

B.Pharmacy II Semester (PCI) (Main) Examination Jul/Aug 2024

Subject & Code: HUMAN ANATOMY AND PHYSIOLOGY-II & BP201T

Time: 3 Hours

Max. Marks: 75

PART- A

Note: Answer ALL questions

(10 x 2 = 20 Marks)

Q.No.	Question	CO	BL
1	Define synapse and mention the different neurotransmitters.		1
2	Explain the following a. action potential b. hyperpolarization.	1	2
3	Explain the structure and function of parasympathetic nervous system.	1	2
4	Write a note on thymus gland.	1	1
5	Discuss BMR.	2	2
6	Describe Disorders of Kidney.	4	2
7	Write a note on functions of liver.	2	3
8	Write a note on micturition reflex.	4	3
9	Define Pineal gland.	2	1
10	Explain the term DNA, Gene chromosome, Nucleosome.	6	2

PART B

Note: Answer any TWO questions

(2 x 10 = 20 Marks)

Q.No.	Question	CO	BL
11	Describe the neurohumoral regulation of acid secretion in stomach and write a note on peptic ulcers.	2	2
12	Discuss the function of DNA and write a note on genetic inheritance.	6	2
13	Explain the structure and functions of pituitary gland.	5	2

PART C

Note: Answer any SEVEN questions

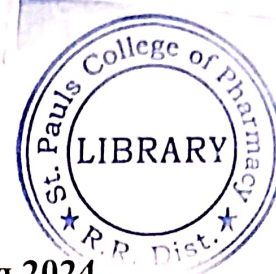
(7 x 5 = 35 Marks)

Q.No.	Question	CO	BL
14	Describe the structure of reflex arc.	1	2
15	Explain ventricles of brain.	1	2
16	Explain how respiratory areas control respiration.	3	2
17	Describe the parts of female reproductive system.	6	2
18	Give a note on the role of RAS system in kidney functions.	4	2
19	Explain the structure of thyroid gland.	5	2
20	Enlist the functions of liver and gall bladder.	2	1
21	Describe the Anatomy and functions of alveoli.	3	2
22	Write a note on lung volumes and lung capacity.	3	2

Code. No. B082423

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B.Pharmacy II Semester (PCI) (Main) Examination Jul/Aug 2024

Subject & Code: **BIOCHEMISTRY & BP203T**

Time: 3 Hours

Max.Marks: 75

PART- A

Note: Answer ALL questions

(10 x 2 = 20 Marks)

Q.No.	Question	CO	BL
1	What is a carbohydrate and its function in human body?	1	2
2	Define glycolysis and gluconeogenesis.	1	2
3	Mention types of RNA & their functions.	2	2
4	Write the functions of Nucleic acids.	2	2
5	What are the functions of lipids in the human body?	1	2
6	What is atherosclerosis?	2	2
7	What is enzyme inhibition?	2	2
8	Give biological significance of proteins.	2	1
9	Differentiate between DNA & RNA.	5	2
10	Define Transcription and Translation.	2	2

PART- B

Note: Answer any TWO questions

(2 x 10 = 20 Marks)

Q.No.	Question	CO	BL
11	Define enzymes, Write their IUB classification and factors affecting enzyme action.	2	2
12	Explain the DNA replication process and enzymes involved in this process.	3	2
13	Discuss the biosynthesis of purine nucleotides.	3	2


PART- C

Note: Answer any SEVEN questions

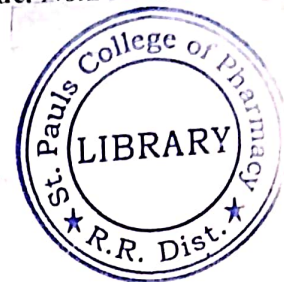
(7 x 5 = 35 Marks)

Q.No.	Question	CO	BL
14	Write a note on lipid metabolism.	5	2
15	Explain briefly, about β -oxidation of fatty acids.	5	2
16	Write about Glycolysis pathway, energetic and significance.	1	2
17	How the hormones regulate blood glucose levels and Diabetes mellitus?	4	4
18	Explain the Electron transport chain.	1	2
19	Explain the urea cycle and its disorders.	5	2
20	Explain the Citric acid pathway.	1	2
21	Describe the production of bile acids and steroid hormones from cholesterol.	3	2
22	Explain therapeutic, diagnostic applications of enzymes and isoenzymes.	2	2

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B.Pharmacy II Semester (PCI) (Main) Examination Jul/Aug 2024

Subject & Code: COMPUTER APPLICATIONS IN PHARMACY & BP205T.

Time: 2 Hours

Max.Marks: 50

PART- A

Note: Answer any TWO questions

(2 x 10 = 20 Marks)

Q.No.	Question	CO	BL
1	Write the usage of Text Information Management System & CDS in data analysis.	5	3
2	Describe in detail about the softwares used in pharmacokinetics and mathematical model drug design.	3	4
3	Add a note on Pharmacy Drug database and Web Servers.	2	5

PART B

Note: Answer any SIX questions

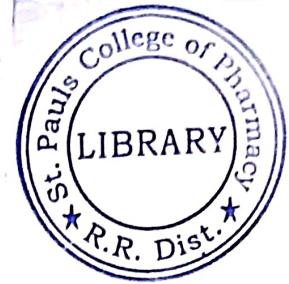
(6 x 5 = 30 Marks)

Q.No.	Question	CO	BL
4	Give outline on Two's complement method in number system.	1	1
5	Write a note on MYSQL	1	3
6	What are the process specifications in Information system?	2	4
7	Describe in detail about mobile technology and adherence monitoring.	3	2
8	Give brief introduction to HTML.	2	3
9	List out the applications of computers in Pharmacy.	3	1
10	Discuss in brief about objectives of Bioinformatics.	4	5
11	Explain about Patient Information system.	3	4

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B.Pharmacy II Semester (PCI) (Main) Examination Jul/Aug 2024

Subject & Code: Pathophysiology & BP204T

Time: 3 Hours

Max. Marks: 75

PART- A

Note: Answer ALL questions

(10 x 2 = 20 Marks)

Q.No.	Question	CO	BL
1	Explain the pattern of Cell Death	1	2
2	Define Anemia. Differentiate different types of anemia	3	4
3	Explain the term Transudate and Exudate	1	2
4	Investigate the causative organism of Syphilis and Gonorrhea	6	5
5	Explain the causes of Meningitis	4	2
6	Define hepatitis. Explain signs and symptoms of Hepatitis-B	5	1
7	Describe Myocardial infection in brief	2	4
8	Evaluate the signs and symptoms of Parkinsonism	4	5
9	Define the terms: a. Cell swelling b. Calcification	1	1
10	Illustrate the complications of Diabetes	3	3

PART B

Note: Answer any TWO questions

(2 x 10 = 20 Marks)

Q.No.	Question	CO	BL
11	Explain the mechanism of Acute Inflammation	1	2
12	Define Hypertension. Discuss Etiology and Pathophysiology of Hypertension	2	1
13	Classify Cancer and explain etiopathogenesis of Cancer	5	2

PART C

Note: Answer any SEVEN questions

(7 x 5 = 35 Marks)

Q.No.	Question	CO	BL
14	Explain in brief about basic principles of Wound healing	1	2
15	Describe the pathogenesis of Gouty Arthritis	5	2
16	Differentiate Atherosclerosis and Arteriosclerosis. Explain in brief about pathogenesis of Atherosclerosis	2	4
17	Discuss etiopathogenesis of Asthma	2	2
18	Outline Chemical Mediators of Inflammation. Explain the role of Histamine in brief	1	4
19	Discuss pathogenesis of Depression	4	2
20	Explain Pathogenesis of Inflammatory bowel disease	4	1
21	Estimate the etiopathogenesis of Jaundice	5	5
22	Discuss pathogenesis of Hypothyroidism	3	2

Code: B082422



B. Pharmacy II Semester (PCI) (Main) Examination Jul/Aug 2024

Subject & Code: Pharmaceutical Organic Chemistry-I & BP202T

Time: 3 Hours

Max Marks: 75

PART-A

Note: Answer ALL Questions

(10x2= 20 Marks)

Q. No	Question	CO	BL
1	Write the IUPAC name and structure of Isocaproic acid.	1	1
2	Write the functional isomer of Ethoxyethane and Ethylethanoate.	2	2
3	Write the structure and uses of Benzaldehyde and Chloroform.	1	1
4	What is Baeyer's test? Give its significance.	5	2
5	Explain SP ² hybridization in alkenes.	3	1
6	Write the metamer of a) 2 Hexanone b) Propoxy Ethane	2	2
7	Write the structure and IUPAC name of the following reaction 2(1Chloropropane) + 2(Sodium metal) + dry ether $\xrightarrow{\hspace{2cm}}$	3	3
8	Write the structure and IUPAC name of the following reaction 2-Methyl 2-Butene + Diborane + Hydrogen peroxide $\xrightarrow{\hspace{2cm}}$	3	3
9	Arrange the following compounds in the decreasing order of their basicity and give reason. a) Ammonia b) Trimethylamine c) Ethylamine d) Dimethylamine	4	5
10	Arrange the following compounds in the increasing order of their stability and give reason. a) 2-Methyl 2-Butene b) 2,3-Dimethyl 2-Butene c) 1-Butene d) 2-Butene	4	4

PART B

Note: Answer any TWO Questions

(2x10= 20 Marks)

Q. No	Question	CO	BL
11	What are the characteristic reactions of haloalkanes? Explain their mechanism, stereochemistry with an example each. Mention the factors affecting these reactions.	3	2
12	What happens when 2,4-Hexadiene is treated with Hydrogen bromide gas in the a) Presence of peroxides b) Absence of peroxides. Explain the mechanism in detail. Mention the structure of the major product formed with its IUPAC name. State the rules governing the above two reactions.	3	2
13	Explain in detail a) Cannizzaro reaction b) Basicity of amines and effect of substituents on basicity	6 4	1 2

PART C

Note: Answer any SEVEN Questions

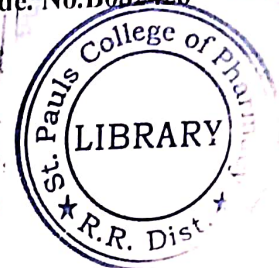
(7x5= 35 Marks)

Q. No	Question	CO	BL
14	Explain electromeric effect.	4	2
15	Write short notes on Perkin condensation.	6	1
16	What are the qualitative tests for carbonyl compounds?	5	2
17	Explain the stability of Free radicals.	4	2
18	Write the IUPAC system of nomenclature of carboxylic acids.	1	1
19	Write the Kolbe's electrolysis for the preparations of alkanes and alkynes.	3	1
20	Explain the Hinsberg method of separation of amines.	5	2
21	Write short notes on Ozonolysis of Alkenes and alkynes.	5	3
22	Write the structure and uses of a) Glycerol b) Cinnamaldehyde	1	1

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B.Pharmacy II Semester (PCI) (Main) Examination Jul/Aug 2024

Subject & Code: Environmental Sciences & BP206T

Time: 2 Hours

Max.Marks: 50

PART- A

Note: Answer any TWO questions

(2 x 10 = 20 Marks)

Q.No.	Question	CO	BL
1	Explain the Forest Resources & Assess the role of an Individual in conservation of Natural resources	2	5
2	Categorize the Natural resources and Differentiate between the Renewable and Non renewable resources	1	4
3	Out list the concept, structure and functions of Ecosystem. Briefly explain any two ecosystems.	3	4

PART B

Note: Answer any SIX questions

(6 x 5= 30 Marks)

Q.No.	Question	CO	BL
4	Explain the mineral resources & the health problems due to the mining of minerals	2	2
5	Describe the various grass land ecosystems.	3	2
6	Define Air Pollution & Present various reasons for the Air Pollution	4	4
7	Outline the water Resources & conclude conservation of water	2	5
8	Examine the reasons for soil pollution and its impact on the health	5	4
9	Illustrate a food chain and Design a food web with examples.	3	6
10	Describe aquatic ecosystem & it's beneficial to mankind?	3	2
11	Simplify a note on Deforestation	2	5
