

MSc Sem.-1 Examination

404

Toxicology

February-2025

Time : 2-30 Hours]

[Max. Marks : 70

Q1A	Write down the functions of the plasma membrane.	7 Marks
Q1B	Write down about different types of membrane transport in detail	7 Marks
OR		
Q1A	Describe the structure of nucleus in detail.	7 Marks
Q1B	Write down the functions of intermediate filaments?	7 Marks
OR		
Q2A	Describe all the enzymes of electron transport chain.	7 Marks
Q2B	State all properties of hormones and Elucidate mechanism of working of lipid hormone along with diagrammatic representation.	7 Marks
OR		
Q2A	Write in details regarding major Kidney function tests.	7 Marks
Q2B	Describe various functions of lipids. Also classify & explain lipids on the basis of their densities.	7 Marks
OR		
Q3A	Write a detailed note on constituents and functions of plasma.	7 Marks
Q3B	List out the types of donors. Write a brief note on methods for screening of donors.	7 Marks
OR		
Q3A	Explain myelopoiesis in detail.	7 Marks
Q3B	Write a note on types of leukaemia and its diagnosis in detail.	7 Marks
OR		
Q4A	Describe different types of DNA damage.	7 Marks
Q4B	What is a chromosomal organization? Why it is important? How it occurs?	7 Marks
OR		
Q4A	Give the difference between homologous recombination and non-homologous end joining (NHEG)?	7 Marks
Q4B	Write a note on 3 major types of RNA. Describe its structure and functions.	7 Marks
Q5	Answer the following questions (Any Seven)	14 Marks
I	What is osmosis? What happens with Red Blood Cells if they are kept in hypotonic solution?	2 Marks
II	How many chromosomes each human somatic cell and gametes contains?	2 Marks
III	List out the functions of mitochondria.	2 Marks
IV	Why uracil is absent in DNA and present in RNA only? Explain.	2 Marks
V	Describe how blood pressure and salt intake are related to each other.	2 Marks
VI	Define body water and give its classification.	2 Marks
VII	Define: Hematopoietic stem cell, Progenitor cell	2 Marks
VII	Write down any two types of anaemia and its causes.	2 Marks
IX	What is PCV? Which condition show increased PCV?	2 Marks
X	What is siRNA, miRNA, and snRNA?	2 Marks
XI	What is hyperchromic effect?	2 Marks
XII	Write a role of DNA helicase and primase.	2 Marks

BEST OF LUCK