

(i) Printed Pages : 4 Roll No.

(ii) Questions : 9 Sub. Code :

1	7	5	5	0
---	---	---	---	---

Exam. Code :

0	0	0	6
---	---	---	---

B.A./B.Sc. (General) 6th Sem.

(2056)

BOTANY

Paper-A : Plant Physiology-II

Time Allowed : Three Hours] [Maximum Marks : 36

Note :— Attempt 5 questions in all. Question 1 is compulsory and is of 8 marks, comprising 4 MCQ & 4 Fill in the blanks. Attempt 4 more questions selecting **one** each from units I to IV carrying 7 marks each.

1. (A) Tick the correct answer : 4

(1) Which option is correct in Cyclic Photo Phosphorylation?

- (a) It synthesizes only ATP
- (b) Oxygen is not evolved
- (c) It requires only PS I
- (d) All

(2) Most of the enzymes of TCA cycle are present in :

- (a) Cytoplasm
- (b) Mitochondrial Matrix
- (c) Outer chamber of Mitochondria
- (d) SPM of Mitochondria

- (3) Which is used to kill broad-leaved dicots, mostly weeds?
- (a) 2,4,5-T
 - (b) NAA
 - (c) 2,4-D
 - (d) Abscissic Acid
- (4) Bomato is a somatic hybrid between :
- (a) Brinjal & Potato
 - (b) Brinjal & Tomato
 - (c) Brinjal & Capsicum
 - (d) Brinjal & Chilly

(B) Fill in the Blanks :

4

- (1) C₄ plants are more efficient than C₃ plants due to absence of _____.
- (2) How many NADH₂ molecules are formed during Glycolysis _____.
- (3) In Growth curve, maximum rate of growth is achieved during _____.
- (4) A Cell with single nucleus & two cytoplasms is called _____.

UNIT-I

2. (a) Describe the process of Non Cyclic Photophosphorylation. 5
- (b) How it differs from Cyclic one? 2

3. Write short notes on :
- (a) Trap or Reaction centre of PS I & PS II 2
 - (b) Photolysis of Water 2
 - (c) 6 differences between C3 & C4 Cycle/Plants. 3

UNIT-II

4. (a) What is RQ? Give its various values with the change in substrate & mode in respiration. Justify values with equations. 5
- (b) Write the significance of RQ. 2
5. Write short notes on :
- (a) Respiration is a slow combustion. Justify by giving 2 reasons. 2
 - (b) Effect of temperature on Respiration. 2
 - (c) ATP & its structure. 3

UNIT-III

6. (a) Write an essay on the Photoperiodism, its discovery & its types. 5
- (b) What is Photoperiodic Induction? 2
7. Write short notes on :
- (a) Apical dominance 2
 - (b) Phase of Elongation 2
 - (c) Phototaxis movement in Chloroplasts of mesophyll cells. 3

UNIT-IV

8. (a) Define Tissue Culture. Describe various Applications of Tissue culture. 5
- (b) Write a note on Nutrient medium. 2
9. Write short notes on :
- (a) Cellular Totipotency 2
- (b) Explant 2
- (c) Protoplast Culture. 3