



AUTUMN END SEMESTER EXAMINATION-2024

1st Semester B.Pharm

HUMAN ANATOMY & PHYSIOLOGY-I

BP 101

(For 2024 Admitted Batch)

Time: 3 Hours

Full Marks: 75

*Answer Question No.1 (Part-A) is compulsory,
any SEVEN from Part-B and any TWO from Part-C.*

The figures in the margin indicate full marks.

All parts of a question should be answered at one place only.

PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]

- (a) What are the functions of fibroblast cells in connective tissue?
- (b) Write the functions of cytoskeleton in human cells.
- (c) Give the difference between sprain and strain.
- (d) Write two functions of lymph node.
- (e) Name the neuroglial cells, which are present in central nervous system (CNS).
- (f) Define anemia. Write the causative factor of Pernicious anemia.
- (g) Write the name of the cells, which are present in olfactory epithelium.
- (h) Name the sutures present in cranial bone.
- (i) What are the parts of sternum?
- (j) What is the difference between exocytosis and endocytosis?

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5 × 7]
- (a) Define cell junction. Explain about different types of cell junction.
 - (b) Write the structure of cartilage. Explain the structure of hyaline cartilage.
 - (c) Write the structure and function of blood.
 - (d) Classify neurons according to their structural and functional properties.
 - (e) Write the different disorders that are associated with eye. Explain about the different types of glaucoma.
 - (f) Write the structure of internal ear with labelled diagram.
 - (g) Explain how the conduction system helps in the propagation of action potential in the heart?
 - (h) Write the function of vertebral column. Name the bone that are present in vertebra.
 - (i) Write the physiology of muscle contraction.

PART-C

Long Answer Type Questions (Answer Any Two)

- 3. How homeostasis maintains physiological equilibrium by regulating feedback mechanism. Explain with examples. [10]
- 4. With a neat, labelled diagram, describe the basic structures of a synovial joint and lists the different types of synovial joints. [10]
- 5. Describe the structure of heart with labelled diagram. Explain how heart regulates the systemic and Pulmonary Circulations. [10]



AUTUMN END SEMESTER EXAMINATION-2024

1st Semester B.Pharm

PHARMACEUTICAL ANALYSIS-I

BP 102

(For 2024 Admitted Batch)

Time: 3 Hours

Full Marks: 75

*Answer Question No.1 (Part-A) is compulsory,
any SEVEN from Part-B and any TWO from Part-C.*

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PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]
- (a) Define normality.
 - (b) Write molecular formula and weight of sodium thiosulphate.
 - (c) What is the role of mercuric chloride paper in the Arsenic limit test?
 - (d) Write a suitable assay method for methyl DOPA as you studied.
 - (e) Explain adjacent indicator with example.
 - (f) What is sequestering agent?
 - (g) How sulfonamide can be assayed – as you studied.
 - (h) Explain on potassium iodate.
 - (i) Define Ohm law.
 - (j) Write any salt of strong acid and strong base.

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5 × 7]
- (a) Describe the Ilkovic equation.
 - (b) Explain and draw Calomel electrode.
 - (c) How to prepare and standardize 0.1M NaOH solution?
 - (d) What are scope of Pharmaceutical analysis?
 - (e) Explain limit test for chlorides.
 - (f) Write a note on Non-aqueous solvents.
 - (g) How to estimate sodium chloride by Mohr's method.
 - (h) Give a note on Diazotitration titration
 - (i) Write briefly on redox indicators.

PART-C

Long Answer Type Questions (Answer Any Two)

- 3. Explain all theories of Acids and bases with suitable examples. [10]
- 4. Write a note on Volhard's method and modified Volhard's method. [10]
- 5. Write a note SHE (Standard Hydrogen Electrode) and Silver-Silver chloride electrodes. [10]



AUTUMN END SEMESTER EXAMINATION-2024

1st Semester B.Pharm

PHARMACEUTICS-I

BP 103

(For 2024 Admitted Batch)

Time: 3 Hours

Full Marks: 75

*Answer Question No.1 (Part-A) is compulsory,
any SEVEN from Part-B and any TWO from Part-C.*

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All parts of a question should be answered at one place only.

PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]
- (a) What is proof spirit?
 - (b) Write the Drilling's Formula for children dose calculation.
 - (c) Differentiate emulsion and suspension.
 - (d) What is eutectic mixture? Give example.
 - (e) Define ointments and pastes.
 - (f) What is IP? When first edition of IP was published?
 - (g) Differentiate flocculated and deflocculated suspension.
 - (h) What is inscription? How it differ from superscription?
 - (i) What is isotonic solution? Write its importance.
 - (j) What is Displacement value?

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5 × 7]
- (a) Write a note on IP with special preference to 9th edition.
 - (b) Write a short note on stability problem of suspension.

- (c) Write the test for the identification of type of Emulsion.
- (d) Write briefly various excipients used in semi solid dosage form.
- (e) Classify the powders. Write a short note on Effervescent powders.
- (f) Briefly describe various additives used in liquid dosage forms.
- (g) Write a short note on Throat paints. How it differ from gargles?
- (h) Define and Classify the incompatibility. Write chemical incompatibility with examples.
- (i) Write a short note on evaluation of semisolids.

PART-C

Long Answer Type Questions (Answer Any Two)

- 3. Define Prescription and write its importance. Write in detail various parts of prescription. Write the various prescription errors. [10]
- 4. Write various methods of preparation of suppository and give a note on evaluations of suppository. [10]
- 5. Write the various methods of preparation of emulsion and describe stability problems of Emulsion. [10]



AUTUMN END SEMESTER EXAMINATION-2024

1st Semester B.Pharm

PHARMACEUTICAL INORGANIC CHEMISTRY

BP 104

(For 2024 Admitted Batch)

Time: 3 Hours

Full Marks: 75

*Answer Question No.1 (Part-A) is compulsory,
any SEVEN from Part-B and any TWO from Part-C.*

The figures in the margin indicate full marks.

All parts of a question should be answered at one place only.

PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]

- (a) Write any two effects of impurities in pharmaceutical substances.
- (b) What are acidifiers? Give examples.
- (c) Mention the units of radioactivity.
- (d) Define anti-microbial agents with suitable examples.
- (e) What is blue vitriol? Write its formula and uses.
- (f) Name the techniques used for the measurement of radioactivity.
- (g) Mention the methods used for adjusting isotonicity.
- (h) Define limit test.
- (i) Define buffer capacity and composition of buffer solution.
- (j) Name the antidotes of cyanide poisoning.

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5 × 7]
- (a) Define astringents. Describe the properties, preparation and uses of Potash alum.
 - (b) Write the limit test for Iron.
 - (c) Write a note on role of fluoride in the treatment of dental caries.
 - (d) What are antimicrobial agents and write a note on Iodine and its preparations.
 - (e) Write the method of preparation and assay of Ammonium chloride.
 - (f) Define haematinics. Write down the monograph of Ferrous sulphate.
 - (g) Write about the preparation, assay and use of Calcium gluconate.
 - (h) What is meant by radioactivity? How do you measure the radioactivity of a Compound?
 - (i) Write a note on α , β , γ radiation. Mention the importance of Sodium iodide.

PART-C

Long Answer Type Questions (Answer Any Two)

- 3. Write the various sources of impurities in pharmaceutical substances with suitable examples. [10]
- 4. Discuss about major intra and extracellular electrolytes used in replacement therapy. What is the composition of ORS as per WHO? [10]
- 5. Define antacid? Classify and write down the ideal properties of an antacid. Write the monograph of Aluminum hydroxide gel. [10]
