

(i) Printed Pages : 3

Roll No.

(ii) Questions : 9

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Exam. Code :

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

(2053)

BOTANY

Paper-A : Plant Physiology-II

Time Allowed : Three Hours] [Maximum Marks : 36

Note :— Attempt **five** questions in all, including Question No. 1 which is compulsory. Select **one** question from each Unit. Draw diagrams where required.

1. Multiple choice questions (MCQ) :

(a) Who noted the effect of limiting factor first ?

(i) Kreb

(ii) Calvin

(iii) Ruben

(iv) Blackman

(b) Oxidative Phosphorylation occurs at/in :

(i) Thylakoid

(ii) Fifth complex of electron transport

(iii) Photo System

(iv) Outer mitochondrial chamber

(c) Phototropism is a type of :

- (i) Physical movement
- (ii) Movement of Locomotion
- (iii) Autonomic movement of curvature
- (iv) Paratonic movement of curvature

(d) Haploid plants are formed by :

- (i) Anther Culture
 - (ii) Root tip
 - (iii) Shoot tip
 - (iv) Embryo Culture
- $4 \times 1 = 4$

Fill in the blanks :

- (e) Light dependent intake of O_2 and release of CO_2 in chloroplast is called _____.
 - (f) In which cycle, enzyme Aldolase is present _____.
 - (g) Formation of seedless fruits without fertilization is _____.
 - (h) Thigmotropism is tropic movement due to stimulus of _____.
- $4 \times 1 = 4$

UNIT—I

2. (a) What are Photosystems ? Describe their types and functions.

(b) Write the correct/rectified equation of Photosynthesis. 5+2

3. Write notes on :

(a) Photolysis of water

(b) Kranz Anatomy.

(c) Any three significance of Photosynthesis.

$2+2+3$

UNIT—II

4. Describe the process of Terminal oxidation and its significance. 7
5. Write short notes on :
- (a) ATP
 - (b) RQ and its values
 - (c) Anaerobic respiration. 2+3+2

UNIT—III

6. (a) What is Photoperiodism ? Describe various types of plants on Photo periodic Response. 5
- (b) Write a note on Florigen. 2
7. Write briefly :
- (a) Apical Dominance
 - (b) Bolting
 - (c) Measurement of Growth. 2+2+3

UNIT—IV

8. What is Tissue Culture ? Describe its various aspects like requirements and process. 7
9. Write notes on :
- (a) Applications of Tissue Culture
 - (b) Applications of Bio-Technology. 4+3