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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FACULTY OF PHARMACY

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

Subject: Human anatomy and Physiology-I

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

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

PART – A (7 X 3 = 21 Marks)

1. Define ganglion and write its function?

2. Explain the terms a) Active transport b) Passive transport?

3. Describe the structure and functions of Cardiac muscle?

4. Explain the terms a) Myocardial infarction b) Hypertension?

5. What is neuromuscular junction? And its role

6. Define a) Stroke volume   b) Cardiac output?

7. Explain hinge joint with example?

8. Explain different types of cartilage tissues?

9. Write the functions of ribosomes?

10. Write the functions of thymus gland?

PART – B (1X 14= 14 Marks)

11. Describe the structure of eye and explain the physiology of vision?

12. Define blood pressure and explain its regulation mechanism?

13. a) Describe the organization of skeletal muscles?

    b) Explain the physiology of muscle contraction?

PART – C (5 X 8 = 40Marks)

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

15. Explain the structure and functions of following bones

    a) Scapula   b) Femur

16. List out cranial nerves and write their functions?

17. Describe the structure of synovial joint and add a note on types of synovial joint?

18. Explain the events of cardiac cycle?

19. Describe the structure and functions of nervous tissue?

20. Write a note on lymphatic circulation?

21. Explain the physiology of olfaction?

22. Describe the structure and functions of platelets?

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FACULTY OF PHARMACY

B.Pharmacy I-Semester (PCI) (Main & Backlog) Examination, 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 Iodometry
22. Write about electrodes used in polarography

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FACULTY OF PHARMACY

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

Subject : Pharmaceutics

Time: 2 Hours   Max.Marks:75

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

PART – A (7 X 3 = 21 Marks)

1 Briefly explain the importance of Isotonicity.

2 What are organoleptic additives

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

4 Explain the preparations of any one effervescent powder.

5 Differentiate between lotions and liniments.

6 Differentiate between flocculates and deflocculated suspensions.

7 Explain advantages and disadvantages of suppositories.

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

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

10 Define and explain the importance of displacement value

PART – B (1 X 14 = 14 Marks)

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

12 Explain the methods of preparation of suppositories.

13 Explain about various ointment bases..

PART – C (5 X 8 = 40 Marks)

14 Define prescription. Explain various parts of prescription.

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

16 What are the salient features of Indian pharmacopoeia

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

18 Briefly explain various solubility enhancement techniques

19 Explain the preparation of simple syrup as per IP.

20 Explain the tests for identification of type of emulsions

21 Explain therapeutic incompatibility

22 Explain the preparation of vanishing cream.

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FACULTY OF PHARMACY

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

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

Subject : Remedial Biology

Time: 1¹ᐟ² Hours   **Max. Marks: 35**

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

PART A (1X10 = 10 Marks)

Answer any **one** of the following questions

1. a) What are the functions of hormones secreted by anterior lobe of pituitary gland.
   b) Write a short note on blood groups.

2. Write briefly about root modifications with suitable diagrams.

PART- B (5 X5 = 25 Marks)

3. Describe the anatomy of Dicot stem.

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

5. Write about the mitotic cell division in plants.

6. Describe the nitrogen cycle and biologic nitrogen fixation

7. Explain the role of digestive enzymes.

8. Explain the generation and conduction of nerve impulse.

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

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FACULTY OF PHARMACY

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

Subject : Remedial Mathematics

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

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

PART- A (1X10 = 10 Marks)

Answer any **one** of the following questions

1. Solve the equations 3x+4y+5z = 18, 2x-y+8z=13 and 5x - 2y + 7z = 20 by matrix inversion method

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

PART- B (5 X5 = 25 Marks)

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

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

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

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

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

8. Evaluate $\displaystyle\int \dfrac{3x+7}{3x^2+14x-5}dx$

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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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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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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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 HCl.
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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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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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.

10. Describe fusion method for preparation of ointments.

PART – B

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

11. Define prescription. Describe the parts of prescription with examples.

12. Write a note on solubility enhancement techniques.

13. What are the factors influencing dermal penetration of drugs.

PART - C

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

14. Write a brief note on Pharmacy career in industry.

15. Write a note on Indian Pharmacopoeia.

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

17. Write a note on eutectic mixtures and Efflorescent powders.

18. Prepare 600 ml of 60% v/v alcohol from 95% v/v alcohol and 40% v/v alcohol.

19. Write a note on stability problems in suspensions.

20. Explain different methods of preparation of emulsions.

21. Explain therapeutic incompatibility with examples.

22. Explain evaluation of semi solid dosage forms.

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FACULTY OF PHARMACY

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

Subject: Remedial Biology

Time: 1¹ᐟ² Hours **Max. Marks: 35**

PART – A

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

1. Describe the structure of human circulatory system and write a note on the blood groups.

2. Describe the morphology and anatomy of dicot stem in plants.

PART – B

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

3. Describe the salient feature of five kingdoms of life.

4. Write the composition and functions of lymph.

5. Describe the structure of a neuron and write a note on conduction of nerve impulse.

6. Discuss the functions of hormones.

7. Write about the digestion and absorption of digested food.

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

9. Describe the structure and function of various types of plant tissues.

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FACULTY OF PHARMACY

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

Subject: Remedial Mathematics

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

PART – A

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

1. Solve the following questions using cramer's rule.
   5x-7y+z = 11, 6x-8y-z = 15, 3x+2y-6z = 7

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

PART – B

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

3. If A=$\begin{bmatrix} 4 & 2 \\ -1 & 1 \end{bmatrix}$ find (A-2I) (A-3I).

4. Differentiate $\dfrac{x}{\cos x}$.

5. Show that the line joining (2, -3) and (-5, 1) is parallel to the line joining (7, -1) and (0, 3).

6. Evaluate $\int \dfrac{e^{\tan^{-1} x}}{1+x^2}\, dx$.

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

8. Solve $\dfrac{dy}{d^x} = y \sin x$.

9. Find the equation of a line passing through (1, 1) and perpendicular to the line 3x-4y = 6.

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

PART – B (5x5 = 25 Marks)

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

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 $A^2 - 4A + 7I = 0$.

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

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

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

9 Find the Laplace transform of 3^t.

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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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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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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. 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 -0.576ºC and Freezing point of 1% w/v solution of Boric acid is -0.288ºC].
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?

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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?

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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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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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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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 $\dfrac{x}{(x+1)(x-1)(x+2)}$.

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 $7 \log \dfrac{16}{15} + 5 \log \dfrac{25}{24} + 3 \log \dfrac{81}{80} = \log 2$.

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 $\int 2x + 3x \, dx$.

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

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

PART – B (5x5 = 25 Marks)

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

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 $\displaystyle\int \dfrac{dx}{4 + 9x^2}$.

9   Find the Laplace transform of 3^t.

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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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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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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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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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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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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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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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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 $\dfrac{1}{(x-1)(x-2)(x-3)}$

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 $7 \log \dfrac{16}{15} + 5 \log \dfrac{25}{24} + 3\log \dfrac{81}{82} = \log 2$

4   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 $\dfrac{dy}{dx}$?

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

7   Find the Laplace Transform of (sin3t.cos2t)

8   Evaluate $\displaystyle\int_0^{\pi/2} \dfrac{\sin x}{\cos x}dx =?$

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

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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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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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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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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 $\dfrac{1}{x} - \dfrac{1}{y} = ?$

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

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

   (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 $\lim\limits_{x \to 0} \dfrac{\cos ax - \cos bx}{x^2} = \dfrac{b^2 - a^2}{2}$

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 $\dfrac{d^2 y}{dx^2}$?

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

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

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

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

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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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