	Enrollme	ent No:	Exam Seat No:			
		C.U.SHAH	UNIVERSITY			
	Summer Examination-2019 Subject Name: Plant Physiology					
	Subject (Code: 4SC02PPH1	Branch: B.Sc. (Microbiology)			
	Semester	r: 2 Date: 29/04/2019	Time: 02:30 To 05:30 Marks: 7	0		
	Instructio	ons:				
			any other electronic instrument is prohibited.			
		nstructions written on main answer	· · · · · · · · · · · · · · · · · · ·			
	(3) Draw neat diagrams and figures (if necessary) at right places.					
	(4) A	Assume suitable data if needed.				
Q-1		Attempt the following questions	s:	(14)		
		•		,		
	a)	Define Plasmolysis				
	b)	Define Osmosis				
	c)	Define Active Transport				
	d)	Define Active Transport Name the essential requirements	for Photogynthasis			
	e) f)	Name the terminal electron accep	<u> </u>			
	g)	Chloroplast is a double membrane				
	h)	Glyoxylate cycle occurs in peroxi				
	i)	Name any two micro elements ess				
	$\dot{\mathbf{j}}$		is known as anaerobic respiration. True/ false			
	k)	Lactic acid fermentation occurs in	n presence of oxygen. True false			
	1)	Mitochondrion is a single membra				
	m)	Ascent of sap is based on capillar	y action. True/ false			
A 44	n)	Define Photosynthesis				
		four questions from Q-2 to Q-8		(14)		
Q-2	a)	Attempt all questions Discuss the physical properties of	water	(14) (7)		
	b)	Discuss ion Exchange Theory for		(7) (7)		
		Attempt all questions		(14)		
Ω_{-3}						
Q-3		Discuss the theories for ascent of	Sap	(7)		
Q-3	a) b)	Discuss the theories for ascent of Define Transpiration. Explain var	rious factors affecting transpiration	(7) (7)		
	a) b)	Define Transpiration. Explain var		(7)		
Q-3 Q-4	a) b)		rious factors affecting transpiration			



Attempt all questions
Compare C3 plants and C4 plants

Q-5

a)

(14)

(7)

	b)	Discuss the significance of Photorspiration	(7)
Q-6		Attempt all questions	(14)
	a)	Stomatal opening and closing is an important phenomenon in transpiration. Discuss	(7)
	b)	Explain CAM pathway. Also name the CAM plants	(7)
Q-7		Attempt all questions	(14)
	a)	Compare Mass flow hypothesis and Protoplasmic Streaming Theory	(7)
	b)	Write a note on macro elements essential for plant growth	(7)
Q-8		Attempt all questions	(14)
	a)	Discuss the photosynthetic apparatus and the pigments responsible for Photosynthesis	(7)
	b)	Draw a well labeled diagram of mitochondrion. Also discuss its significance as a respiratory centre.	(7)

