

B.Sc. Part-III (Honours) Examination, 2019 (1+1+1)

Subject: Botany

Paper: IX (Plant Physiology & Biochemistry)

Time: 2 Hrs

Full Marks: 50

Q.1 Answer any **Ten** from the following questions:

5 X 10 = 50

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| (a) Briefly describe soil water absorption mechanism by plants                         | 5       |
| (b) Name five essential elements for plants with their physiological function          | 5       |
| (c) Briefly elaborate oxidative phosphorylation  | 5       |
| (d) What is Vernalization? Write it's applications                                     | 2+3=5   |
| (e) Write five physiological roles of each of ABA & Ethylene                           | 2½+2½=5 |
| (f) Comment on factors effecting Enzyme action   | 5       |
| (g) Outline the classification of carbohydrates with example                           | 5       |
| (h) Briefly describe mechanism of stomatal transpiration                               | 5       |
| (i) Write the mechanism of ion uptake with suitable diagram                            | 5       |
| (j) Comment on the functions of Gibberellins   | 5       |
| (k) Describe induced fit model of Enzyme action. What is Prosthetic Group & Co-enzyme? | 5       |
| (l) Briefly describe Kreb's Cycle  | 5       |