

Template 1

Name. _____		Printed Pages:01		
Student Admn. No.: _____				
School of Biomedical Sciences Summer Term Examination – July - August 2024 [Programme: B.Sc. Medical Biotechnology] [Semester: 1] [Batch: 2020-23]				
Course Title: Molecular Diagnostic Course Code: BBBMBT1006		Max Marks: 100 Time: 3 Hrs.		
Instructions:	1. All questions are compulsory. 2. Assume missing data suitably, if any.			
		K Level	COs	Marks
SECTION-A (15 Marks)		5 Marks each		
1.	Compare the similarities and differences between ELISA and RIA.	K2	CO3	5
2.	Discuss the role of ethics in molecular diagnostic.	K2	CO4	5
3.	Identify the advantages of PCR-based techniques for diagnosis.	K2	CO2	5
SECTION-B (40 Marks)		10 Marks each		
4.	Analyze the effects of recent advancements in disease diagnostics.	K4	CO2	10
5.	Explain the working principle of FISH with suitable diagram.	K3	CO3	10
6.	Discuss the process of RT-PCR and how it is used in diagnostic.	K4	CO4	10
7.	Elaborate the interactions between host and pathogen in a disease process.	K3	CO1	10
SECTION-C (45 Marks)		15 Marks each		
8.	Evaluate the methods utilized for identification of DNA/genetic biomarkers.	K5	CO2	15
9.	Discuss the challenges and opportunities involved in the genomics of host-pathogen interactions.	K5	CO1	15
10	Evaluate with example the genetic factors involved in development and progression of a disease.	K5	CO4	15

Course outcomes: Students will be able to		
COs	K level	
CO1	K2	Understand the host-pathogen interaction and learn the clinical pathology of diseases
CO2	K2,K3	Understand the significance of biomarkers and biochemical based diagnosis of infectious and non-infectious diseases
CO3	K2,K3	Understand the various types of diagnosis based on antibodies, DNA and protein and their role in translation research
CO4	K4,K5, K6	Apply the knowledge of disease pathogenesis and diagnostic mechanism in molecular therapeutics

- Note: 1. Q1 to Q4 from K1/K2.**
2. Q5 to Q8 from K3/K4.
3. Q9 to Q10 from highest knowledge level.