



Semester: 2nd
Programme: B.Pharm

SUPPLEMENTARY EXAMINATION-2025
2nd Semester B.Pharm
HUMAN ANATOMY AND PHYSIOLOGY II
BP 201T

(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]
- What is the functions of association area in the cerebral cortex?
 - Name two enzymes that is released from zymogenic cells.
 - What is thyrotoxicosis? Name the disease that is due to thyrotoxicosis.
 - What is the function of leydig cells?
 - What is the major important function of reticular activating system (RAS)?
 - What is Haldane effect?
 - How insulin resistance causes diabetics?
 - Define glomerular filtration rate (GFR). What is normal GFR for males?
 - What is the difference between spontaneous and induced mutation?
 - Write two examples of peptide derived neurotransmitter.

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5× 7]
- (a) Classify hormones according to their chemical structure.
 - (b) Write the mechanism of acid secretion from stomach.
 - (c) How bronchial tree is formed? What is the structural features of bronchial tree?
 - (d) What are the properties of genetic code?
 - (e) Write the internal anatomy of kidney.
 - (f) How hormonal regulation control female reproductive Cycle?
 - (g) What is blood–brain barrier (BBB)? Write the structure and functions of BBB.
 - (h) How hormonal dysregulation causes endocrine disorders? Explain with examples.
 - (i) What is Autosomal dominant inheritance? How autosomal dominant inheritance causes disease? Explain with examples.

PART-C

Long Answer Type Questions (Answer Any Two)

3. How oxygen is transported in the blood? Describe about the different factors that affect oxygen binding with hemoglobin. [5+5]
4. Explain the chemical method of digestion in small intestine. [10]
5. Write the structure of Bowman's capsule. Explain the physiology of urine formation. [10]



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PHARMACEUTICAL ORGANIC CHEMISTRY I
BP 202T

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PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]
- What is Saytzeffs rule?
 - What is Schiff's test?
 - Draw the structure of Salicylic acid.
 - Write the structure of cinnamaldehyde.
 - What are the isomerism shown by alkenes?
 - Write the structure of acetyl salicylic acid.
 - Write the structure and uses of benzyl alcohol and Iodoform.
 - What is lucas reagent and write its use.
 - What is Anti-Markownikoff's rule?
 - Name the qualitative test for the amines.

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5 × 7]
- Write a short note on Diel-Alder reactions with suitable example.

- (b) Write the Perkin and Benzoin condensation with example.
- (c) Write various qualitative tests for the alcohol.
- (d) Describe in brief the E1 and E2 reaction with example.
- (e) Classify the organic compound with suitable example. Write the structure of glycerol.
- (f) Write a short note on aldol condensation. How it differ from crossed aldol condensation?
- (g) Describe the effects of substituents on basicity of amines with examples.
- (h) Write the qualitative test for amides.
- (i) Write a short note on Diel-Alder reactions with suitable example.

PART-C

Long Answer Type Questions (Answer Any Two)

- 3. Write the qualitative test for the Carboxylic acids. Write the structure and uses of Benzoic acid. [10]
- 4. Define isomerism. Classify the isomerism. Write a note on structural isomerism with example. [10]
- 5. Write a detail note on reaction mechanism of SN1 and SN2 reaction with example. Describe the factors affecting SN1 and SN2 reactions. [10]



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SUPPLEMENTARY EXAMINATION-2025

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BIOCHEMISTRY

BP 203T

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Time: 3 Hours

Full Marks: 75

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PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]
- What are mucopolysaccharides? Give two examples of mucopolysaccharides.
 - Define Epimers with examples.
 - Define termination step of transcription with examples.
 - Define Genetic code. How many codons are involved in protein synthesis?
 - What is protein denaturation?
 - What is Chargaff's rule & Okazaki fragment?
 - Write the difference between Exergonic reaction & Endergonic reaction.
 - Give two examples of Essential fatty acids.
 - Define enzymes. Write the names of types of Enzyme specificity.
 - Classify lipids schematically.

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5×7]
- (a) Write the difference between DNA and RNA.
 - (b) Define bioenergetics. Write the difference between ATP & cAMP.
 - (c) Classify proteins with suitable examples & write the biological significance of proteins.
 - (d) Elaborate the mechanisms of enzyme action briefly.
 - (e) Write a short note on HMP shunt.
 - (f) Write about Atherosclerosis disorder briefly.
 - (g) Describe the process of Transcription.
 - (h) Write a short note on Glycogen storage diseases.
 - (i) Write the steps for synthesis of bile acids from cholesterol.

PART-C

Long Answer Type Questions (Answer Any Two)

- 3. What is biosynthesis of fatty acids? Describe the biosynthesis of Palmitate from acetyl Co A. [10]
- 4. What are enzymes? Classify enzymes with suitable examples and describe enzyme inhibition briefly. [10]
- 5. Describe about nucleotides. Enumerate DNA replication with suitable structures. [10]



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PATHOPHYSIOLOGY

BP 204T

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Time: 3 Hours

Full Marks: 75

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PART-A

1. Objective Answer Type Questions (Answer All) [2 × 10]
- Define hypertrophy. Give an example pathological hypertrophy.
 - Define depression. Write four non pharmacological treatment.
 - Define AIDS and mention two modes of transmission of HIV/AIDS.
 - Write two specific characteristics of cancer cells.
 - What is the difference between necrosis and apoptosis?
 - What is Gonorrhoea, how is gonorrhoea transmitted? Write two complications of untreated gonorrhoea.
 - What is the difference between acute and chronic disease?
 - What is atherosclerosis? Mention any two risk factors.
 - What is the causative agent of typhoid? Name one common symptom of typhoid fever.
 - Define cell injury and write the causes of cell injury.

PART-B

2. Focused-Short Answer Type Questions-(Answer Any Seven) [5× 7]
- (a) Write detail note on Alzheimer disease.
 - (b) Write about schizophrenia, including its symptoms and causes.
 - (c) Define peptic ulcer disease. Explain its causes and risk factors.
 - (d) Define Urinary Tract Infection (UTI). Explain its causes, pathophysiology, and clinical manifestations.
 - (e) Write two systematic factors that affect wound healing.
 - (f) Explain the pathogenesis and clinical symptoms of COPD.
 - (g) Write the difference between Rheumatoid arthritis and Gout.
 - (h) Explain various types of cellular adaptations? Give examples.
 - (i) Write short note on mediators of inflammation.

PART-C

Long Answer Type Questions (Answer Any Two)

3. Define & classify Hypertension. How the pathogenesis of hypertension is associated with RAAS system? [10]
4. Define inflammation. Write the pathogenesis of cellular events of acute inflammation. [10]
5. Explain the pathophysiology of acute & chronic renal failure. [10]
