

JUNE 2002

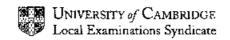
GCE Advanced Subsidiary Level

MARK SCHEME

MAXIMUM MARK: 25

SYLLABUS/COMPONENT:9700/3

BIOLOGY (PRACTICAL (AS))



Page 1	Mark Scheme	Syllabus	Рарег
	AS Level Examinations – June 2002	9700	3

Qn	G	Expected Answers	Marks	Additional Guidance
1ai		Any four from:		
	1	+ & - readings; All five averages in correct relative order is		ì
		W2 W4 W5 W1 W3 'longest to shortest;		1
		Units in mm in all cells of left column;		1
		3 out 5 mean lengths calculated correctly		
		3 out 0f 5 mean change in lengths correct.	max 4	
1 a ii		W4 to left of W2 }		
		W5 to left of W4 } max 3 marks	}	
		W1 to left of W5 W3 to left of W1 }	1	
		-1 mark for each error (max3)	max 3	
1 a iii		Any three from:	1	
		Axis correct orientation;		
		scale and labels correct;		1)
		Plotting correct;	.	Based on candidates results
	1	Line of best fit ie straight line close to plots.	max 3	}
1 a iv		Correct reading from graph & units correct	1	Allow extrapolation.
1 a v	ì	Water entering equals water leaving / no net	1	OWITE
		movement,		
1ь		Any three from:		
		Ensure widths of strips are all same / SA; Use bigger range of solutions (between 0-1	į	
		untess all + then allow >1);	1	
		Larger number of strips / repeat expt;		
		Temperature control;	•	İ
		Even drying with paper towel;		
		All strips from same potato;		1
		Leave > 20 min; Leave for same time;		
		Increase length of each strip;		
		Cover Petri dish:		
		Weigh.	max 3	j
<u></u>	<u> </u>	Total	15	
2 a	1	Quality of diagram ie 3 concentric elipses. Outer only can be broken. No cells, shading		
]	or stiples. Allow fat line. Ignore blood	į	
	Ì	contents:	1	
		2 layers of comparable thickness;	ļ	
		walf width : overall width 1:4 - 1:8		
		Tunica media / elastic, labelled;		A.B
		Tunica adventia / connective, labelled;	max 4	Allow fat label
2 b		Diameter of aorta 1 – 5 mm divided into	L	Accept cm if used for both.
		diagram size;	1 1	Accept written explanation of
		Calculation correct;	1	method. Bold answer allowed if within
			1	parameters.
2 c		Four from		
	ĺ	Wall is thick;		1
		To withstand pressure:		Accept prevents bursting
		Wall crinkted / elastic tissue in wall;		
		To stretch / recoil Inner lining crinkled;	Max 4	OWTTE
		inner inling chikled;		