2t} + se^{-3t} + 2$.
9. Solve $\frac{dy}{dx} = \frac{\operatorname{Sin} X}{\operatorname{Cos} Y}$.

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Code No. 6043/PCI

FACULTY OF PHARMACY
B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2020

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 and labeled diagrams where ever necessary.

PART – A (1 X 10 = 10)

1. (a) Describe the structure of human heart with the help of a neat labeled diagram.
   (b) Describe the mechanism of breathing and its regulation.

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

PART – B (5 x 5 = 25)

3. Describe the anatomy of monocot stem.

4. Discuss the role of digestive glands.

5. Describe the structure of a nephron and write about urine formation.

6. Write about the secretions of various endocrine glands.

7. Describe the structure of human brain.

8. Describe the nitrogen cycle and biological nitrogen fixation.

9. Describe the mitotic cell division in plants.

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Code No. 6042/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2020

Subject: Communication Skills

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

Note: Answer any One Question from Part – A, and any Five questions from Part – B.

PART – A (1 X 10 = 10)

1. Describe the Barriers of Communication.
2. Write a paragraph of 250 words on 'Clean and green surroundings'.

PART – B (5 x 50 = 25)

3. Write about the techniques of delivering your Presentation.
4. Write about the importance of Communications.
5. How are the feelings and language affecting our communication perspective?
6. Discuss the role of Verbal Communication.
7. How to become an Active Listener?
8. What are the Do's and Don'ts of an interview?
9. Write about the importance of communication skills in group discussion.

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Code No. 6041/PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2020

Subject: Pharmaceutical Inorganic Chemistry

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

Note: Answer all Questions from Part – A, and Two questions from Part – B, and any Seven questions from Part – C.

PART – A (10 X 2 = 20)

1. Define test for purity.
2. Define acidifiers with examples.
3. Explain modified limit test for chlorides.
4. List out the methods of adjusting isotonicity.
5. Write about oral rehydration salts.
6. Define the terms i) expectorant ii) emetic.
7. What are antacids? Give some examples.
8. Write the uses of hydrogen peroxide.
9. Write the physiological role of calcium.
10. What is dental fluorosis?

PART – B (2 x 10 = 20)

11. Discuss about sources of impurities in pharmaceuticals.
12. (a) What are electrolyte replenishers? Write the method of preparation, assay and uses of sodium 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 (7 x 5 = 35)

14. What are heamatinics? Mention the method of preparation, assay and uses of ferrous sulphate.
15. Explain the principle and procedure involved in the limit test for arsenic.
16. Write the composition of ringer's solution. Explain its importance.
17. Define and classify catharatics. Add a note on magnesium sulphate.
18. What are antidotes? Explain about any one antidote used for cyanide poisoning.
19. Discuss the Labeling, handling and storage of radiopharmaceuticals.
20. Discuss about physiological acid-base balance.
21. What are dentifrices? List out the official compounds.
22. Give the method of preparation, assay and uses of copper sulphate.

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Code No. 13224 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, August 2019

Subject : Pharmaceutics – I

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

Note: Answer all questions Part – A, any two questions from Part – B and any seven question from Part – C.

PART – A (10x2=20 Marks)

1 List the formula's for cloes calculation based on Age.
2 Define Elixirs and Syrups.
3 Find the strength of 95% v/v alcohol in terms of Proof spirit.
4 List the excipients used in formulation of liquid dosage form.
5 Write a formula of Mouthwashes.
6 Write any one test used for identification of type of Emulsion.
7 Identify the type of incompatibility in the given prescription.
Rx
Menthol – 5 gm,
Camphor – 5 gm,
Thymol – 5 gm,
Make an insufflations powder
8 Write any two advantages and disadvantages of Suppositories.
9 Classify Semisolid dosage forms.
10 What is a Pharmacopoeia, with the names of any three pharmacopoeias.

PART – B (2x10=20 Marks)

11 Define Prescription. Explain parts of Prescription with examples and handling of a prescription.
12 Write a note on different methods of preparation of emulsions and stability problems in emulsions.
13 Define Ointments. Write a note on different types of ointment bases with examples for each.

PART – C (7x5=35 Marks)

14 Write a note on Indian Pharmacopoeia.
15 Explain in brief about errors in prescription.
16 Explain various solubility enhancement techniques.
17 Differentiated Flocculated and deflocculated Suspensions.
18 Write a brief note on Emulsifying agents.
19 Find the concentration of NaCl required to make 1% solution of Boric acid iso-osmotic with blood plasma [Freezing point of 1 % w/v solution of NaCl is is -0.576^{o}C and Freezing point of 1% w/v solution of Boric acid is -0.288^{o}C].
20 Describe Therapeutics incompatibility and methods to overcome them.
21 Write the mechanism of dermal penetration of drugs.
22 What are Suppositories? What are the different bases used in preparation of Suppositories?

Code No. 13226 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, July 2019

Subject : Communication Skills

Time :1½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

1 Describe the Barriers of Communication.
2 Discuss the various elements of Communication.

PART – B (5x5=25 Marks)

3 How do you structure your Presentation?

4 Write about the Communication process.

5 How are the Past Experiences and Prejudices affecting our communication perspective?

6 Discuss the role of Non Verbal Communication.

7 How to become an Active Listener?

8 What are the Do's and Don't's of an interview?

9 When and when not to use Written Communication?

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Code No. 13225 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, July 2019

Subject : Pharmaceutical Inorganic Chemistry

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

Note: Answer all questions Part – A, any two questions from Part – B and any five question from Part – C.

PART – A (10x2=20 Marks)

1 Define limit test.
2 Write the differences between antiseptic and disinfectant.
3 Write the reaction for the limit test for Lead.
4 Define expectorant.
5 Write the composition of Barium sulphate reagent.
6 Define Anticaries agents and give examples with formula.
7 Write the significance of Ringers injection.
8 Define Radioactivity and explain the unit of radioactivity.
9 Write the category and importance of Ferrous gluconate.
10 Define buffer and isotonicity.

PART – B (2x10=20 Marks)

11 Write the history of Indian Pharmacopoeia.
12 Derive buffer equation. Define and explain buffer capacity. Explain the uses of pharmaceutical buffers.
13 What is an impurity? Explain how the impurities get incorporated in official pharmaceutical substances?

PART – C (7x5=35 Marks)

14 What are the antacids? Write the ideal properties of an antacid. Give the preparation and uses of aluminum hydroxide gel.
15 Write the preparation, properties and uses of potassium permanganate.
16 What are electrolytes? Write about ORS.
17 Define antidote. Classify antidotes. Write a note on cyanide poisoning.
18 Give the preparation, properties, assay and uses of ferrous sulphate.
19 List out the various classes of cathartic agents with examples.
20 Define Radioactivity. Write any two methods for measuring radioactivity.
21 Explain the principle and procedure involved in the limit test for chloride.
22 What are Antimicrobial? What is their mechanism of action? Give any five examples.

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Code No. 13223 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, July 2019

Subject : Pharmaceutical Analysis – I

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

Note: Answer all questions from Part – A, any two questions from Part – B and any seven question from Part – C.

PART – A (10x2=20 Marks)

1 What is neutralization titration? Give one example.
2 Define molarity and normality.
3 What is meant by primary standard substance?
4 Mention the types of errors.
5 Define accuracy and precision.
6 Differentiate end point and equivalence point.
7 What is precipitation and post precipitation used in gravimetry?
8 Mention the applications of Iodimetry.
9 Name different reference and indicator electrodes used in potentiometry.
10 What is polarography?

PART – B (2x10=20 Marks)

11 Explain different sources and impurities in medicinal agents with suitable examples.
12 Explain the principle and theory involved in complexometric titration with an example.
13 Write about different types of conductometric titrations.

PART – C (7x5=35 Marks)

14 Write about different methods of expressing concentration of solutions.
15 How do you prepare and standardize 1N sodium hydroxide solution?
16 Explain the limit test for chlorides.
17 Write about solvents used in non-aqueous titrations.
18 Write in detail any one method of precipitation titrations.
19 Explain the principle and mention the applications of diazotization titration.
20 Write a note on cerimetry.
21 Explain about the end point in a potentiometric titration.
22 Explain the construction and working of dropping mercury electrode.

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Code No. 13222 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, July 2019

Subject : Human Anatomy and Physiology – I

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

Note: Answer all questions Part – A, any two questions from Part – B and any five question from Part – C.

PART – A (10x2=20 Marks)

1 Write the structure and functions of endoplasmic reticulum.
2 Explain the role of calcium in muscle contraction.
3 Define appendicular skeleton and list out the bones of upper limbs.
4 Write the composition of blood.
5 Discuss briefly about Reticuloendotherlial tissue.
6 Draw a neat labeled diagram of taste bud.
7 What is ECG and explain different waves of ECG?
8 Define : (a) Congestive heart failure (b) Xerophthalmia
9 Define ; (a) Passive transport (b) Active transport
10 What is Cardiac output?

PART – B (2x10=20 Marks)

11 Classify peripheral nervous system and explain structure and function of sympathetic system.
12 (a) Describe organization of skeletal muscle.
(b) Explain Physiology of muscle contraction.
13 Define blood pressure and explain its regulation mechanisms.

PART – C (7x5=35 Marks)

14 What is cell division and explain Mitosis with neat diagrams?
15 Classify muscular tissue and differentiate between various types of muscle tissues.
16 Define and classify joints and explain different types of Synovial joints with examples.
17 Draw a neat labeled diagram of skin.
18 Define coagulation and explain coagulation mechanism.
19 Explain anatomy of eye with neat labeled diagram.
20 (a) List out cranial nerves in order.
(b) Write the functions of lymphatic system.
21 Describe the valves of heart and write their functioning during pumping of blood.
22 Explain about pulmonary circulation of blood.

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Code No. 13227 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, August 2019

Subject : Remedial Biology

Time :1½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

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

2 (a) Write briefly about stem modification with suitable diagrams.
(b) Write about Binomial Nomenclature.

PART – B (5x5=25 Marks)

3 Briefly explain the process of exchange of gases during respiration.

4 Classify types of animal tissues and mention their functions.

5 Explain the structure of neuron with labeled diagram.

6 Write any six differences between prokaryotic and eukaryotic cell.

7 What are digestive enzymes? What is the role of digestive enzymes in the process of Digestion?

8 What are the stages involved in cell division?

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

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Code No. 13228 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, August 2019

Subject : Remedial Mathematics

Time : 1½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

1 Solve the following system of equations, using matrix method.
$x + 2y + z = 7, \quad x + 3z = 11, \quad 2x - 3y = 1$

2 Find the partial fractions of $\frac{x}{(x+1)(x-1)(x+2)}$.

PART – B (5x5=25 Marks)

3 Without expanding show that $\begin{vmatrix} 41 & 1 & 5 \\ 79 & 7 & 9 \\ 29 & 5 & 3 \end{vmatrix} = 0$.

4 Prove that $7\log\frac{16}{15} + 5\log\frac{25}{24} + 3\log\frac{81}{80} = \log 2$.

5 If $A = \begin{bmatrix} 1 & 3 \\ 2 & 4 \end{bmatrix}$ show that $B = \begin{bmatrix} 1 & 4 \\ 2 & 5 \end{bmatrix}$ verify that $(AB)^T = B^T . A^T$.

6 Differentiate $e^x . \sin x$ with respect to x.

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

8 Evaluate $\int \sqrt{2x + 3x}\, dx$.

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

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Code No. 13093 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, February 2019

Subject : Pharmaceutics – I

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

Note: Answer all questions from Part – A, any two questions from Part – B and any seven question from Part – C.

PART – A (10x2=20 Marks)

1 Define Emulsions and Suspensions.
2 If adult dose of Phenobarbital is 15mg. What is the dose for a child of 8yrs old.
3 How many grams of dextrose are required to prepare 4000ml of a 5% solution?
4 List the excepients used in a effervescent powder.
5 Differentiate gargles and mouthwashes.
6 Write any two advantages and disadvantages of suspensions.
7 Give an example for Physical incompatibility and how do you overcome it.
8 Give examples of bases used in Suppositories.
9 Explain any two factors influencing dermal penetration of drugs.
10 What is Pharmacopoeia?

PART – B (2x10=20 Marks)

Answer any Two Questions

11 Define Posology. Explain different factors influencing selection of a dose.
12 Classify Suspensions. Discuss the formulation of suspensions and stability problems of suspensions.
13 Explain chemical and therapeutic incompatibility with suitable examples and give the methods for overcoming these incompatibilities.

PART – C (7x5=35 Marks)

Answer any Seven Questions

14 Write a brief note on evolution of pharmacy.
15 Write a note on pharmacy as a career.
16 Convert 60º O.P. and 35º U.P. to % V/V alcohol and 40% v/v and 75% v/v alcohol to proof spirit.
17 Classify powders. Write a note on Effervescent powders.
18 Differentiate liniments and lotions.
19 Write a note on stability problems in emulsions.
20 Explain different methods of preparation of ointments.
21 Identify the type of incompatibility in the following prescription and add a note on how to overcome the incompatibility.

R_x

Ferric chloride solution-2ml,
Sodium salicylate-4g,
Water upto 90ml.

22 Write short notes on evaluation of suppositories.

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Code No. 13091 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2019

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 five question from Part – C.

PART – A (10x2=20 Marks)

1 Define Homeostatis and Hemopoeisis.
2 Define Signal transduction in cell communication.
3 Define neuromuscular junction and write its significance.
4 Describe Axial skeleton and list out the bones of skull.
5 Draw a neat labeled diagram of lymph node.
6 What is the role of Rh factor in blood groups?
7 Define ganglion and write its function.
8 Name the valves of heart and write their location in heart.
9 What is the role of Renin in regulation of blood pressure?
10 Define (a) Hypertension and (b) Glaucoma

PART – B (2x10=20 Marks)

11 Classify peripheral nervous system and explain structure and function of parasympathetic system.
12 Define and classify tissues and explain different types of connective tissues with neat labeled diagrams.
13 Define transportation in cell and explain active and passive transport across the plasma membrane.

PART – C (7x5=35 Marks)

14 Define cell signaling and explain intracellular signaling processes.
15 Explain structure and functions of following bones:
(i) Scapula (b) Humerus
16 Define and classify joints and explain different types of synovial joints with examples.
17 Write the composition and functions of blood.
18 Write a note on lymphatic circulation.
19 Write the structure and functions of taste bud.
20 Write the differences between sympathetic and parasympathetic nervous system.
21 Explain the physiology of olfaction.
22 Describe the elements of conduction system of heart.

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Code No. 13096/PCI

FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Main & Backlog) Examination, February 2019

Subject: Remedial Biology

Time: 1 ½ Hours **Max. Marks: 35**

Note: Answer all questions from Part – A and any Five questions from Part – B.

Part – A (1 x10 = 10 Marks)
Answer any ONE of the following questions

1. a) Describe briefly various components of blood with neat labeled diagrams. 5M
   b) Write a short note on blood groups and Rhesus factor. 5M

OR

2. Write in detail about the Morphology and Anatomy of dicot root of flowering plant.

Part – B (5 x 5 = 25)
Answer any FIVE of the following questions. All questions carry equal marks.

3. Write a note on five kingdom classification.
4. Write about structure of Human excretory system.
5. Write a brief note on plant growth regulators.
6. Write in detail about photosynthesis. What are the factors effecting photosynthesis?
7. Classify types of animal tissues and anterior pituitary gland and mention their functions?
8. Write any six differences between prokaryotic cell and eukaryotic cell.

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Code No. 13097/PCI

FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Main & Backlog) Examination, February 2019

Subject: Remedial Mathematics

Time: 1½ Hours **Max.Marks: 35**

Note: Answer one question from Part – A. Any Five questions from Part – B.

PART – A (1x10 = 10 Marks)

1 Solve the following system of equations, using matrix inversion method

x + y + z = 6, x – y + z = 2, 2x + y – z = 1.

2 Resolve $\frac{2x+3}{x^2-2x-3}$ into partial fractions.

PART – B (5x5 = 25 Marks)

3 Prove that $\log\frac{28}{51} - \log\frac{70}{69} + \log\frac{85}{46} = 0$.

4 Without expanding show that $\begin{vmatrix} 1 & a & b+c \\ 1 & b & a+c \\ 1 & c & b+a \end{vmatrix} = 0$.

5 If $A = \begin{bmatrix} 2 & 3 \\ -1 & 2 \end{bmatrix}$ show that $A^2 - 4A + 71 = 0$.

6 Differentiate x.sin x with respect to x.

7 Find the equation of line passing through (2, -3) and (-5, 1).

8 Evaluate $\int \frac{dx}{4+9x^2}$.

9 Find the Laplace transform of 3^t.

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Code No. 13092 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2019

Subject : Pharmaceutical Analysis – 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 (10x2=20 Marks)

1 Mention different techniques of Pharmaceutical analysis.
2 Define accuracy and precision.
3 Define endpoint and indicator.
4 Mention the methods to minimize errors.
5 Classify acid -base titrations.
6 What are neutralization curves?
7 What is meant by assay?
8 What is complexometry?
9 Give different types of redox titrations.
10 Define conductance and equivalent conductance.

PART- B (2x10=20 Marks)

11 Write the theories of acid -base indicators.
12 Explain gravimetric analysis technique in detail.
13 What is potentiomery? Explain construction and working of electrochemical cell? Mention the applications of potentiometry? (2+6+2=10)

PART- C (7 x 5 = 35 Marks)

14 Write a note on primary and secondary standard substances.
15 Write briefly about different types of errors.
16 Explain the limit test for iron.
17 Write about solvents used in non-aqueous titrations.
18 Write in detail any one method of precipitation titrations.
19 Write the principle and procedure involved in estimation of barium sulphate.
20 Explain a titration with potassium iodate.
21 Write a note on conductometry.
22 Write about electrodes used in polarography.

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Code No. 13095/PCI

FACULTY OF PHARMACY

B. Pharmacy I – Semester (PCI) (Main & Backlog) Examination, February 2019

Subject: Communication Skills

Time: 1 ½ Hours **Max. Marks: 35**

Note: Answer all questions from Part – A and any Five questions from Part – B

Part – A (1 x10 = 10 Marks)
Answer any ONE of the following questions

1. Describe the various elements of Communication.
2. Write a paragraph of 250 words on “Impact of Social Media on Youth”

Part – B (5 x 5 = 25 Marks)
Answer any FIVE of the following questions. All questions carry equal marks.

3. Discuss the importance of Communication.
4. Write about the Barriers of Communication.
5. How are the Visual Perception and Language affecting our communication perspective?
6. What is the role of Body Language in Communication?
7. How to become an Active Listener?
8. What are the Do’s and Don’ts of Group discussion?
9. Write a Hob application letter for the post of an analyst in a reputed Pharmaceutical Company.

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Code No. 13094 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main & Backlog) Examination, January 2019

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 question from Part – C.

PART – A (10x2=20 Marks)

1 Explain the principle and the reaction involved in the limit test for iron?
2 Define replacement therapy?
3 Differentiate between absorption and adsorption?
4 Write the physiological role of calcium?
5 Write the reaction involved in the limit test for sulphate?
6 What is dental fluorosis?
7 What is Radioactivity?
8 Define test for purity?
9 Define antacid and give the ideal properties of antacids?
10 Write the composition of Ringers injection?

PART – B (2x10=20 Marks)

11 a) Classify Antimicrobial agents with examples?
b) Write the method of preparation, properties and uses of any one antimicrobial agent.
12 Explain the principle and procedure involved in the limit test for Arsenic with a labelled diagram. Add a note on description of Apparatus?
13 Define isotonic solution? Explain the methods of adjusting tonicity?

PART – C (7x5=35 Marks)

14 Define an emetic? Write the method of preparation, assay and uses of copper sulphate?
15 Write a note on Heavy metallic poisoning and treatment?
16 Explain the classification of cathartics?
17 Write the role of fluoride in the treatment of dental caries and write a note on sodium fluoride?
18 Write the mechanism of antimicrobial agents?
19 Define haematinic and explain preparation, properties and uses of Ferrous gluconate?
20 Write a note on electrolyte combination therapy?
21 Give the preparation, properties, assay and uses of sodium bicarbonate?
22 Give the various applications of radioactive substances?

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Code No. 1286 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Supplementary) Examination, August 2018

Subject : Communication Skills

Time : 1 ½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

Answer any ONE of the following.

1 Define interview? What are the objectives and types of interview along with the important factors responsible for an interview?

2 What do you mean by active listening skill? Explain common barriers of listening?

PART- B (5x5=25 Marks)

Answer any FIVE of the following.

3 Explain in detail about any two barriers of communication?

4 What do you mean by perspectives in communication? What are the different factors that affect the perspectives in communication?

5 Discuss the difference between verbal and non verbal communication?

6 Explain in detail about communication style matrix?

7 Write short notes on what should do's and don'ts in group discussion?

8 Discuss about various types of listening?

9 Explain in detail about various phases of an interview?

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Code No. 1285 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Supplementary) Examination, August 2018

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 (10x2=20 Marks)

Answer All Questions. All Questions carry equal marks.

1 What is an impurity? Mention the methods to purify inorganic substances.
2 Define: (i) Limit test (ii) Assay.
3 What are Arrhenius acids? Give examples.
4 What is a buffer? Give two examples for buffer systems.
5 What are the different types of acidifiers? Write their uses.
6 Define a catharatic. Give some examples.
7 Define and classify expectorants.
8 What are antidotes? Give the antidotes used in cyanide poisoning.
9 Write the uses of ferrous sulphate.
10 Write the applications of Radiopharmaceuticals.

PART – B (2x10=20 Marks)

Answer any TWO questions. All questions carry equal 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 sodium chloride.
(b) What are anticaries agents? Explain the role of fluorides in preventing dental caries.
13 (a) What are antacids? Give the method of preparation, assay and uses of Sodium bicarbonate.
(b) Write the method of preparation, assay and uses of hydrogen peroxide.

PART – C (7x5=35 Marks)

Answer any SEVEN questions. All questions carry equal marks.

14 Explain the principle and procedure involved in the limit test for iron.
15 Write the method of preparation, assay and uses of ammonium chloride.
16 What are antimicrobial agents? add a note on potassium permanganate.
17 Discuss the methods of adjusting isotonicity.
18 What are dentifrices? List out the official compounds.
19 Write any one method to measure radioactivity.
20 Write the preparation, assay and uses of calcium gluconate.
21 Discuss about various sources of impurities.
22 Give the method of preparation, assay and uses of copper sulphate.

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Code No. 1282 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI)(Suppl.) Examination, July 2018

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 (10x2=20 Marks)

Answer All Questions. All Questions carry equal marks.

1 Classify the blood components.

2 Define paracrine and trans-cellular transport.

3 Write about the functions of skin.

4 Define tissue and classify the tissues.

5 Explain symport and antiport with examples

6 Define the terms atherosclerosis and angina pectorosis.

7 List the different types of taste buds and write their functions.

8 Write about the functions of mitochondria with diagram.

9 Explain the terms: depolarization and hyperpolarization.

10 List out the mixed cranial nerves. Mention the functions of vagus nerve.

PART – B (2x10=20 Marks)

Answer Any Two Questions. All Questions carry equal marks.

11 Write about the process of muscle contraction in detail.

12 Define and explain the events of cardiac cycle.

13 Define tissue and explain in detail about Epithelial tissues.

PART – C (7x5=35 Marks)

Answer Any Seven Questions. All Questions carry equal marks.

14 How many bones are there in face and explain them briefly?

15 What are the different types of lymph trunks and ducts involved in draining of lymph?

16 Define ECG and discuss the interpretation of ECG.

17 Define tissue and explain in detail about muscular tissues.

18 Explain the physiology of olfaction.

19 Write about the structure and functions of parasympathetic nervous system.

20 Explain about the pulmonary circulation of blood.

21 Describe the structure of ear with a neat labeled diagram.

22 What are synovial joints and describe the types of movements of synovial joint?

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Code No. 1287 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Supplementary) Examination, August 2018

Subject : Remedial Biology

Time : 1 ½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

Answer any ONE of the following.

1 Describe the structure of human heart and the circulatory system.

2 Describe the mechanism of Photosynthesis.

PART – B (5x5=25 Marks)

Answer any FIVE of the following.

3 Describe the types of cymose Inflorescence.

4 Describe the mechanism of breathing.

5 How are proteins digested and absorbed?

6 Discuss the generation and conduction of nerve impulse.

7 How is urine formed?

8 What is biological nitrogen fixation?

9 Define tissue and describe the types of plant tissues?

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Code No. 1288 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Suppl.) Examination, August 2018

Subject : Remedial Mathematics

Time : 1 ½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

Answer any ONE of the following.

1 Expand the partial fractions of $\frac{1}{(x-1)(x-2)(x-3)}$

2 Solve the following equations x + 2y + z = 7; x+3z = 11; 2x - 3y = 1;

PART- B (5x5=25 Marks)

Answer any FIVE Questions.

3 Prove that $7\log\frac{16}{15}+5\log\frac{25}{24}+3\log\frac{81}{82}=\log^2$

Det of $\begin{pmatrix}1 & a^2 & a^2\\ 1 & b & b^2\\ 1 & c & c^2\end{pmatrix}=(a-b)(b-c)(c-a)$.

5 If y= $(\cos x)^{\sin x}$ then find $\frac{dy}{dx}$?

6 Evaluate $\int\frac{(3x+7)dx}{3x^2+14x-5}$.

7 Find the Laplace Transform of (sin3t.cos2t)

8 Evaluate $\int_0^{\pi/2}\frac{\sqrt{\sin x}}{\sqrt{\sin x}+\sqrt{\cos x}}dx$ =?

9 Find the equation of line passing through the points ∫(2, -2), (4, -8).

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Code No. 1283 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Supplementary) Examination, July 2018

Subject : Pharmaceutical Analysis – 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 (10x2=20 Marks)

Answer All Questions. All Questions carry equal marks.

1 What is Blank titration and Back titration?
2 Define Mole Fraction with an Example?
3 Define Equivalence point and Indicator?
4 Define secondary standard and give examples?
5 Define the Brownsted-Lowry theory with examples?
6 What is pharmacopoeia? Write the names of any three pharmacopeias.
7 Define Digestion and Nucleation in gravimetric analysis?
8 Differentiate oxidizing agent and reducing agent with examples?
9 Differentiate conductometry and potentiometry?
10 Define Residual current and Migration current?

PART- B (2x10=20 Marks)

Answer any TWO questions. All questions carry equal marks.

11 (i) Explain in detail about Limit test for Arsenic with Neat labeled Diagram (8)
(ii) Write ideal requirements of primary standard? (2)
12 Explain the steps involved in gravimetric analysis?
13 Explain the applications of conductometric titrations?

PART- C (7x5=35 Marks)

Answer any SEVEN questions. All questions carry equal marks.

14 Write a short note on Neutralization indicators?
15 Write a short note on Limit test for Iron?
16 Briefly explain about the Solvents used in Non-aqueous titration?
17 Discuss the applications of Non-Aqueous titrations?
18 Write a short note on types of Complexometric titrations
19 Write the Principle and applications of diazotisation titrations?
20 Write the Principle & applications of Cerimetry titrations?
21 Write the principle involved in potentiometric titrations and give advantages over indicator method?
22 Describe the significance of half wave potential and diffusion current in polarography?

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Code No. 1140 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, January 2018

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)

Answer All Questions. All Questions carry equal marks.

1 Write about the functions of plasma.

2 Define the following terms:
(i) Anterior (ii) Superior (iii) Proximal Lateral

3 Explain briefly about cardiac muscle.

4 Define joint and explain the structural classification of joints.

5 Define tissue and write the location and functions of simple squamous epithelium.

6 Define the terms fibrillation and myocardial infarction.

7 List the different types of taste buds and write their functions.

8 Write about the functions of ribosomes with diagram.

9 Explain different types of cartilage tissues.

10 Define osmosis and diffusion.

PART – B (2x10=20 Marks)

Answer Any Two Questions. All Questions carry equal marks.

11 Write about the process of hemostasis in detail and add a note on clotting factors.

12 Define blood pressure and explain how to regulate the blood pressure.

13 What are cranial nerves? Explain in detail about the cranial nerves.

PART – C (7x5=35 Marks)

Answer Any Seven Questions. All Questions carry equal marks.

14 Explain the components of neuromuscular junction.

15 Explain the various parts of the following bones with neat diagrams
(a) Humerus (b) Sacrum

16 Define anemia and explain different types of anemia.

17 Describe the structure and functions of thymus gland.

18 Explain the structure and functions of plasma membrane.

19 Write about the structure and functions of sympathetic nervous system.

20 What is ECG and correlate the ECG with cardiac cycle events?

21 Describe the structure of eye with a neat labeled diagram.

22 What are synovial joints and describe the different types of synovial joint?

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Code No. 1142 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, January 2018

Subject : Pharmaceutics – 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 (10x2=20 Marks)

Answer All Questions. All Questions carry equal marks.

1 Define paste? Mention various types of bases employed in the preparation of pastes?
2 What are eutectic mixture? Give two examples.
3 Define synergism and give one example?
4 Define and Classify suspensions?
5 What are effervescent powders? Give two examples.
6 Find the incompatibility present in the given formulae and write the correction method
Castor oil 15 ml
Water up to 60 ml make an emulsion
7 Convert 15.6° U/P into percentage strength of alcohol by volume?
8 What are the stability problems of emulsion?
9 What is the dose of a medicament for a child that weighing 28lb, if the average adult dose is 100mg?
10 What do you mean by inscription and subscription of a prescription?

PART – B (2x10=20 Marks)

Answer any TWO questions. All questions carry equal marks.

11 Define ointment. Give an account of various bases used in the preparation of ointment. Add a note on the method of preparation of ointment?
12 Classify monophasic liquid dosage forms? Discuss about the preparations which are used in syrups and elixirs?
13 What are incompatibilities? Describe in detail about physical incompatibilities and their remedies with suitable examples?

Part – C (7x5=35 Marks)

Answer any SEVEN questions. All questions carry equal marks.

14 Define isotonicity? What is the concentration of sodium chloride required to prepare 1.5% W/V Procaine HCl isoosmotic with blood plasma? (F.P of 1% Procaine HCl is -0.122°C and F. P of 1% sodium chloride is – 0.576°C)
15 Write a note on history of profession of pharmacy in India?
16 Differentiate
(a) Lotions and liniments
(b) Suspensions and emulsions
17 Write a note on alkaloidal chemical incompatibility with examples and their correction method.
18 Explain about the solubility enhancement techniques?
19 Define emulsions? Explain the various identification tests for emulsions?
20 Write a short note on thickening agents and wetting agents?
21 Write a short note on ear drops, nasal drops?
22 Write in detail about mandl's paint?

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Code No. 1141 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, January 2018

Subject : Pharmaceutical Analysis – 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 (10x2=20 Marks)

Answer All Questions. All Questions carry equal marks.

1 Define Pharmaceutical Analysis and write the Importance.
2 Define Molarity and Write the formula for Molarity?
3 (i) How to prepare 1000ml of 0.1N NaOH Solution?
(ii) How to prepare 1000ml of 0.1N $KMnO_4$Solution?
4 Mention any four acid-base indicators in acid base titrations?
5 What is precipitation titration and how to prepare 0.1M Silver Nitrate solution?
6 Define Complexing agent and Sequestering agent?
7 Differentiate Co-precipitation and Post Precipitation with Examples in Gravimetry titration?
8 Explain Oxidation-Reduction Reaction with one example?
9 Differentiate Conductance and Resistance?
10 What is the difference between Iodometry and Iodimetry?

PART- B (2x10=20 Marks)

Answer any TWO Questions. All questions carry equal marks.

11 (a) Write the Different types of Errors in pharmaceutical analysis? (5)
(b) Write the methods of minimising Errors in Analysis? (5)

12 (a) Write the Neutralisation curves for strong acid V/S strong base titrations. (5)
(b) Explain acidimetry in Non-Aqeous titration with an Example? (5)

13 (a) Explain Mohrs method in Precipitation Titration? (5)
(b) Write the Principle & Applications of Iodometry? (5)

PART- C (7x5=35 Marks)

Answer any SEVEN Questions. All questions carry equal marks.

14 Explain Briefly about Significant figures with Examples?
15 Explain the Limit test for Chlorides?
16 Write a short note on Common Ion Effect & Salt Hydrolysis?
17 Write the Principle & procedure involved in Standardisation of 0.1N $HClO_4$
18 Explain Masking agents and Demasking agents in Complexometric titrations?
19 Write a short note on p^M Indicators?
20 Write a Short note on Redox Indicators?
21 Explain Different End point methods in potentiometric titrations?
22 Write about the construction and working of an electrode.

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Code No. 1145 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, February 2018

Subject : Remedial Biology

Time : 1 ½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

Answer any ONE of the following.

1 Describe the structure of human alimentary canal and write a note on the function of digestive enzymes.

2 Describe the mechanism of Respiration in Plants.

PART – B (5x5=25 marks)

Answer any FIVE of the following.

3 Describe the anatomy of dicot stem.

4 How is blood coagulated?

5 Describe the structure of human excretory system.

6 Discuss the functions of hormones.

7 Describe the structure of human brain.

8 What are photosynthetic pigments and discuss the factors affecting photosynthesis?

9 Describe the structure and function of plant cell?

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Code No. 1146 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, February 2018

Subject : Remedial Mathematics

Time : 1 ½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

Answer any ONE of the following.

1 (a) If $(2.3)^x = (0.023)^y = 10000$ then find the value of $\frac{1}{x} - \frac{1}{y} = ?$

(b) Verify the following points are collinear (1,2), (3,4) (5,6) (7,8) ?

2 (a) Solve $\tan y.e^x\, dx - \sec^2 y\,(1+e^x)\, dy = 0$

(b) Solve the following simultaneous linear equations by using matrix Inversion method.

x+y+z=6; x-y+z=2; 2x-y+3z=9

PART- B (5x5=25 Marks)

Answer any FIVE Questions.

2 Show that $\lim_{x\to 0} \frac{\cos ax - \cos bx}{x^2} = \frac{b^2 - a^2}{2}$

4 If $A=\begin{pmatrix} -1 & -2 & -2 \\ 2 & 1 & -2 \\ 2 & -2 & 1 \end{pmatrix}$ then show that $adj(A)=3A^T$ and find A^{-1}?

5 If $ax^2+2hxy+by^2=0$ then find $\frac{d^2y}{dx^2}$?

6 Evaluate $\int 2x\cos^2 x\,dx$.

7 If $L[f(t)]=f(s)$ then show that $L[e^{at} f(t)] = f(s-a)$ and $L[e^{-at} f(t)] = f(s+a)$

8 If $x^{\log y} = \log x$ then show that $\frac{dy}{dx} = \frac{y\left[1-\log x.\log y\right]}{x(\log x)^2}$

9 Write the applications of Remedial Mathematics especially, Logarithmic matrices. Differentiation and Integration in Pharmacy.

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Code No. 1144 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, January / February 2018

Subject : Communication Skills

Time : 1 ½ Hours **Max. Marks: 35**

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

PART – A (1x10=10 Marks)

Answer any ONE of the following.

1 Explain in detail about barriers of communication?

2 What is an interview? What are the do's and don'ts during interview?

PART- B (5x5=25 Marks)

Answer any FIVE of the following.

3 What are the methods that improve the leadership qualities in group discussion?

4 How to overcome the nervousness before an interview?

5 What do you mean by listening and explain the listening skills in pharmacy practice?

6 What are the common factors that affect the writing skills?

7 Explain in detail about verbal communication?

8 What is communication? Write in detail about the importance of communication?

9 Discuss in detail about communication process?

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Code No. 1143 / PCI

FACULTY OF PHARMACY

B. Pharmacy I-Semester (PCI) (Main) Examination, January 2018

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 (10x2=20 Marks)

Answer All Questions. All Questions carry equal marks.

1 Define i) Limit test ii) Assay.
2 What is an impurity? Mention the methods to purify inorganic substances.
3 Define Bronsted-Lowry acid and base.
4 List out the methods of adjusting isotonicity.
5 Write about oral rehydration salts.
6 What are dentifrices give some examples.
7 Define the terms i) expectorant ii) emetic.
8 What are antacids? Give some examples.
9 Write the uses of hydrogen peroxide.
10 List out various iodine preparations.

PART – B (2x10=20 Marks)

Answer any TWO questions. All questions carry equal marks.

11 Discuss about sources of impurities in pharmaceuticals.
12 (a) What are electrolyte replenishers? Write the method of preparation, assay and uses of sodium chloride.
(b) What are anticaries agents? Explain the role of fluorides in preventing dental caries.
13 (a) Define and classify antimicrobial agents. Write their mechanism of action.
(b) Write the method of preparation, assay and uses of ammonium chloride.

PART – C (7x5=35 Marks)

Answer any SEVEN questions. All questions carry equal marks.

14 Explain the principle and procedure involved in the limit test for sulphates.
15 What are haematinics? Mention the method of preparation, assay and uses of ferrous sulphate.
16 Write the composition of Ringer's solution. Explain its importance.
17 Define and classify catharatics. Add a note on magnesium sulphate.
18 What are antidotes? Explain about any one antidote used for cyanide poisoning.
19 Discuss the Labeling, handling and storage of Radiopharmaceuticals.
20 Discuss about physiological acid-base balance.
21 Give the method of preparation, assay and uses of copper sulphate.
22 Define astringent? Write the method of preparation and uses of zinc sulphate.

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