

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS),VELLORE-1.

SUB: ADVANCE IN MOLECULAR GENETICS (15CPMB1D)

UNIT-I SECTION -A 6-Marks

1. Detail in Competent cells?
2. Define Transduction? Explain in types?
3. Write in detail about Conjugation?
4. Explain in Triparental mating process?
5. Write about Self Transmissible and Mobilisable plasmids?

SECTION -B 15-Marks

1. Write in detail on Griffith, Avery, Hershey & Chase Experiments

UNIT-II SECTION-A 6-Marks

1. Describe the Col E Plasmids?
2. Describe the Psc101 Plasmids?

SECTION-B 15-Marks

1. Explain in detail about F-1 Plasmids?
2. Describe in detail Ti-Plasmid

UNIT-III SECTION-C 6-Marks

1. Describe the operon concept?
2. Describe the DNA Methylation process?
3. Explain the Transposition. ?
4. Define the genetic analysis of mutants?

SECTION-A 15-Marks

1. Explain in detail the gene regulations?
2. Explain the Environment regulation of gene expression?

UNIT-IV SECTION-A 6-Marks

1. Explain genetic mapping of *E.coli* and yeast

15 Marks

1. Explain in detail about site directed mutagenesis and its types
2. Explain the DNA sequencing analysis
 - Maxam and gilbert method
 - Sanger's method
 - Automated DNA sequencing

UNIT-V SECTION-A 6-Marks

1. Explain the Antisense RNA
2. Detail about Epigenetics

15-Marks

1. Define post translational modification
2. Explain the translational control