

Roll No.:

SGT UNIVERSITY**END TERM THEORY EXAMINATION JULY - 2022**

Faculty/College of Study:	Agricultural Sciences	Year/Semester:	2nd Semester
Program:	B.Sc. (Hons.) Agriculture	Duration:	03:00 Hrs.
Course/Subject:	Principles of Genetics	Maximum Marks:	60
Course/Subject Code:	17010209 11010201	Batch:	2018 2019

Instructions: -

1. Write Your Roll No. on the Question Paper.
2. Candidate should ensure that they have been provided correct question paper. Complaint(s) in this regard, if any should be made within 15 minutes of the commencement of the exam. No complaint(s) will be entertained thereafter.
3. All Questions are compulsory. Marks are indicated against each question.
4. Illustrate your answer with diagram wherever required.

SECTION-A**(Very Short Answer Type Questions)****Note: All Questions are compulsory: -****[12X1=12]**

S. No.	Question	Marks Allotted
1	Law of segregation	1
2	Linkage	1
3	Test Cross	1
4	Pleiotropy	1
5	Multiple Allele	1
6	Mutation	1
7	Crossing Over	1
8	Recombination frequency	1
9	Genetic code	1
10	Back cross	1
11	DNA replication	1
12	Hardy Weinberg Law	1

SECTION-B
(Short Answer Type Questions)

Note: All Questions are compulsory: -

[4X2=8]

S. No.	Question	Marks Allotted
13	Differentiate between Qualitative and Quantitative traits	2
14	Differentiate between linkage and pleiotropy	2
15	Differentiate between test cross and back cross	2
16	Differentiate between sex limited and sex influenced gene	2

SECTION-C
(Descriptive Answer Type Questions)

Note: All Questions are compulsory: -

[4X4=16]

S. No.	Question	Marks Allotted
17	Define linkage and different types of linkage?	4
18	What is crossing over and factors affecting crossing over?	4
19	Explain multiple factor hypothesis in detail.	4
20	What is mutation and explain in brief different types of mutation?	4

SECTION-D
(Long Answer Type Questions)

Note: All Questions are compulsory: -

[4X6=24]

S. No.	Question	Marks Allotted
21	Enlist different laws of Mendel and explain any one in detail	6
22	What is DNA? Explain in details structure and function of DNA?	6
23	Explain different steps of DNA Replication.	6
24	Explain in detail numerical chromosomal abbreviation.	6