

Q.1 Answer the following questions. (Any 2) 20 Marks

- A. Explain incomplete dominance with suitable example.
- B. Define genetics and explain its scope and importance.
- C. What is epistasis? Give a detailed account of recessive epistasis.
- D. Describe the pattern of inheritance of blood group and Rh factor in man.

Q.2 Answer the following questions. (Any 2) 20 Marks

- A. Differentiate between human X and Y chromosome. Write note on sex Linked genes.
- B. Explain the inheritance of colour blindness in man.
- C. Explain the structure of eukaryotic chromosome.
- D. Explain sex determination in man.

Q.3 Answer the following questions. (Any 2) 20 Marks

- A. Describe Griffith transformation experiment.
- B. What is DNA replication? Describe the process of DNA replication.
- C. What is gene expression? Describe the regulation of genes with Lac operon.
- D. Describe Avery, Macleod and McCarty's experiment.

Q.4 Write a note on following. (Any 3) 15 Marks

- A. A and B DNA
- B. Function of tRNA
- C. Albinism
- D. Difference between euchromatin and heterochromatin
- E. Difference between homozygous and heterozygous
- F. The symbols used in human pedigree analysis

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