

PARUL UNIVERSITY
PARUL INSTITUTE OF APPLIED SCIENCES
MID SEMESTER INTERNAL EXAMINATION, APRIL 2017
B. Sc. Semester IV
Biotechnology
Plant physiology

Paper Code:11102205

Date: 11 /04/2017

Time: 12.30 p.m. to 02.00 p.m.

Maximum Marks: 40

Instructions:

1. All questions are compulsory and options are given in first and second question only.
2. Numbers to the right of question indicate the marks of respective question.

Q. 1	Attempt any one question of the following. (i) Describe discovery, structure and physiological effects of auxin. (ii) Explain Calvin cycle in detail	(08)
Q. 2	Attempt any three questions of the following. (i) Draw structure of 2,4-D and state its application (ii) Give difference between: PSI and PSII (iii) What are Antitranspirants? (iv) Draw a diagram of carrier concept theory (v) How temperature and light affects absorption of ion exchange?	(12)
Q. 3	Do as directed. Attempt all five questions. (i) Give full form: RuBp (ii) What is a sigmoid curve? (iii) _____ is an instrument used to measure growth. (iv) Osmotic pressure is defined as? (v) Define: Quantum requirement	(05)
Q. 4	Write correct option in your answer sheet for following 15 multiple choice questions.	(15)

MCQ 1	What is the first stable product of calvin cycle?			
	(A)	RuBp	(B)	3- phosphoglycerate
	(C)	1,3 bisphosphoglycerate	(D)	Glucose
MCQ 2	From following which is CAM plant?			
	(A)	Sugarcane	(B)	Bamboo
	(C)	Maize	(D)	Cactus
MCQ 3	Fruit ripening is induced by_____			
	(A)	Auxin	(B)	Gibberelins
	(C)	Cytokinin	(D)	All of these
MCQ 4	Measure of firmness of cell is known as_____			

	(A)	Cohesion	(B)	Turgor
	(C)	Adhesion	(D)	Hydrogen bond
MCQ 5	NADP is _____			
	(A)	An enzyme	(B)	A part of RNA
	(C)	A coenzyme	(D)	A part of sRNA
MCQ 6	Exo osmosis occurs when plant cell is kept inside _____ solution			
	(A)	Hypotonic	(B)	Hypertonic
	(C)	Isotonic	(D)	All of these
MCQ 7	Who among the following stated for the first time that electron donor in photosynthesis is water _____			
	(A)	Neil	(B)	Blakslee
	(C)	Malvin calvin	(D)	Robert Hill
MCQ 8	Formation of energy currency of cell during photosynthesis is called _____			
	(A)	Substrate level phosphorylation	(B)	Phosphorylation
	(C)	Photophosphorylation	(D)	Oxidative phosphorylation
MCQ 9	Which hormone induces dormancy of seeds?			
	(A)	IAA	(B)	ABA
	(C)	Gibberalic acid	(D)	2,4-D
MCQ 10	Which one of the following pair is not correctly matched?			
	(A)	Cytokinin- cell division	(B)	Gibberelic acid-leaf fall
	(C)	ABA- stomatal closure	(D)	IAA- cell wall elongation
MCQ 11	Secondary wall patterns form in which stage?			
	(A)	Cell elongation	(B)	Cell devision
	(C)	Cell differentiation	(D)	All of these
MCQ 12	For synthesis of organic matter the green plants need only _____			
	(A)	Chlorophyll	(B)	CO ₂ & H ₂ O
	(C)	Light	(D)	All of these
MCQ 13	Which enzyme converts CO ₂ into short lived intermediate in Calvin cycle?			
	(A)	H ₂ O	(B)	Rubisco
	(C)	PEP	(D)	None of these
MCQ 14	Which is a method of mediated uptake of minerals?			
	(A)	Diffusion	(B)	Mass flow of ions
	(C)	Ion exchange	(D)	Radio active ion exchange
MCQ 15	At higher temperature, rate of transpiration is _____			
	(A)	Lower	(B)	No transpiration
	(C)	Moderate	(D)	Higher