UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2011 question paper for the guidance of teachers

0600 AGRICULTURE

0600/02

Paper 2 (Core Theory), maximum raw mark 80

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.

• Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

	Page 2			Mark Scheme: Teachers' version IGCSE – October/November 2011			Syllabus	Paper	
1	(2)	/i\	donk		SE – Octor	er/Novembei	· 2011	0600	02
1	(a) (i) donkeys;								
	(ii) geese;							[2]	
	((111)	shee	: ρ;					[3]
	(b)					e control / ant cial fertiliser;	ibiotics;		[2]
	(c)	(i)	legui	me and legu	ume;				[1]
	(ii) farmer – less expense for fertiliser / pesticides / higher yield so (Reject gets more money unqualified.) soil – maintains structure / aeration or drainage / less nutrient d						ey; [2]		
	(iii) pigs fertilise / provide nitrate with dung and urine; pigs turnover soil / clear weeds;				[2]				
									[Total: 10]
2	(a)	(i)	anyv	where that to	ouches wate	er-rock interfac	e;		[1]
		(ii)	wind	ze thaw exp effect explanical action	ained;				
			Any	two					[2]
	((iii)		es fall, rot ir s break up /	ito humus; separate so	oil;			[2]
	(b)	plai	d brea	·					
			-	oloughing; se crop rotat	tion, do not	overgraze.)			[3]
									[Total: 8]
3	(a)	(i)		nage – r holding –	poor good	good; poor;			[2]
		(ii)		lime / sand ct add fertili					[1]
	((iii)		-	-	apid air excha n sand particle	_		[2]
	(b)	(i)	_	g of porous ng ditches;	pipes bene	ath soil;			[2]

Pa	ige 3		cheme: Teachers' version	Syllabus	Paper		
		IGCSE	- October/November 2011	0600	02		
	(ii)		[2]				
					[Total: 9]		
l (a)	•	tosynthesis;					
	trar	ling; sport;					
	-	port / turgidity; v two.			[2]		
	-						
(b)	osn	nosis;			[1]		
(0)	tror	aniration:			[41		
(c) transpiration;					[1]		
(d)		er out exceeds water	<u> </u>				
due to lack of soil water / extreme wind / dry atmosphere;					[2]		
(e)	wat	er drops can magnif	y light and scorch leaves / evapo	rates before it car	n sink into soil /		
(-)			ans less loss and turgidity maintain		[1]		
					[Total: 7]		
	(1)						
5 (a)	(1)	for named cereal	digging / turning over soil describ weed removal; (Allow at any sta				
			tilth creation described;		[3]		
	(ii)	appropriate fertiliser appropriate timing e	named; .g. before sowing, at emergence;		[2]		
(b)	(i)	dry / cool; well ventilated; (All	ow good air flow)		[2]		
	/::\		,				
	(ii)	•			[1]		
(iii)		shape of cone caus	es pest to go upside down and los	se grip; (Reject c	annot climb up.) [1]		
	(iv)	thatch – readily available; good insulation;					
	` ,		cannot harbour pests; (Reject cost	unqualified.)	[2]		
					[Total: 11]		
	/IN		/All		-		
6 (a)	` ,		ra; (Allow bacteria if related to ton (Reject windy / hot.)	nato.)	[Total: 11] [1]		

Page 4	Mark Scheme: Teachers' version	Syllabus	Paper
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(b) do not spray in / into wind;

do not eat;

keep spray nozzle close to crops;

Any one.

[1]

(c) (i) Rr rr;

R r r r single alleles;

Rr rr Rr rr all Rr;

Punett square / gametes and F_I given; [4]

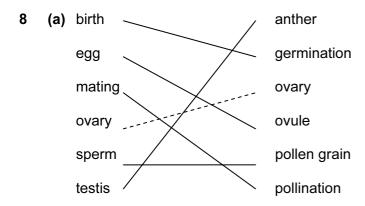
(ii) rr; [1]

(iii) Rr; [1]

[Total: 9]

- 7 (a) (i) correct labels duodenum = circle of gut by liver;
 rectum = circular end gut; (Reject anus opening.) [2]
 - (ii) correct position within circle of gut by liver; [1]
 - (iii) chemical break up; (Allow ref to enzymes.)
 mechanical break up;
 detail e.g. role of any major part; (Reject ref to absorption and hind gut.)
 [3]
 - (b) isolate the animal; [1]
 - (c) they do not have a rumen / four chambered stomach / do not regurgitate / chew cud; [1]

[Total: 8]



5 correct = 4 marks

3 or 4 correct = 3 marks

2 correct = 2 marks

1 correct= 1 mark

[4]

	Page 5		Mark Scheme: Teachers' version	Syllabus	Paper
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((b)	fusion / coming together; of gametes / eggs and sperm;			[2]
((c)	between birth and weaning;			[1]
((d)	provides	s high fat / nutrients; to meet growth demands; s antibodies; to provide immunity /fight disease; digest; for immature digestive system;		
		Any pair.			[2]
					[Total: 9]
9 ((a)	there are	ality animals get high price; e few good quality animals; reased when number of animals decreased		
		Any one.			[1]
((b)	fresh foo	ess / fresh bedding; od / water; on / fresh air;		
		Any two.			[2]
((c)	high carb	needed for growth; bohydrate for energy; s / vitamins for development / disease prevention;		[3]
((d)		s sibling slaughter weights / growth rates; ation / fat levels of siblings or parents;		[2]
					[Total: 8]