Name.....................   Roll No.......................

Rajasthan University of Health Sciences, Jaipur
University Theory Examination (2024)
B. Pharmacy Semester- I
Subject Name: Communication skills (Theory)

Subject Code: BP105T

Time- 1.5 Hour

Max marks- 35

PART I

Note: Attempt any one of the following-   (1 x 10 =10)

1. Explain the Communication Process in detail, also discuss all its elements.

2. Explain barriers to communication. Discuss how barriers affect effective communication

PART II

Note: Attempt any five questions. All questions carry equal marks.   (5 x 5 = 25)

1. What factors should be considered while planning and delivering an effective presentation?

2. Describe the key aspects of writing an effective email, focusing on subject lines and organizing the message.

3. Define noun and types of noun with example.

4. Write a paragraph on the importance of communication in group discussions.

5. What is active listening? Highlight its importance and challenges during difficult situations.

6. Discuss the importance of body language and tone of voice in face-to-face communication.

7. Explain why good communication skill is important during an interview.

Name.....................

Rajasthan University of Health Sciences, Jaipur
Main University Theory Examination (2024)

B. Pharmacy Semester- I

Subject Name: Remedial Mathematics (Theory)

Subject Code: BP106RMT

Time- 1.5 Hour   Max marks- 35

PART I

Note: Attempt any one of the following-   (1 x 10 =10)

1. (a) What features distinguish a triangular matrix from other types? Could you share examples of upper and lower triangular matrices?

or

(b) Explain polynomials and properties of quadratic polynomials.

2. Find the A^{-1} of the Given matrix

$$A = \begin{vmatrix} 4 & 2 & 1 \\ 7 & 3 & 7 \\ 2 & 2 & 1 \end{vmatrix}$$

PART II

Note: Attempt any five questions. All questions carry equal marks.   (5 x 5 = 25)

1. Given $f(x) = \sin(x)$ and $g(x) = 1 - \cos(x)$, calculate $(f + g)(\pi/4)$.
2. Add and Subtract the fractions 4/12 and 9/11.
3. Find the distance between the points (8, -1) and (3, -9).
4. Prove that the quadrilateral with vertices) A(2, 2) , B(4,6), C(6,2) and D(4,−2) is a rhombus by showing that all sides are equal.
5. Obtain the domain and range of the following function:

(i) $f(x) = x^2 + 1$

6. if $f(x)=x^4+5x^2+2x+9$ find d/dx
7. Define function and type of function.

Bachelor of Pharmacy I Semester - End Semester Examination October- 2024

3601

HUMAN ANATOMY AND PHYSIOLOGY-I

Instructions to the candidates:

1. Do not write anything on question paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. Section-A contains Q-1 and Q-2 with Five (5) questions each. All the Ten very short type questions are compulsory and carry equal marks (10 x 2 = 20).
3. Section-B contains Q-3, Q-4 and Q-5. Answer any TWO questions among the three descriptive type questions and carry 10 marks each. (2 x 10=20).
4. Section-C contains Q-6 and Q-7 with FIVE (5) and FOUR (4) sub divisions. Answer any FOUR (4) and THREE (3) questions of choice among the short answer type questions and all carry 5 marks each. (7 x 5 = 35)

Duration: 3 Hours   No. of Pages in this Question Paper: 2   Total Marks: 75

Section – A

1. Answer the following questions in very short (Maximum 20 words):   5 x 2 = 10

     a) Erythrocytes

     b) Mast cells

     c) Epidermis

     d) Two disorders of the eye

     e) Blood pressure

2. Answer the following questions in very short (Maximum 20 words):   5 x 2 = 10

     a) Electrocardiogram

     b) Lymph nodes

     c) Pernicious anemia

     d) Neutrophils

     e) Adipose tissue

Section – B

Answer (Any Two) of following questions in Long answer: 2 x 10 = 20

3. Draw the structure of heart with neat and labelled diagram and explain the cardiac cycle.

4. Explain the structure and functions of eye with labelled diagram.

5. Enlist the clotting factors. Describe in detail the mechanisms that contribute to haemostasis.

Section – C

6. Answer (Any Four) of the following in short answer: 4 x 5 = 20

a) Origin and functions of Cranial nerves.

b) Transport of substances across cell membrane.

c) Types of muscular tissue.

d) Various forms of intracellular cell signalling.

e) Functions of the skin.

7. Answer (Any Three) of the following questions in short answer: 3 x 5 = 15

a) Different types of synovial joints.

b) Cell and its organelles.

c) ABO and Rh blood types.

d) Formation, circulation and composition of lymph.

PHARMACEUTICAL ANALYSIS-I

Instructions to the candidates:
1. Do not write anything on question paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. Section-A contains Q-1 and Q-2 with Five (5) questions each. All the Ten very short type questions are compulsory and carry equal marks (10 x 2 = 20).
3. Section-B contains Q-3, Q-4 and Q-5. Answer any TWO questions among the three descriptive type questions and carry 10 marks each. (2 x 10=20).
4. Section-C contains Q-6 and Q-7 with FIVE (5) and FOUR (4) sub divisions. Answer any FOUR (4) and THREE (3) questions of choice among the short answer type questions and all carry 5 marks each. (7 x 5 = 35)

Duration: 3 Hours   No. of Pages in this Question Paper: 1   Total Marks: 75

Section – A

$5 \times 2 = 10$

1. Answer the following questions in very short (Maximum 20 words):
   a) Difference between iodometry and iodimetry.
   b) Write a principle of Mohr's method.   c) Define levelling effect
   d) What are redox indicators?   e) What do you mean by normality?

$5 \times 2 = 10$

2. Answer the following questions in very short (Maximum 20 Words):
   a) Write a note on the significant figure.
   b) Differentiate between accuracy and precision.
   c) Give the names of indicators used Fajan's method.
   d) Differentiate protophilic and protogenic solvents.
   e) Explain different types of EDTA titrations.

Section – B

$2 \times 10 = 20$

Answer (Any Two) of following questions in Long answer:

3. Describe in detail about conductometric titration.
4. Define the neutralization curve. Explain titration curves for the neutralization of different acid-base solutions.
5. Explain the different types and sources of error. Describe briefly various techniques used for minimizing errors.

Section – C

$4 \times 5 = 20$

6. Answer (Any Four) of the following questions in Short answer:
   a) Write a note on co-precipitation and post-precipitation.
   b) Write a detail on the principle, procedure and uses of Volhard's method.
   c) What are gravimetric titrations? Classify them. Write in brief on precipitation gravimetry.
   d) Write in brief on masking and demasking agents.
   e) Write principle and procedure involved in estimation of magnesium sulphate.

$3 \times 5 = 15$

7. Answer (Any Three) of the following questions in Short answer:
   a) Describe the principles of complexometry. Write its application.
   b) Write a brief on metal-ion indicator.
   c) Explain the construction and working of calomel electrode.
   d) Write the role of solvents used in non-aqueous titration.

Bachelor of Pharmacy I Semester - End Semester Examination October - 2024

3604

Pharmaceutical Inorganic Chemistry

Instructions to the candidates:
1. Do not write anything on question paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. Section-A contains Q-1 and Q-2 with Five (5) questions each. All the Ten very short type questions are compulsory and carry equal marks (10 x 2 = 20).
3. Section-B contains Q-3, Q-4 and Q-5. Answer any TWO questions among the three descriptive type questions and carry 10 marks each. (2 x 10=20).
4. Section-C contains Q-6 and Q-7 with FIVE (5) and FOUR (4) sub divisions. Answer any FOUR (4) and THREE (3) questions of choice among the short answer type questions and all carry 5 marks each. (7 x 5 = 35)

Duration: 3 Hours   No. of Pages in this Question Paper: 1   Total Marks: 75

Section – A

1. Answer the following questions in very short (Maximum 20 words):   5 x 2 = 10
    a) Explain about units of radioactivity.
    b) What is half life? Give details about it.
    c) Write a note on zinc eugenol.
    d) Principle & reaction of limit test of sulphate.
    e) Write about monograph of I.P.

2. Answer the following questions in very short (Maximum 20 Words):   5 x 2 = 10
    a) Write mechanism of action of antimicrobial agents.
    b) History of Indian Pharmacopoeia.   c) Write a note on ORS.
    d) Short note on types of impurity.   e) Give storage condition of ferrous sulphate.

Section – B

Answer (Any Two) of following questions in Long answer: 2 x 10 = 20

3. Write principle and procedure for limit test of iron & lead.

4. What are antacids? Classify them with examples. Give mechanism of action, Discuss combination of antacid preparations.

5. Give the composition of intra and extracellular electrolytes. Discuss role of potassium and chloride in body.

Section – C

6. Answer (Any Four) of the following questions in Short answer: 4 x 5 = 20
    a) Write a note on saline cathartics.
    b) Write a note on expectorant.
    c) Write a brief note on poison & antidote.
    d) Write a note on buffers.
    e) Write a note on emetic.

7. Answer (Any Three) of the following questions in Short answer: 3 x 5 = 15
    a) Write a note on topical agents.
    b) Write a note on desensitizing agent.
    c) Write a note on astringent.
    d) Write in brief about different acid base concept.

0423089

Instructions to the candidates:
1. Do not write anything on question paper except Roll Number, otherwise it shall be deemed as an act of indulging in unfair means and action shall be taken as per rules.
2. Section-A contains Q-1 and Q-2 with Five (5) questions each. All the Ten very short type questions are compulsory and carry equal marks (10 x 2 = 20).
3. Section-B contains Q-3, Q-4 and Q-5. Answer any TWO questions among the three descriptive type questions and carry 10 marks each. (2 x 10=20).
4. Section-C contains Q-6 and Q-7 with FIVE (5) and FOUR (4) sub divisions. Answer any FOUR (4) and THREE (3) questions of choice among the short answer type questions and all carry 5 marks each. (7 x 5 = 35)

Duration: 3 Hours   No. of Pages in this Question Paper: 1   Total Marks: 75

Section – A

1. Answer the following questions in very short (Maximum 20 words):   5 x 2 =
   a) Tablet dosage form   b) Eutectic mixtures
   c) Biphasic liquid dosage forms   d) Displacement value
   e) Ointments

2. Answer the following questions in very short (Maximum 20 Words):   5 x 2 =
   a) Elixirs   b) Liniments and lotions
   c) Geometric dilutions   d) Posology
   e) Cosolvency

Section – B

Answer (Any Two) of following questions in Long answer: 2 x 10 = 7
3. Write a detailed note on preparation, handling and errors in prescription.
4. Discuss in detail the preparation and evaluation of ointments.
5. Write short note on following:
   a) Solubility enhancement techniques.   b) Emulsions stability and preparation.

Section – C

6. Answer (Any Four) of the following questions in Short answer: 4 x 5 = 2
   a) Proof spirit and isotonic solutions.
   b) Factors affecting posology and pediatric dose calculations.
   c) Pharmacy on a career and pharmacopoeias.
   d) Gargles and mouthwashes.
   e) Bases of suppositories.

7. Answer (Any Three) of the following questions in Short answer: 3 x 5 =
   a) Physical incompatibilities with examples.
   b) Suspension stability problems and classification.
   c) Syrups and Elixirs.
   d) Parenteral dosage forms.