



हिमालयन भेषजी विज्ञान स्कूल

स्वामी राम हिमालयन विश्वविद्यालय की एक शैक्षणिक इकाई

Himalayan School of Pharmaceutical Sciences

A Constituent Academic Unit of Swami Rama Himalayan University



Roll No. _____

Date: _____

B. Pharm. IInd Semester

Sessional Theory Examination (2025)

Subject Code: BP202T

Subject Name: Pharmaceutical Organic Chemistry I

Time: 1.5 Hours

Total Marks: 30

Part	Q. No		Marks	CO	bl
A		Attempt all questions	10		
	1.	Aromatic compounds must have _____ electrons.	1	CO1	K3
	2.	What are heteroaromatics?	1	CO1	K3
	3.	Explain isomerism.	1	CO1	K3
	4.	Enlist the root name according to the IUPAC nomenclature.	1	CO1	K3
	5.	Give the naming (as per IUPAC) of chain isomers.	1	CO1	K3
	6.	Alkenes give addition reaction (true/false)	1	CO2	K3
	7.	Which elimination reactions have cationic intermediate? (E1 and E2)	1	CO2	K3
	8.	What is Saytzeff rule?	1	CO2	K3
	9.	Why conjugated alkenes are more stable than the single alkene	1	CO2	K3
	10.	Which elimination reactions is one step reaction? (E1 and E2)	1	CO2	K3
B		Attempt any one question	10		
	1.	Illustrate the classification of organic compounds.	10	CO1	K3
	2.	Explain the basic rules of IUPAC.	10	CO1	K3
C		Attempt any two questions	10		
	1.	Differentiate E1 and E2.	5	CO2	K3
	2.	Differentiate Markovnikov and anti-Markovnikov rule.	5	CO2	K3
	3.	Explain the factors which modulate the reactivity of secondary halides for the elimination reaction.	5	CO2	K3



Roll No. _____

Date: _____

B. Pharm. — IInd Semester
First Sessional Theory Examination (2025)

Subject Code: BP203T

Subject Name: Biochemistry

Time: 1.5 Hours

Total Marks: 30

Part	Q. No		Marks	CO	BL
A		Attempt all questions	10 (1*10)		
	1.	How many ATP molecules are produced in glycolysis?		2	1
	2.	What is an enzyme?		5	1
	3.	Define Gibbs Free energy and its relation with Enthalpy and Entropy		1	4
	4.	What is an isoenzyme?		5	1
	5.	Define Biomolecules.		1	1
	6.	Give one example of a competitive enzyme inhibitor.		5	1
	7.	What is the primary function of glycogen?		5	1
	8.	Define Bioenergetics.		1	1
	9.	Define Redox Potential.		1	1
	10.	Where does the citric acid cycle take place?		2	1
B		Attempt any one question	10 (10*1)		
	1.	Describe the glycolysis pathway in detail, including energetics and regulation. OR Explain the citric acid cycle with steps, energy yield, and significance.		2	2
	2.	Describe glycogen metabolism, including glycogenesis and glycogenolysis, and discuss glycogen storage diseases. OR Explain gluconeogenesis, its regulation, and significance		2	2
C		Attempt any two questions	10 (5*2)		
	1.	Discuss the classification of carbohydrates with examples		1	4
	2.	Discuss the regulation of enzymes through feedback inhibition, allosteric regulation, and covalent modification.		5	3
	3.	Explain the hormonal regulation of blood glucose level		2	4

CO- Course Outcome

BL- Bloom Taxonomy



Roll No. _____

Date: 27-03-2025

B. Pharm. – II Semester

First Sessional Theory Examination (2025)

Subject Code: BP205T

Subject Name: Computer Applications in Pharmacy

Time: 1.5 Hour

Total Marks: 30

S. No.	Question	Marks	CO	BL
Attempt any One out of two				
1	What is HTML, XML and CSS? Explain different tags used in HTML with examples.	10	CO 2	U
2	Convert the following numbers: Decimal to Binary- (52) ₁₀ = ? Octal to Binary- (234) ₈ = ? Hexadecimal to Binary- (49) ₁₆ = ? Binary to Octal- (101100) ₂ = ?	10	CO 1	A
Attempt any Four out of six				
1	Solve Two's Complement by Direct and Indirect Method. 100110	5	CO 1	A
2	What is information gathering and the process life cycle?	5	CO 2	U
	Convert Hexadecimal number to Binary number. (B4D) ₁₆ (A5C) ₁₆	5	CO 1	A
4	Do Binary Addition and Multiplication of the following numbers. 1110 + 1100 0110 * 0011	5	CO 1	A
5	How many headings tags are used in HTML? Mention which heading tag is highest and and smallest? and <i> tag is used for which purpose?	5	CO 2	U
6	What is the base number of Binary, Hexadecimal, Octal and Decimal numbers? What is the Binary number of 2? What will be the One's complement of the following number? 1001111	5	CO 1	U, A

BL – Bloom's Taxonomy Levels (1- Remembering, 2- Understanding, 3 – Applying, 4 – Analyzing, 5 –Evaluating, 6 – Creating)



Roll No. _____

Date: _____

B. Pharm. – 2nd Semester

First Sessional Theory Examination (2025)

Subject Code: BP206T

Subject Name: Environmental Sciences

Time: 1.5 Hour

Total Marks: 30

S. No.	Question	Marks	CO	BL
Attempt any One out of two				
1	Describe about the segments of environment.	10	CO1	2
2	What are biogeochemical cycles? Explain nitrogen cycle with diagram.	10	CO3	2
Attempt any Four out of six				
1	Brief the multidisciplinary nature of environmental studies.	5	CO1	2
2	Write short note on need of public awareness about the environment.	5	CO1	2
3	Explain the structure of ecosystem.	5	CO3	2
4	Write any five functions of an ecosystem.	5	CO3	1
5	Explain the concept of food chain.	5	CO3	2
6	Write any five characteristics of forest ecosystem.	5	CO3	2

CO – Course Outcomes, BL – Bloom's Level



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Date: _____

B. Pharm. First Year – First Semester
First Sessional Theory Examination (2025)

Subject Code: BP201T

Subject Name: Human Anatomy and Physiology – II- Theory

Time: 1.5 Hours

Total Marks: 30

Note: Support your answers with neat and well labelled diagrams.

Part	Q. No		Marks	CO	BL
A		Attempt all questions	10		
	1.	The gaps between two adjacent myelin sheaths are called a) Nodes of Ranvier b) Axon terminal c) Synaptic knob d) Schwan Cell	1	1	1
	2.	Which of the following is not associated with ANS? a) Sympathetic Neural System b) Parasympathetic Neural System c) Somatic Neural system d) Both B and C	1	1	2
	3.	Multipolar Neuron are a) One Axon and Two or More Dendrites b) One dendrite and Two or more axon c) Multiple Dendrites and no axon d) No dendrites and multiple axon	1	1	2
	4.	The somatic neural system relays impulses a) From Skeleton muscle to CNS b) From CNS to Skeletal Muscles c) From Visceral muscle to CNS d) From CNS to Visceral Muscle	1	1	4
	5.	Nissl's granules are not found in a) Dendrites b) Cell body c) Axon d) Both a) and c)	1	1	1
	6.	The hormone that stimulates the stomach to secrete gastric juices is a) Gastrin b) Renin c) Enterokinase d) Enterogastrone	1	2	1
	7.	Which one of the following pairs of food components in humans reaches the stomach totally undigested? a) Protein and Starch b) Starch and Fat c) Fat and Cellulose d) Starch and Cellulose	1	2	4
	8.	If for some reason Parietal Cells are non-functional, this will adversely effect a) Digestion of Lipids b) Digestion of Proteins c) Digestion of Carbohydrates d) All of the above	1	2	3
	9.	Which part of Alimentary canal receives bile? a) Stomach b) Oesophagus c) Small Intestine c) Large Intestine	1	2	2
	10.	Saliva helps in digestion of a) Fiber b) Starch c) Proteins d) Fats	1	2	1
B		Attempt any one question	10		
	1.	What are the different parts of Human Brain. Discuss anatomy and physiology of cerebrum.		1	1,2
	2.	Outline various parts of Digestive System. Discuss the physiology of digestion in detail.		2	1,2
C		Attempt any two questions	10		
	1.	Describe Cerebrospinal fluid and its circulation.		1	1,2
	2.	Discuss the mechanism of Neurohumoral Transmission in CNS.		1	1,2
	3.	Discuss Synthesis, secretion and regulation of acid secretion in stomach.		2	1,2



Roll No. _____

Date: _____

B. Pharm. – 1st Semester
Sessional Theory Examination (2024)

Subject Code: BP 204T

Subject Name: Pathophysiology

Time: 1.5 Hours

Total Marks:30

Part	Q. No		Marks	CO	BL
A		Attempt all questions	10		
	1.	Define Homeostasis	1	2	2
	2.	Define Hypertrophy	1	2	2
	3.	Define Calcification	1	2	2
	4.	An ischemic stroke occurs _____. a. When an artery in the brain becomes blocked b. When bleeding start from blood vessels c. Due to infection d. All of above	1	3	1,2
	5.	Full form of AIDS _____	1	5	1
	6.	The normal BP is _____ systolic & _____ diastolic. a. 120 mmHg, 80 mmHg b. 140 mmHg, 100 mmHg c. 100 mmHg, 80 mmHg d. 100 mmHg, 60 mmHg	1	3	2
	7.	Which of the following is physical agent of cell injury? a. Hot Surface b. Dil. HCl c. Viruses d. Hypoxia	1	2	2
	8.	Adaptation means reversible change in _____. a. Size of cell b. Functions of cell c. Phenotype of cell d. All of the above	1	2	2
	9.	Atherosclerotic narrowing of _____ leads angina. a. Coronary Artery b. Coronary Vein c. Aorta d. All of Above	1	3	1,2
	10.	Cell swelling is a result of a. Decreased activity of sodium pump b. Increased glycogen production c. Decreased protein synthesis d. Decreased lactic acid secretion	1	1	2
B		Attempt any one question	10		
	1.	Give detail about etiology, pathogenesis, sign and symptoms of Gonorrhea Or AIDS.	10	5	1
	2.	Give detail about etiology, pathogenesis, sign and symptoms Urinary tract infections. Or Give detail about atherosclerosis.	10	5	1,2
C		Attempt any two questions	10		
	1.	Give in detail about Adaptive changes.	5	2	1,2
	2.	Give detail on congestive heart failure Or Gout.	5	3	1
	3.	Give detail about etiology, pathogenesis, sign and symptoms of Asthma Or Thyroid	5	1	1,2