



G. PULLA REDDY COLLEGE OF PHARMACY
AUTONOMOUS

Affiliated to **Osmania University** Approved by **PCI** & Accredited by **NAAC**
Mehdipatnam, Hyderabad - 500028. Telangana State.

B. PHARMACY SECOND SEMESTER REGULAR EXAMINATIONS, SEP-2026

Subject: HUMAN ANATOMY AND PHYSIOLOGY-II

Subject Code: BP201T

QP Code: BP1101TE26

Time: 03 Hours

Max Marks: 75

SECTION - A

10X2 = 20M

Answer ALL Questions.

Each Question carries 02 Marks

S.No	Questions
1	Define neuroglia and mention any two functions.
2	What is a reflex action? Name its basic components.
3	Mention the functions of the pancreas in digestion.
4	Define creatine phosphate and state its role in energy metabolism.
5	Define tidal volume and vital capacity.
6	What is micturition? Name the reflex involved.
7	What are peptide hormones? Give one example.
8	Mention any two functions of the thyroid hormones.
9	Define spermatogenesis.
10	What is a chromosome? Mention its basic chemical components.

SECTION - B

02X10 = 20M

Answer Any 02 Questions.

Each Question carries 10 Marks

S.No	Questions
11	Explain the structure and functions of the cerebrum and brain stem.
12	Explain about production and regulation of acid secretion by describing the anatomy of stomach with diagram
13	Explain the mechanism of respiration and transport of respiratory gases at cellular level

SECTION - C

07 X 05 = 35 M

Answer Any 07 Questions.

Each Question carries 05 Marks

S.No	Questions
14	Classify the nervous system and explain the major divisions of the central nervous system.
15	Describe the structure and functions of the thalamus, hypothalamus cerebellum and brain stem.
16	Explain the anatomy and functions of the liver, pancreas and salivary glands in digestion.
17	Discuss the formation and physiological significance of ATP and explain BMR.
18	Describe lung volumes and capacities and explain their physiological significance in respiration
19	Explain the process of urine formation.
20	List out the hormones of Pituitary gland. Explain in detail about oxytocin
21	Describe the male and female reproductive systems and explain the functions of the major reproductive organs.
22	Explain DNA structure and describe the basic process of protein synthesis.



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B. PHARMACY SECOND SEMESTER REGULAR EXAMINATIONS, SEP-2026

Subject: PHARMACEUTICAL ORGANIC CHEMISTRY I

Subject Code : BP202T

QP Code: BPII02TE26

Time: 03 Hours

Max Marks: 75

SECTION - A

10X2 = 20M

Answer ALL Questions.

Each Question carries 02 Marks

S.No	Questions
1	Define the following terms: Functional group and Carbocation.
2	Write the IUPAC names for the following structures: $\text{H}_3\text{C}-\text{CH}_2-\text{CH}_2-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$ $\text{H}_3\text{C}-\text{CH}=\text{CH}-\overset{\text{OH}}{\underset{ }{\text{CH}}}-\text{CH}_3$
3	Write the significance of Tollen's test.
4	Aliphatic amines are more basic than aromatic amines. Justify.
5	What is iodoform test? Give one example.
6	Describe Saytzeff's rule with an example.
7	Classify alcohols with examples.
8	Explain Sp^2 hybridization with an example.
9	Give the structure and uses of salicylic acid.
10	Write the structure and uses of Citric acid.

SECTION - B

02X10 = 20M

Answer Any 02 Questions.

Each Question carries 10 Marks

S.No	Questions
11	a) Differentiate between Markownikov's and Anti-Markownikov's addition of alkenes. b) Write about addition reactions of dienes.
12	Explain the mechanism, kinetics and stereochemistry involved in SN^2 reactions of alkyl halides.
13	Define 'isomerism'. Explain various types of structural isomerism with examples.

SECTION - C

07 X 05 =

35 M

Answer Any 07 Questions.

Each Question carries 05 Marks

S.No	Questions
14	Explain the stability of conjugated dienes.
15	Explain the mechanism involved in the aldol condensation with examples.



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16	Write any two qualitative tests to differentiate various classes of alcohols.
17	Write any two methods of preparation and reactions of alkanes with examples.
18	Explain about electrophilic addition reactions of alkenes with examples.
19	Explain the general mechanism involved in nucleophilic addition reactions of carbonyl compounds.
20	Describe about free-radical substitution reactions of alkanes with examples.
21	Explain the acidity of carboxylic acids with the effect of substituent on their acidity.
22	Write any two qualitative tests to differentiate various classes of amines.





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B. PHARMACY SECOND SEMESTER REGULAR EXAMINATIONS, SEP-2026

Subject: COMPUTER APPLICATIONS IN PHARMACY

Subject Code : BP205T

QP Code: BPII05TE26

Time: 02 Hours

Max Marks: 50

SECTION - A

2X10 = 20M

Answer any Two of the following.

Each Question carries 10 Marks

S.No	Questions
1	A) Explain about slide Control in detail. B) Write about Text Formatting and Paragraphs.
2	A) Explain concepts and Importance of SOPs. B) Write about Programming Languages.
3	A) Explain about Operators and Expressions in Python Programming. B) Write about Introduction to Libraries.

SECTION - B

06 X 05 = 30M

Answer Any 06 Questions.

Each Question carries 5 Marks

S.No	Questions
4	Explain about basics of Excel
5	Write about Templates in Power Point in detail.
6	Explain about Tables, Queries, Forms and Reports in MS -Access.
7	Write about Web Servers and Server Products.
8	Explain about Structure of HTML.
9	Write about Input and Output Statements with Examples.
10	Explain about Functions and Modules.
11	Write about Loops



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B. PHARMACY SECOND SEMESTER REGULAR EXAMINATIONS, SEP-2026
Subject: BIOCHEMISTRY

Subject Code : BP203T

QP Code: BPII03TE26

Time: 03 Hours

Max Marks: 75

SECTION - A

10X2 = 20M

Answer ALL Questions.

Each Question carries 02Marks

S.No	Questions
1	Define carbohydrates. Mention their biological functions.
2	Differentiate between reducing and non-reducing sugars.
3	List the irreversible steps of glycolysis.
4	Mention the role of glucagon in glucose metabolism.
5	Write any two functions of HDL cholesterol.
6	Define obesity. Mention two biochemical risk factors.
7	Define DNA replication.
8	Define transcription.
9	State the Michaelis–Menten equation.
10	Differentiate between competitive and non-competitive inhibition.

SECTION - B

02X10 = 20M

Answer Any 02 Questions.

Each Question carries 10Marks

S.No	Questions
11	Explain DNA replication and the role of enzymes involved.
12	Explain the steps involved in glycolysis and mention its regulation
13	a. Discuss the β -oxidation of fatty acids and its significance. b. Explain cholesterol biosynthesis and its regulation.

SECTION - C

07 X 05 = 35M

Answer Any 07 Questions.

Each Question carries 05Marks

S.No	Questions
14	Explain the structure and biological functions of carbohydrates.
15	Discuss the classification and biological importance of proteins.
16	Describe the citric acid (TCA) cycle and state its significance.
17	Explain the hormonal regulation of blood glucose by insulin and glucagon.
18	Describe the biochemical changes associated with obesity.
19	Explain briefly on disorders of lipid metabolism.
20	Discuss the salient features and significance of the genetic code.
21	Explain the role of coenzymes and cofactors in enzyme-catalyzed reactions.
22	Discuss the therapeutic and diagnostic applications of enzymes with suitable examples.



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B. PHARMACY SECOND SEMESTER REGULAR EXAMINATIONS, SEP-2026

Subject: ENVIRONMENTAL SCIENCES

Subject Code : BP206T

QP Code: BPH06TE26

Time: 02 Hours

Max Marks: 50

SECTION - A

2X10 = 20M

Answer any **02** of the following.

Each Question carries 10 Marks

S. No	Questions
1	What are the causes of Soil Pollution? How can we reduce Soil Pollution? What is its impact on Human Health?
2	Classify the different types of Forests. What are the resources that we get from Forest.
3	Explain the concept, structure, and functions of an Ecosystem in detail. Give a comprehensive note on Grassland Ecosystems.

SECTION - B

06 X 05 = 30M

Answer Any **06** Questions.

Each Question carries 5 Marks

S. No	Questions
4	Explain the environmental impacts caused by modern agriculture, focusing on excessive pesticide/fertilizer use, water logging, and soil salinity.
5	Discuss Water Resources and explain the issues associated with over-utilization of ground and surface water.
6	Write a short note on Marine Pollution, covering its primary sources, impact on marine organisms, and control measures.
7	What are the different types of deserts? Explain the adaptations of plants and animals for desert life.
8	List and differentiate between renewable and non – renewable resources with examples.
9	Briefly Explain the aquatic ecosystem and its benefits to mankind.
10	Explain the major reasons for air pollution.
11	Write a note on the energy resources.



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B. PHARMACY SECOND SEMESTER REGULAR EXAMINATIONS, SEP-2026
Subject: PATHOPHYSIOLOGY

Subject Code : BP204T

QP Code: BPII04TE26

Time: 03 Hours

Max Marks: 75

SECTION - A

10X2 = 20M

Answer ALL Questions.

Each Question carries 02 Marks

S.No	Questions
1	Define the terms cell injury, pyknosis, karyorrhexis, karyolysis
2	What is metaplasia and hyperplasia? Give one example.
3	Mention any 4 haematological disorders.
4	Define and differentiate Asthma and COPD
5	Explain the pathogenesis of Atherosclerosis.
6	Define Glomerular Filtration Rate (GFR) and its normal range?
7	Evaluate the role of Dopamine in Parkinson's disease.
8	Importance of neurotransmitters in Alzheimer's disease
9	What is DOTS therapy?
10	Define jaundice and mention its types?

SECTION - B

02X10 = 20M

Answer Any 02 Questions.

Each Question carries 10 Marks

S.No	Questions
11	Define, classify and write the pathogenesis of epilepsy.
12	Discuss about cellular and vascular events involved in the acute inflammation
13	Define the term tumour, classify it? Write etiology, pathogenesis of cancer

SECTION - C

07 X 05 = 35 M

Answer Any 07 Questions.

Each Question carries 05 Marks

S.No	Questions
14	Write the sequence of events in the pathogenesis of reversible and irreversible cell Injury
15	Contrast the characteristics of benign and malignant tumours
16	Explain the pathogenesis in peptic ulcer
17	Identify clinical manifestations of inflammatory bowel disease
18	Discuss the clinical features and pathogenesis of Rheumatoid arthritis
19	Write the pathophysiology of Tuberculosis.
20	Explain the pathogenesis, transmission and diagnosis features of syphilis, Gonorrhoea
21	Discuss about etiopathogenesis and clinical features of Chronic Renal Failure.
22	What is Alzheimer disease? Enumerate its etiopathogenesis, signs and symptoms