PDO-169

(541) M.Sc. BOTANY (FIRST SEMESTER) ATKT

Examination DEC.- 2020

Compulsory/Optional

Group-

Paper-

Name/Title of Paper- PLANT PHYSIOLOGY-IV

Time:-Three House. | **|Maximum Marks:080**

|Minimum Marks 29

नोट : दोनो खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित है।

Note: Answer from Both the Section as Directed. The Figures in the right-hand margin indicate arks.

Section-A

1. **Answer the following question. choose the correct option-** **(1x10=10)**

(a) Electron acceptor during glycolysis is -
(a) FAD (b) FMN (c) NADH (d) NAD

(b) the Enzyme responsible for reduction of molecular nitrogen to ammonia in legume plants is-
(a) Nitrate reductose (b) Nilrite reductose (c)Denitrogenase (d) Nitrogenase

(c) the connectivity compound between glycolysis and kerb's cycle is -
(a) Pyrunic acid (b) Acetyl Co A. (c) Citric Acid (d) phosphoglyceric acid

(d) which one of the following is competitive inhibitor of succinic delyetrogenase.
(a) Monorate (b) Succirate (c) Gilrate (d) Fumarate.

(e) The cofactor of Nitrate reductose activity is -
(a)Molybdenum (b) Copper (c) Iron (d) Boron.

(f) Die back disease of Gitres is caused due to the deficiency of -
(a)Zinc (b) Copper (c) Magnesium (d) Calcium

(g) Acceptor of CO_2 in C_4 Plant is-
(a) Phosphoglyceraldohyde (b) NAD (c) Ribulose diphoshote (d) AMP

(h) In salt tolerant plants the excese salt is transported to vacuole by-
(a) Na-H+ anitpoter (b) Na +K+Pump. (c) Na-Cl Synporter (d) Na - H+ Pump.

(i) the Process of photo respiration in plant leads to-
(a) Release of enhanced levels of CO_2 (b) Removal of waste metabolites
(c) Lowering of the efficiency of photo synthetic carbon fixation
(d) Enhance plant yield

(j) which of the following molecules is involved in Ca^{2+} -dependent cell -cell adhesion-
(a) Calmodulin (b) Cadheries (c) N-CAM (d) Calpin.

2. **Write very brief (short) answer of the following-** **2x5 = 10**

(a) Mycorhiza (b) Root Noclules formation (c) G- Protein
(d) Diagram of C_4 Cycle (only flow chart) (e) Stress tolerance.

SECTION - B

An answers to be answered in detail- **15x4 = 60**

Unit -I

3. Describe various theories proposed to explain the mechanism of "translation of solutes."

OR

Write notes on-
(a) Active and passive transport.
(b) Comparison of xylem and phloem transport

Unit - II

4. Write a detail account on "Signal transduction"

OR

Write notes on
(a) Biological nitrogen fixation (b) Sulphate uptake transport .

Unit-III

5. describe "Calvin cycle" is detail.

OR

Write notes on
(a) CAM Pathway (b) Photorespiration.

Unit-IV

6. What do you know about "srress" what are plant responses to biotic and abiotic stress.

OR

Write notes on
(a) salinity stress (b) Oxidatice stress.