

NOVEMBER 2002

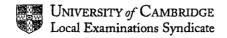
GCE Advanced Subsidiary Level

MARK SCHEME

MAXIMUM MARK: 25

SYLLABUS/COMPONENT:9700/3

BIOLOGY (PRACTICAL (AS))



Page 1	Mark Scheme	Syllabus	Paper
	AS Level Examinations – November 2002	9700	3

Qn	Expected Answers	Mark	Additional Guidance
1 a	10 10	1	
	15 5	1	
	20 0	1	
1 b i	0M > 50 mm	1	
וטו	0.75M & 1M < 50 mm	1	
	change in length calculated correctly	1	
	mean calculated correctly	1	
	+ and - signs used correctly	1	- signs must be used
1bii	axis correctly orientated with units and scale correct	1	
	all plots correct	1	
}	straight line of best fit correct	1	
4 5 33	water antential of distilled vector > then colle		Accept hypo and
1 b iii	water potential of distilled water > than cells therefore water enters cells		hypertonic if correct but
	water potential of 1M < cells		max 4 if no correct ref to
	therefore water leaves cells		water potential
	correct ref to water potential	Max 5	Water peterman
	Soliosi is traisi persitati	.,,	
1 b iv	correct as read from graph with units mol dm ⁻³	1	
	reason must indicate net movement / equilibrium	1	
1 c	more accurate	1	
1	good reason eg can measure to several decimal places / length may be cut at angle	1	Any good reason but reject
	places / length may be cut at angle	· ·	can work out mass / vol of
			water
1 d	Explain how epidermal strips obtained		
1	Immerse in soln for > 15 mins	,	
	Place under microscope		
}	Determine percentage plasmolysis for each solution		
	Use 50+ cells each time	1	
	Plot graph	[1.
	Determine 50% plasmolysis)
	Plasmolysis explained / incipient plasmolysis	Max 5	
}		25	
	ii .	23	
		 	
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