

This question paper contains 2 printed pages]

NEPWT—05—2024

FACULTY OF SCIENCE & TECHNOLOGY

M.Sc. (NEP) (Second Year) (Third Semester) EXAMINATION

NOVEMBER/DECEMBER, 2024

BOTANY

(Plant Physiology)

Paper SBOTC-501

(Tuesday, 10-12-2024)

Time : 2.00 p.m. to 5.00 p.m.

Time—3 Hours

Maximum Marks—80

- N.B. :— (i) Q. No. 1 is compulsory.
- (ii) Of the remaining, attempt any *three* questions.
- (iii) Draw neat and labelled diagram wherever required.

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| 1. | Write brief notes on the following : | 20 |
| (a) | Practical applications of Auxin | 5 |
| (b) | Process of Osmosis and its role in plant life | 5 |
| (c) | Ultrastructure of Chloroplast | 5 |
| (d) | Lactic acid fermentation | 5 |

P.T.O.

2. Write brief notes on the following 20
- (a) Define transpiration and comment on starch-sugar interconversion theory. 10
- (b) Physicochemical properties of water and its importance in plant life. 10
3. Write brief notes on the following : 20
- (a) Causes of Seed Dormancy 10
- (b) What is tropic plant movement ? Write note on its types. 10
4. Write brief notes on the following : 20
- (a) Z-Scheme 10
- (b) CAM Pathway 10
5. Write brief notes on the following : 20
- (a) Glycolysis 10
- (b) Pentose Phosphate Pathway. 10
6. Write brief notes on the following : 20
- (a) Concept of Water Potential 5
- (b) Ultra-structure of Mitochondria 5
- (c) Concept of two pigment system 5
- (d) Properties of Phytochromes. 5