School of Biological and Life sciences

Department of Biological and Life Sciences
Mid Term Examination

Exam Date: 26 Sep 2023
Time : 90 Minutes
Marks : 50

Sem III - MSDB6001 - Genetics

Your answer should be specific to the question asked
Draw neat labeled diagrams wherever necessary

1)	State Mendel's Law of Independent Assortment.	K2	(2)
2)	If an individual carries one dominant allele and one recessive allele for a trait, what will be their phenotype?	K1	(3)
3)	Provide an example of a genetic disorder caused by a lethal allele.	K2	(4)
4)	Discuss the relationship between epigenetic alterations and various diseases, such as cancer and neurodevelopmental disorders.	K2	(6)
5)	Explain how the ABO blood group system is an example of multiple alleles?	K3	(6)
6)	Describe the process of crossing over during meiosis and its significance.	K3	(9)
7)	Explain the clinical features and symptoms of Prader-Willi syndrome, including its cognitive and behavioral aspects.	K4	(8)
8)	What is the genetic balance theory of sex determination, and what does it propose about the relationship between sex chromosomes and autosomal chromosomes?	K4	(12)

OR

	Discus Mendalism in brief?	K4	(12)