

Roll No.:

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

Faculty/College of Study:	Agricultural Sciences	Year/Semester:	2 nd Semester
Program:	B.Sc. (Hons.) Agriculture	Duration:	03:00 Hrs.
Course/Subject:	Fundamentals of Crop Physiology	Maximum Marks:	50
Course/Subject Code:	11010204	Batch:	2020 & 2021

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	Define crop physiology.	1
2	What is water potential?	1
3	What do you mean by essential mineral nutrients?	1
4	Write the full form of IRGA.	1
5	Name the plant hormone responsible for apical dominance.	1
6	Define plant growth regulators.	1
7	What are unsaturated fatty acids?	1
8	Define glycolysis.	1
9	Name three mobile nutrient elements.	1
10	What do you mean by endosmosis?	1
11	Write the formula to calculate leaf area index.	1
12	Where does the light reactions of photosynthesis occurs in plant cells	1

SECTION-B
(Short Answer Type Questions)

Note: All Questions are compulsory: -

[4X2=8]

S. No.	Question	Marks Allotted
13	Write down the criteria for essentiality of mineral nutrients.	2
14	Write down the various types of transpiration in plants.	2
15	What is importance of stomata present of leaf surface.	2
16	Write a short note on sigmoid growth curve.	2

SECTION-C
(Descriptive Answer Type Questions)

Note: All Questions are compulsory: -

[3X4=12]

S. No.	Question	Marks Allotted
17	Explain the mechanism of stomata opening and closing.	4
18	Write the physiological roles and agricultural of auxins in plants.	4
19	Differentiate between C3 and C4 plants Or Differentiate between aerobic and anaerobic respiration	4

SECTION-D
(Long Answer Type Questions)

Note: All Questions are compulsory: -

[3X6=18]

S. No.	Question	Marks Allotted
20	Draw and Explain the TCA cycle in plants Or Write down the Z scheme of electron transport during light reactions of photosynthesis	6
21	Explain the absorption of water in plants.	6
22	Explain Calvin cycle for fixation of CO ₂ in C ₃ plants.	6