

**TDC Odd Semester Exam., 2020
held in July, 2021**

BOTANY

(Pass)

(5th Semester)

Course No. : BOTP-501

(Plant Physiology and Biochemistry)

Full Marks : 35

Pass Marks : 12

Time : 2 hours

*The figures in the margin indicate full marks
for the questions*

Answer **five** questions, selecting **one** from each Unit

UNIT—I

1. (a) Write about physical properties of water. 3
- (b) Discuss the phenomenon of transpiration in plants. 4

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(Turn Over)

2. (a) With the help of suitable illustrations, discuss the mechanism of phloem transport in plant. 5
- (b) Define source and sink in plant system. 2

UNIT—II

3. (a) What is PS-I and PS-II? 2
- (b) Discuss non-cyclic photophosphorylation with suitable model. 5
4. (a) Write notes on the following : $3\frac{1}{2} \times 2 = 7$
- (i) Photorespiration
- (ii) C4 plant

UNIT—III

5. (a) Differentiate between aerobic and anaerobic respirations. 2
- (b) Write the reactions of glycolysis. 5
6. (a) What do you mean by oxidative phosphorylation? Where it takes place? $1+1=2$
- (b) Discuss the mechanism of oxidative phosphorylation. 5

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(Continued)

(3)

UNIT—IV

7. (a) Write characteristic features of enzymes. 2
(b) Add a note on classification of enzyme. 5
8. Write notes on the following : $3\frac{1}{2}\times 2=7$
(a) Nitrate reductase
(b) Ammonium assimilation

UNIT—V

9. (a) Write about physiology of flowering. 3
(b) What is Senescence? Discuss the mechanism of Senescence. 4
10. Write notes on the following : $3\frac{1}{2}\times 2=7$
(a) Physiological role of gibberellins
(b) Abscisic acid

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