Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD)
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment I – February 2025

II Semester

Class: IPG **Time:2Hours**

Major: Botany **Max.Marks:60**

23MBOC11:Plant Physiology

CourseOutcomes:

CO1: Fundamentalunderstandingofmorpho-physiologicalmysteriesseeninplants.

CO2: Enablethestudentstograspthefunctionalaspectsofplants.

CO3: Advancedscientificknowledgeofthephysiologicalandbiochemicalprocessesseeninplants

CO4: Detailedfunctionalinformationaboutplantgrowthandrelatedplantgrowthregulators.

CO5: Studentsareenabledtoacquireknowledgeonseedphysiologyanditstechnicalaspects.

PartA

Choosethecorrectanswer 6x1=6

1. The hormone involved in the closing and opening of the stomata CO1K1
   a) Gibberellins b) ABA c) Cytokinin d) Ethylene
2. The specialized pore where the guttation takes place is CO1K1
   a) Plasmodesmata b) lenticels c) hydathodes d) stomata
3. The areas which act as storage and are active metabolism sites include CO1K1
   a) Root b) sink c)bark d) sieve
4. In Photosynthesis process, how many molecules of NADPH and ATP are required to reduce six molecules of carbondioxide to glucose? CO2K3
   a) 3ATPand2NADPH b) 6ATPand6NADPH
   c) 12ATPand18NADPH d) 18ATPand12NADPH
5. In Photorespiration, glycolate is converted into serine and carbon dioxide in CO2K1
   a) Mitochondria b)Chloroplast c) vacuoles d) Peroxisomes
6. $FADH_2$ is formed in conversion of CO2K2
   a) Succinyl Co-A - succinic acid b) Succinic acid-fumaric acid
   c) Fumaric acid-malic acid d) Isocitric acid-oxalosuccinic acid

PartB **3x6=18**

Answer all the questions.

Answer should not exceed 400words or two pages

7a.Give an account on Guttation. CO1K2

Or

7b.Explainthe transpiration pull and cohesion force theory CO1K1

8a.Write the difference betweenNon- cyclic and Cyclic Photophsphorylation CO2K1

Or

8b.ExplainC2pathway CO2K2

9a. Explain Fermentation. CO3K1

Or

9b. List out the physiological effects of auxins CO4K1

PartC **3x12=36**

Answerallthequestions.

Answershouldnotexceed800wordsorfourpages

10a.Explain the theories to explain the mechanism of Transpiration CO1K1

Or

10b. Enumerate the mechanism that involves in translocation of solutes. CO1K1

11 a. Explain dark reaction and mention its significance. CO2K2

Or

11.b.Give an account onC4 pathway CO2K2

12 a. Give a detailed account onGlycolysis CO3K2

Or

12b.Write notes on Krebs Cycle CO3K2

No.of copies - 12 StaffIncharge :Dr.MK.Nisha