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(For those admitted in June 2021 and later)

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
VI	PART-III	CORE	U21BO611	PLANT PHYSIOLOGY

Maximum: 75 Marks

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	The exchange of CO ₂ and O ₂ from the atmosphere by leaves is called _____. a) Osmosis b) Diffusion c) Imbibition d) Endosmosis
CO1	K2	2.	The term water potential was introduced by _____. a) Slatyer and Taylor b) Arnon and Stout c) Clark d) Curtis
CO2	K1	3.	The upward movement of water through the plant is called _____. a) Translocation b) Guttation c) Ascent of sap d) Active transport
CO2	K2	4.	Chlorosis, the yellowing of leaves, is a deficiency symptom of which mineral a) Calcium (Ca) b) Nitrogen (N) c) Phosphorus (P) d) All of the above
CO3	K1	5.	A process that makes an important difference between C ₃ and C ₄ plants is__. a) Photorespiration b) Photosynthesis c) Transpiration d) Glycolysis
CO3	K2	6.	The Krebs cycle is also known as the _____. a) Calvin cycle b) Urea cycle c) Phosphoglycolate cycle d) Citric acid cycle
CO4	K1	7.	Which hormone promotes cell division in plants _____. a) Auxin b) Cytokinin c) Absciscic acid d) Ethylene
CO4	K2	8.	Formation of the nodule is induced by _____. a) IAA b) NAA c) IBA d) Both(a) and (c)
CO5	K1	9.	Phytochrome is a photosensitive pigment involved in a) Geotropism b) Phototropism c) Photoperiodism d) Photorespiration

CO5	K2	10.	The process of weakening the seed coat to break dormancy is called_____. a) Vernalization b) Scarification c) Stratification d) Photoperiodism
Course Outcome	Bloom's K-level	Q. No.	SECTION – B (5 X 5 = 25 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	11a.	Explain about water potential and its components? (OR)
CO1	K3	11b.	Describe the factors affecting the rate of Transpiration?
CO2	K3	12a.	What are macronutrients? Give their role and deficiency symptoms. (OR)
CO2	K3	12b.	Explain Passive mineral absorption by ionic exchange?
CO3	K4	13a.	Explain C ₄ pathway, add a note on its significances? (OR)
CO3	K4	13b.	Bring out the factors affecting the respiration?
CO4	K4	14a.	Explain the growth curve with diagram? (OR)
CO4	K4	14b.	Enumerate the role of auxins in plant growth?
CO5	K5	15a.	Explain the role of vernalisation in flowering? (OR)
CO5	K5	15b.	Define apoptosis?

Course Outcome	Bloom's K-level	Q. No.	SECTION – C (5 X 8 = 40 Marks) Answer <u>ALL</u> Questions choosing either (a) or (b)
CO1	K3	16a.	Describe the concept of water potential of a cell. How is it related to Osmosis pressure? (OR)
CO1	K3	16b.	Discuss in detail about the mechanism of stomata movement and factors affecting it?
CO2	K4	17a.	Analyse the factors affecting the absorption of water? (OR)
CO2	K4	17b.	Explain in detail about mechanism of ascent of sap.
CO3	K4	18a.	Describe the non-cyclic electron transport? (OR)
CO3	K4	18b.	Explain the various reactions of citric acid cycle.
CO4	K5	19a.	Give briefly account on growth and development of plants? (OR)
CO4	K5	19b.	Explain the physiological role of ethylene and abscisic acid?
CO5	K5	20a.	Describe the phenomenon of photoperiodism? (OR)
CO5	K5	20b.	Write an account on breaking of seed dormancy?