UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS GCE Ordinary Level

MARK SCHEME for the May/June 2010 question paper for the guidance of teachers

5090 BIOLOGY

5090/32

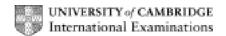
Paper 3 (Practical Test), maximum raw mark 40

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

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	Page 2		Mark Scheme: Teach	Mark Scheme: Teachers' version		Syllabus	Paper 32	
			GCE O LEVEL – May	GCE O LEVEL – May/June 2010		5090		
1	(a)	(i)	S1		S2			
			green uniform colour smooth firm well defined section skin/pericarp/epicarp thicker	- - - -	yellow; blotchy/spotte rough AW; soft; less clear line comparative s	es AW;	[3 max]	
		(ii)	S1 blacker than S2; S1 contains (more) starch; comment on distribution;				[2 max]	
	(b)	(i)	in water-bath ; ref. (equal) volume of Benedict's/equ	pare sample ; ted with Benedict's solution ; R 37°				
		(ii)	——————————————————————————————————————	ervations: S1 green – yellow ; S2 yellow/orange – red ;				

(d) (i) S1 darker/more discoloured;S2 darker/more discoloured;S3 'no change' in both/lighter;[3]

(ii) acid conditions – pH effect on enzymes/metabolism; ref. ripening; [2]

(iii) 3 or more pieces of banana taken; from each type of specimen; placed in range of solutions of different pH (acid & alkali etc); leave for e.g. 15 min; compare/observe changes; OVP; same temperature/test for starch & reducing sugar;

(c) less starch in S2 than S1;

more reducing sugar in S2 than S1;

[Total: 23]

[4 max]

[2]

		GCE O LEVEL – May/June 2010	5090	32
(a)	head, 6 legs	ng marks: (thorax) and abdomen cleanly drawn, min 7 cm; , reasonably correct orientation; A 3 if lateral viewents shown on/abdomen/leg/antenna;		[3]
	labels: head (antenr (comp OVP		[2 max]	
(b)	(i) & (i	 i) length of beetle, length of drawing, place indicated; expression using these figures; magnification properly expressed; R if expression in 	verted.	[3]
		A up to 2 d.p. R rounding above 0.2		
(0)	(i) in	Table 2.1:		
(c)		umber for B (at least 5); number for C ;		[2]
		oplication of formula; orrect calculation, based on (i) ; (30 minimum)		[2]
	(iii) ap	ppropriate numbers given ;		[1]
(d)	(i) <u>16</u>	<u>5</u> ;		[1]
	` '	ar chart : xes correct and labelled ;		
		ccurate plotting in equal, ruled columns;		[2]
		VP such as : predator/prey/moisture/light intensity/ her environmental preference ; R 'suitable'		[1]

Mark Scheme: Teachers' version

Syllabus

Paper

[Total: 17]

Page 3

2