

# IGCSE DA Biology 4437 1F

## Mark Scheme (Results)

### Summer 2008

IGCSE

# IGCSE DA Biology 4437 1F

**4437-1F MARK SCHEME**

**Key**

; indicates separate mark points

/ indicates alternatives

eq allow for correct equivalent

— word underlined means no alternatives allowed

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
1	(a) C;			1
	(b) B;			1
	(c) A;			1
	(d) B;			1
	(e) D;			1
	(f) B;			1
	(g) C;			1
				(7)

(Total 7 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
2 (a)	A cornea;			1
	B lens;			1
	C iris;			1
	D retina;			1
				(4)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
2 (b)(i)	C / iris;			1
				(1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
2 (b)(ii)	D / retina;			1
				(1)

(Total 6 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
3 (a)	three boxes, one on top of the other, getting smaller nearer the top;			1
	boxes labelled in correct order;			1
				(2)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
3 (b)(i)	Decrease / die;			1 (1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
3 (b)(ii)	less food (for the big fish);			1 (1)

(Total 4 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
4 (a)	line to trachea (below larynx);  Accept T			1 (1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
4 (b)	cartilage; ribs; alveoli / air sacs / lungs;			1 1 1 (3)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
4 (c)	muscle; contract; flattens / moves down / eq; volume (of thorax) increases; pressure (inside the thorax) decreases;			Max 3

(Total 7 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
5 (a)	beaker B;			1 (1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
5 (b)	C;  less gas / less photosynthesis / slower enzyme activity / eq;			1  1 (2)



Question Number	Correct Answer	Acceptable Answers	Reject	Mark
6 (c)	<b>Animal</b>	<b>Sex chromosomes</b>		(2)
	Snuppys father	(XY)		
	The surrogate mother	XX;		
	snuppy	XY;		

(Total 9 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
7 (a)	access / transport / travel / communication / trees for a purpose / construction / manufacture / logging / eq / trees for fuel farming / mining;			(1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
7 (b)	<p>loss of habitat / food;  loss of numbers / death / extinction / loss of genes / migration / loss of species / eq;</p> <p>less photosynthesis;  global warming / greenhouse effect / ref to CO<sub>2</sub> in air;</p> <p>soil erosion idea / <u>leaching</u>;  flooding / eutrophication / desertification / lack of minerals / eq;</p> <p>less transpiration;  less rainfall;</p>			<p>Max 4</p> <p>(4)</p>

(Total 5 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
8 (a)(i)	anther / stamen / pollen sac;			1 (1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
8 (a)(ii)	drawn to anther only (not to filament);			1 (1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
8 (a)(iii)	pollen; from <u>anther/P</u> to <u>stigma</u> ;			2 (2)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
8 (b)	light / gravity;	sun / sunlight;	phototropism / geotropism	1 (1)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
8 (c)(i)	carbon dioxide + water; (or opposite) glucose + oxygen; (or opposite) Ignore light / chlorophyll	chemical symbols;;		2 (2)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
8 (c)(ii)	thin; large surface area; stomata; air spaces / spongy (mesophyll);		pores / guard cells	Max 2 (2)

(Total 9 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
9	<p>mouth / saliva;  mechanical digestion / chewing / mastication / eq;  amylase; ONCE Ignore carbohydrase (starch to) maltose;</p> <p>pancreas / pancreatic juice / eq;  small intestine / duodenum / ileum;  starch/maltose to glucose;  maltase;</p>			<p>Max 6</p> <p>(6)</p>

(Total 6 marks)

Question Number	Correct Answer	Acceptable Answers	Reject	Mark
10	<p>vena cava;  atrium / auricle;  lung;  valves;  aorta;  hepatic;  glucose / sugar;  glycogen;</p>			<p>8</p> <p>(8)</p>

(Total 8 marks)

