| SEMESTER | IV | QP CODE | 23MIBO43 |
|---|---|---|---|

**P.R. GOVERNMENT COLLEGE (AUTONOMOUS), KAKINADA**
**SEM END EXAMINATIONS APRIL -2025**
**II B.SC: MICROBIOLOGY: R DNA TECHNOLOGY BIOINFORMATICS & BIOSTATISTICS**
**TIME: 2 HRS**

| DATE& SESSION | 11.04.2025 & AN | REG NO | 2 | 3 | 2 | 4 | 1 | C | 2 | 22 | MAX MARKS | 50 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

## SECTION-I1

**Answer any THREE of the following questions. And attempt one question from Each section part Each question carries TEN marks** **3X10=30Marks**

### PART-A

1. Explain principles of genetic engineering.
2. Discuss application of genetic engineering in medicine and agriculture.
3. Write Sanger's method for DNA sequencing.

### PART-B

4. Write ant three DNA major DNA sequence databases.
5. Discuss the measurement of central tendency: MEAN, MEDIAN and MODE
6. Give a note on protein data bases.

## SECTION-II

**Answer any FOUR of the following questions. Each question carries FIVE marks**

**4 X 5=20Marks**

7. Restriction endo nucleases.
8. C-DNA libraries.
9. Patents.
10. NCBI.
11. BLAST.
12. Standard deviation.
13. Copy rights.