1604N188

Candidate's Seat No :_____

M.Sc Semester-2 Examination

407

Toxicology

April-2024

Time : 2-30 Hours] **[Max. Marks : 70**

Q.1A	WRITE IN DETAIL ABOUT CHROMOSOMAL ORGANIZATION.	7
Q.1B	EXPLAIN GRIFFTH; HERSHEY& CHASE EXPERIMENT.	7
	OR	
Q.1A	WRITE IN DETAIL ABOUT EUKARYOTIC TRANSCRIPTION	7
Q.1B	WRITE IN DETAIL ABOUT POST-TRANSCRIPTION MODIFICATION	7
Q.2 A	ILLUSTRATE DIAGRAMMATICALLY AND EXPLAIN IN DETAIL ALL THE THREE BASIC METHODOLOGIES OF PRODUCING TRANSGENIC MICE.	7
Q.2 B	DISCUSS ALL STEPS OF MOLECULAR CLONING IN SEQUENTIAL MANNER.	7
	OR	
Q.2 A	WRITE IN DETAILS CONCERN TO VARIOUS SECOND AND THIRD GENERATION SEQUENCING TECHNIQUES.	7
Q.2 B	DESCRIBE IN DETAIL CONCERNING RFLP, AFLP AND RAPD MOLECULAR MARKERS.	7
Q.3 A	EXPLAIN IN DETAIL ABOUT TYPES OF MICROARRAYS ALONG WITH THEIR STEPS AND RESPECTIVE DIAGRAMS.	7
Q.3 B	WRITE SHORT NOTES ON THE FOLLOWING: 1. PCR OPTIMIZATION. 2. PCR APPLICATIONS 3. ANY THREE TYPES OF PCR.	7
	OR	
Q.3 A	DISCUSS IN DETAIL REGARDING Q-PCR AND ITS TYPES.	7
Q.3 B	EXPLAIN IN DETAIL ABOUT TYPES OF MICROARRAYS ALONG WITH THEIR STEPS AND RESPECTIVE DIAGRAMS.	7
Q.4 A	EXPLAIN ABOUT RECEPTOR-LIGAND BINDING.	7
Q.4 B	WRITE ABOUT INTRACELLULAR& CELL SURFACE RECEPTORS WITH EXAMPLES.	7
	OR	
Q.4 A	EXPLAIN RTK PATHWAY.	7
Q.4 B	DEFINE APOPTOSIS & EXPLAIN EXTRINSIC DEATH PATHWAY.	7
Q.5	ANSWER THE FOLLOWING SHORT QUESTIONS (ANY 7)	14

P.T.O

N188 – 2

1	WHAT IS PARACRINE SIGNALLING? WRITE EXAMPLES.	
2	WHICH PROTEIN FORMS GAP JUNCTIONS?	
3	WHAT ARE SECONDARY MESSENGERS? GIVE EXAMPLES.	
4	WHAT ARE CASPASES?	
5	STATE THE DIFFERENCE BETWEEN NUCLEOSIDE AND NUCLEOTIDE.	
6	WHAT IS DISTANCE BETWEEN 2 BASE PAIR IN B FORM OF DNA?	
7	WHAT IS CONFORMATION OF GLYCOSYL BOND IN B & A FORM OF DNA?	
8	GIVE MICROARRAY: ADVANTAGES AND DISADVANTAGES.	
9	WRITE IN BRIEF ABOUT VECTOR TYPES AND CHARACTERISTICS.	
10	GIVE THE TABULAR FORM FOR ENZYMES USED IN RECOMBINANT DNA TECHNOLOGY WITH THEIR FUNCTIONS.	
11	GIVE CLASSIFICATION OF MOLECULAR MARKERS BASED ON MODE OF DETECTION.	
12	GIVE APPLICATION OF MOLECULAR MARKERS.	

—X—