

Please check whether you have got the right question paper.

- N.B:**
- All** questions are **compulsory**.
 - All questions** carry **equal marks**.
 - Draw neat labeled diagrams wherever necessary.

Q. 1 Describe various non mendelian inheritance. **12**

OR

Q. 1 a. Describe the inheritance pattern in human. **6**

Q. 1 b. Give an account of meiotic cross over mechanism. **6**

Q. 2 Describe the stages in the lytic life cycle of a typical phage. **12**

OR

Q. 2 a. Write a note on Benzer's fine structure of gene in T₄ bacteriophage. **6**

Q. 2 b. Write a note on different types of plasmids. **6**

Q. 3 Describe DNA replication. **12**

OR

Q. 3 a. Write a note on mitochondrial DNA. **6**

Q. 3 b. Describe DNA microarray. **6**

Q. 4 Write a note on various ways of identifying disease genes. **12**

OR

Q. 4 a. Enumerate on control of development in drosophila. **6**

Q. 4 b. Describe association studies and linkage disequilibrium. **6**

Q. 5 Write short notes on **ANY THREE**. **12**

- Somatic cell hybridization
- Episome
- rec BC Protein
- Molecular pathology from gene to disease
- Ancestral haplotypes
- RFLP