

School of Basic and Applied Sciences

BioScience
ETE - Jun 2023

Time : 3 Hours

Marks : 100

Sem IV - C2UH401T - Genetics and Epigenetics

Your answer should be specific to the question asked

Draw neat labeled diagrams wherever necessary

1. Construct the Mechanism of Sickle cell anemia. K2 CO2 (5)
2. Write the phenotypic ratio of di-hybrid, and tri-hybrid cross. K1 CO1 (5)
3. Recall the incomplete dominance with examples. K1 CO3 (5)
4. Choose the different types of Metabolic disorders in detail. List the different types of Biomarkers involved in Metabolic disorders. K2 CO1 (10)
- 5) Select the main reason for mendel's success. K3 CO6 (10)

OR

- Extend the Mendel's Laws of Principle segregation and Independent assortment. K3 CO5 (10)
6. Apply the structure and function of Plasmid in details. K3 CO2 (10)
 7. Dissect the following points in detail: (A) Genotype, (B) Punnett Square K4 CO3 (10)
 - 8) Spell the multiple alleles with suitable examples of ABO blood groups. K4 CO4 (15)

OR

- Survey the following terms with examples (A) Allele, (B) Homozygous, (C) Phenotype, (D) Genotype, (E) Punnett Square K4 CO1 (15)
9. Inspect the Polygenic Inheritance in details with examples. K4 CO6 (15)
 10. Build the notes on DNA Repair System. K3 CO5 (15)