Graphic Era HILL UNIVERSITY
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University under section 2(f) of UGC Act, 1956

Sessional II (Even) Semester Examination May 2025

Roll no.....

Name of the Course: B.Pharma
Semester: 2nd
Name of the Paper: Biochemistry
Paper Code: BP-203T
Time: 1.5 hour **Maximum Marks: 30**

Note:
(i) This question paper contains three sections
(ii) All the sections are compulsory
(iii) All questions should cover COs of the course as per syllabus coverage.

Section-A

MULTIPLE CHOICE QUESTION **10 X 1 = 10 MARKS**

S.N	CONTENTS	Cos
1.	What is the primary product of beta-oxidation of fatty acids? a) Acetyl-CoA b) NADH c) FADH2 d) ATP	CO3
2.	Which amino acid is the precursor for the synthesis of serotonin? a) Tryptophan b) Tyrosine c) Phenylalanine d) Histidine	
3.	What is the end product of the breakdown of amino acids in the liver? a) Urea b) Ammonia c) Creatinine d) Uric acid	
4.	Which enzyme is responsible for the transamination reaction in amino acid metabolism? a) Transaminase b) Deaminase c) Aminotransferase d) Decarboxylase	
5.	Hydroxylation of phenylalanine requires all of the following except: a) Phenylalanine hydroxylase b) Tetrahydrobiopterin c) NADH d) Molecular oxygen	
6.	What is the name of the region of DNA where transcription begins? a) Promoter b) Enhancer c) Operator d) Terminator	CO4
7.	Which enzyme is responsible for unwinding the DNA double helix during replication? a) Helicase b) Primase c) Polymerase	

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	d) Ligase	
8.	Which of the following is a characteristic feature of translation? a) Synthesis of DNA from RNA b) Synthesis of RNA from DNA c) Synthesis of protein from RNA d) Synthesis of DNA from protein	
9.	Which of the following types of RNA is involved in protein synthesis? a) Messenger RNA (mRNA) b) Transfer RNA (tRNA) c) Ribosomal RNA (rRNA) d) All of the above	
10.	What is the name of the process by which introns are removed from pre-mRNA? a) Splicing b) Cleavage c) Polyadenylation d) Capping	

Section B

Short Questions: Attempt any two **2x5 = 10**

SN	QUESTIONS	CO's
1.	Write down the general reactions of amino acid metabolism.	CO3
2.	Describe the biosynthesis of purine nucleotides.	CO4
3.	Draw and explain urea cycle.	CO3

Section C

Long questions: Attempt any one **1x10 = 10**

SN	QUESTIONS	CO's
1	Write about the catabolism of phenylalanine and tyrosine along with their metabolic disorders in detail.	CO3
2	Describe DNA replication and protein synthesis in detail.	CO4