

										PITHAPUR RAJAH'S GOVERNMENT COLLEGE (AUTONOMOUS): KAKINADA									
III SEMESTER END EXAMINATIONS MARCH-2023																			
CLASS: B.SC.,										SEMESTER					3				
SUBJECT : MICROBIOLOGY										DATE & SESSION					15.04.2023 AN				
PAPER CODE: 3209																			
MOLECULAR BIOLOGY AND MICROBIAL GENETICS										Max Marks					50				
REG NO										Time:					2 HRS				

PART-A

Answer any three questions by attempting at least one question in each section

Section -A

3 x 10=30M

1. Explain the Watson and Crick model of DNA with a neat labeled diagram.
2. Explain DNA as a genetic material with experimental proof.
3. Write an essay on the Lactose operon concept.

Section -B

4. What are mutations? Write different types of mutations.
5. What are the application of genetic engineering in industry, agriculture and medicine?
6. Define Amplification. Describe in detail about the PCR with neat labeled diagrams.

PART-B

Answer any FOUR of the following questions.

4x 5=20M

7. Chargaff's rule
8. Conservative replication
9. Conjugation in bacteria
10. Genetic code
11. Plasmid vectors
12. cDNA Libraries.
