FACULTY OF PHARMACY

B. Pharmacy (PCI) I - Semester (Main & Backlog) Examination, March 2025
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 Axial skeleton and list out the bones of the skull.
2. List the different types of taste buds and write their functions.
3. List the bones in the appendicular skeleton.
4. Write any two actions of the parasympathetic system.
5. Write the functions of platelets.
6. Explain the terms vasodilation and vasoconstriction.
7. Explain the terms (a) End diastolic volume and (b) End systolic volume.
8. Explain the terms (a) Angina pectoris and (b) Hypertension.
9. Write the structure and functions of the endoplasmic reticulum.
10. What is the role of Renin in the regulation of blood pressure?

PART – B

Note: Answer any two questions.

(2 x 10 = 20 Marks)

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

12. Describe the structure of the eye. Explain the physiology of vision.

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. Describe the structure and functions of hyaline and elastic cartilage.

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

16. Explain the anatomy of the ear with a neat labelled diagram.

17. Explain the structure and function of the following bones- (a) Sternum (b) Lumbar vertebra

18. Define ECG and correlate ECG with the events of the cardiac cycle.

19. Classify different types of muscular tissues and write their functions.

20. Explain the composition and functions of blood.

21. Explain the structure and functions of lymph nodes with a neat labelled diagram.

22. Write the differences between the sympathetic and parasympathetic nervous system.

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FACULTY OF PHARMACY

B. Pharmacy (PCI) I - Semester (Main & Backlog) Examination, March 2025

Subject: Remedial Biology

Time: 1 ½ Hours   **Max Marks: 35**

PART - A

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

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

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

PART - B

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

3. Write a note on meiosis cell division in plants.
4. Classify the animal tissues and write their functions.
5. Explain how fats will get digested in body.
6. Write a detail note on binomial nomenclature.
7. Write the composition of blood and its functions.
8. Describe mechanism of breathing.
9. Draw the internal structure of heart and label the parts.

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FACULTY OF PHARMACY
B. Pharmacy I - Semester (PCI) (Main & Backlog) Examination, March 2025
Subject: Remedial Mathematics

Time: 1 ½ Hours **Max. Marks: 35**

PART – A

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

1. Using Cramer's rule solve the system of the equations $2x - y + 3z = 9, x + y + z = 6$ and $x - y + z = 2$.

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

PART – B

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

3. Find the equation of the line passing through the point (2,-3) and having intercepts Whose ratio is 3:2.

4. Evaluate $\int \dfrac{\cos(\tan^{-1} x)}{1+x^2} dx$.

5. Prove that $\dfrac{1}{1+\log_a bc} + \dfrac{1}{\log_b ca} + \dfrac{1}{1+\log_c ab} = 1$.

6. Differentiate $\log(\sec x + \tan x)$.

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

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

9. Show that $\displaystyle\lim_{x \to 2} \dfrac{x^3-8x^2+45}{2x^2-3x-9} = -\dfrac{7}{3}$.

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Code No. G-13075/PCI

FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Main & Backlog) Examination, March 2025

Subject: Pharmaceutics

Time: 3 Hours

Max. Marks: 75

PART – A

Note: Answer all the questions.

(10 x 2 = 20 Marks)

1. Classify Liquid dosage forms.
2. Define prescription
3. Calculate the dose for 5 years old boy if adult dose is 100mg?
4. Define Eutectic mixture with an example.
5. Differentiate syrups and elixirs with examples.
6. Describe types of emulsions with examples.
7. Define Suppositories.
8. Give an example for Therapeutic incompatibility.
9. Classify bases used in ointments.
10. Write the formula for Cold cream.

PART – B

Note: Answer any two questions.

(2 x 10 = 20 Marks)

11. Describe parts of a prescription with example. Add a note on types of prescription.
12. Describe solubility enhancement techniques.
13. Explain physical stability of emulsions.

PART – C

Note: Answer any seven questions.

(7 x 5 = 35 Marks)

14. Write a note on Pharmacy as a career.
15. Write a note on Indian Pharmacopoeia.
16. 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].
17. Describe simple and compound powders. Give two official preparations.
18. Differentiate lotions and liniments.
19. Write a note on preparation of suspensions.
20. How do you prepare 6 theobromail suppositories of 1gm. Each contains 500 mg of zinc oxide (Displacement value of zinc oxide as 5).
21. Explain physical incompatibility with examples.
22. Write a note on preparation of ointments.

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Code No. G-13077/PCI

FACULTY OF PHARMACY
B. Pharmacy (PCI) I - Semester (Main & Backlog) Examination, March 2025
Subject: Communication Skills

Time: 1 ½ Hours   Max Marks: 35

PART - A

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

1. Explain the objectives and types of interview with a note on factors responsible for an interview.

2. Discuss the various elements of Communication.

PART - B

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

3. Discuss the Communication process?

4. What is the role of Body language in Communication?

5. Write in detail about Communication style matrix.

6. Write about the common barriers of listening.

7. How to overcome the nervousness before an interview.

8. How do you structure a Presentation?

9. What are the Do's and Don't's of Group discussion.

10. What are the methods to improve the leadership qualities in group discussion?

11. How are feelings and language affecting our Communication perspective?

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Code No: G-13076/PCI

FACULTY OF PHARMACY

B. Pharmacy I - Semester (PCI) (Main & Backlog) Examination, March 2025

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. List out the methods of adjusting isotonicity.
3. Define and classify expectorants.
4. Write the preparation and uses of ferrous gluconate.
5. Mention official preparations of iodine.
6. Define and classify expectorant. *deine & write the [ideal] properties of antacids*
7. Write the reaction involved in the limit test for sulphate.
8. What are the different types of acidifiers?
9. Write the principle involved in limit test for Lead.
10. Define antimicrobials with examples.

PART - B

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

11. Explain the principle and procedure involved in the limit test for Iron and chlorides.
12. Define isotonic solution. Explain the methods of adjusting isotonicity. ✓
13. (a) Write a note on electrolyte combination therapy. ✓
    (b) Add a note on Heavy metallic poisoning and treatment. ✓

PART - C

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

14. Discuss the labeling, handling and storage of radiopharmaceuticals.
15. Explain physiological acid –base balance.
16. List out the various classes of cathartics agents with examples.
17. Write the composition of ringers solution. Explain its importance.
18. Mention the method of preparation, assay of Boric acid and potassium permanganate.
19. Write in detail about the mechanism of Antimicrobial agents.
20. Discuss in detail about desensitizing agents.
21. What are anticaries agents. Explain the role of fluorides in preventing dental caries?
22. Give the method of preparation, assay and uses of Ammonium chloride.

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FACULTY OF PHARMACY

B. Pharmacy (PCI) I - Semester (Main & Backlog) Examination, March 2025
Subject: Pharmaceutical Analysis

Time: 3 Hours

Max. Marks: 75

PART - A

Note: Answer all the questions.

(10 x 2 = 20 Marks)

1. What are self-indicators? Give examples.
2. Explain the Solubility product.
3. What are mixed indicators?
4. What are primary and secondary standard substances? Give examples.
5. Define standard deviation and give its formula.
6. Explain Bronsted acid-base theory.
7. Differentiate between internal and external redox indicators.
8. Define Errors.
9. Explain Nernst equation.
10. Define ligands.

PART - B

Note: Answer any two questions.

(2 x 10 = 20 Marks)

11. Write the principle and different types of titrations involved in Conductometric titrations.

12. Explain the concept of Iodometry and Iodimetry. Give the procedure for the Standardization of sodium thiosulphate solution using potassium iodate.

13. Discuss the principle and application of:
    (a) Redox titration.   (b) Polarography.

PART - C

Note: Answer any seven questions.

(7 x 5 = 35 Marks)

14. Explain the principle of sulphate limit test.

15. Preparation and standardization of 0.1M sodium hydroxide solution.

16. Write a note on Mohr's method.

17. Write the properties of primary standards and secondary standards with examples.

18. What is masking? Write its significance in analysis.

19. Explain the various types of currents of polarographic method.

20. Write the preparation and standardization of 0.1N sodium thiosulphate solution.

21. Explain the estimation of Barium sulphate by gravimetry.

22. Write the basic concept of conductometric titrations.

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