

Biology 2 - Common questions

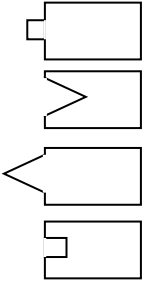
Question Number		Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept										
6	1	(a)		2	Water; Oxygen;	H ₂ O O ₂	Sunlight or Chlorophyll on arrow	H ₂ O O ₂										
		(b)	i	2	All correct = 2 marks 1 error = 1 mark > 1 error = 0 marks <table border="1"> <thead> <tr> <th>Apparatus</th> <th>Presence or absence of starch ✓ or ✗</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>✗</td> </tr> <tr> <td>B</td> <td>✓</td> </tr> <tr> <td>C</td> <td>✗</td> </tr> <tr> <td>D</td> <td>✗</td> </tr> </tbody> </table>	Apparatus	Presence or absence of starch ✓ or ✗	A	✗	B	✓	C	✗	D	✗			
Apparatus	Presence or absence of starch ✓ or ✗																	
A	✗																	
B	✓																	
C	✗																	
D	✗																	
		ii	I	1	B and C;													
			II	1	A and B;													
Total Mark				6														

Question Number		Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
FT	HT							
7	2	(a)	i	2	both substrate molecules having entered the enzyme; an attempt to make them connect;			
			ii	1	Lock and Key;		Enzyme substrate complex	
			iii	2	(Boiling) alters the shape of the {enzyme/active site}/ denatures enzyme; so the molecules do not <u>fit</u> into enzyme/ active site;			
		(b)		3	1 mark for each correct row;;; <div style="text-align: center; margin: 10px 0;"> </div>			
Total Mark				8	NB only allow marks if some cavities shaded			

Question Number		Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
8	3	(a)		1	Bronchiole;	bronchioles		
		(b)	i	1	15;			
			ii	2	3 – 0.6 = 2.4 litres/ l;; [NB unit required for 2 marks] Correct readings but incorrect answer = 1 mark 2.4 but no units = 1 mark No mark for correct unit only	L for litres		
		Total Mark		4				

Question Number		Mark	Answer
FT	HT		
9	4	6 QWC	<p><i>Indicative content:</i></p> <ul style="list-style-type: none"> ▪ use of disinfectant to wash both sets of peas ▪ (fill) a Thermos flask with these living peas ▪ ref to dead peas acting as control ▪ same {mass/ volume/ number} of peas should be used in both flasks ▪ place a thermometer into the peas ▪ place/ put cotton wool into the neck of the flask ▪ record temperature at {regular intervals/ every hour/ every day/ stated times} ▪ compare temperatures in both flasks <p>5-6 marks The candidate constructs an articulate, integrated account correctly linking relevant points, such as those in the indicative content, which shows sequential reasoning. The answer fully addresses the question with no irrelevant inclusions or significant omissions. The candidate uses appropriate scientific terminology and accurate spelling, punctuation and grammar.</p> <p>3-4 marks The candidate constructs an account correctly linking some relevant points, such as those in the indicative content, showing some reasoning. The answer addresses the question with some omissions. The candidate uses mainly appropriate scientific terminology and some accurate spelling, punctuation and grammar.</p> <p>1-2 marks The candidate makes some relevant points, such as those in the indicative content, showing limited reasoning. The answer addresses the question with significant omissions. The candidate uses limited scientific terminology and inaccuracies in spelling, punctuation and grammar.</p> <p>0 marks The candidate does not make any attempt or give a relevant answer worthy of credit.</p>
Total Mark		6	

Question Number								
FT	HT	Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
	5	(a)		1	Peristalsis;	phonetic spelling		
		(b)	i	2	(Mass of food remaining undigested) increases until pH5; {levels off/ plateaus} at pH5; It increases until pH 5 where it levels off (2 marks)			
			ii	1	3;			
			iii	2	Stomach; Protein;			
		Total Mark		6				

Question Number		Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
FT	HT	(a)	i	2	 <p>Each shape needs an oblong + an indentation or a protrusion. <i>4 shapes correct = 2 marks</i> <i>3 shapes correct = 1 mark</i> <i>0/1/2 shapes correct = 0 marks</i></p>			
			ii	2	Cytosine Adenine Thymine Guanine Spelling must be correct <i>4 names correct = 2 marks</i> <i>3 names correct = 1 mark</i> <i>0/1/2 names correct = 0 marks</i>			
		(b)		2	Three bases form a <u>code</u> / a triplet <u>code</u> ; (Code) determines the {order/ sequence} of the amino acids;			
		Total Mark		6				

Question Number								
FT	HT	Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
	7	(a)	i	1	6;			
			ii	1	Anaerobic;			
			iii	2	At zero min/ between 0-2/ at beginning/ before exercise starts; <u>most</u> aerobic respiration is occurring; 2 nd mark linked to 1 st	Least/ lowest lactic acid produced	Oxygen debt	
		(b)		1	Muscle;			
		Total Mark		5				

Question Number		Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
FT	HT							
	8	(a)		1	Active {transport/ uptake};			
		(b)		2	Oxygen is needed; For respiration/ release of energy/ to make ATP; 2 nd mark is linked to 1 st			
		(c)		3	Water passes from where <u>it</u> is in high concentration to where <u>it</u> is in low concentration / Water passes from where solute concentration is low to where solute concentration is high ; Via a semi permeable membrane (or other correct description of membrane i.e. semi/ partially) ; Indication of where the higher concentration of water/ solute is;		SPM	
		Total Mark		6				

Question Number		Sub-section		Mark	Answer	Accept	Neutral answer	Do not accept
FT	HT							
	9	(a)	i	1	Transect (correct spelling);			
			ii	2	Quadrat (correct spelling); Tape measure/ {Tape/ rope} marked at (2) m intervals;			Ruler/ meter stick
		(b)		2	$(2/25) \times 100 = 8\%$ Method; Answer; Correct answer on its own = 2			
		(c)		2	There is <u>less</u> light/ water/ minerals/ ions/ nutrients; Because of <u>{more/ most} competition</u> from the parent population;			Parent plant takes all (named resource) space
		Total Mark		7				

Question Number		Mark	Answer
FT	HT		
	10	6 QWC	<p>Indicative content</p> <ul style="list-style-type: none"> • Harmful effects on cilia and mucus • Tar/ carcinogens and lung cancer • Smoke inhalation causes coughing • Which can result in emphysema leading to shortness of breath due to alveoli damage • Smoking is less/ not socially acceptable now because of proof of harmful effects • Passive smoking • Attempts at reduction include <ul style="list-style-type: none"> ▪ stopping adverts, ▪ banning smoking in public places, ▪ warnings on packets and increase in cost ▪ stopping the display of cigarettes in shops <p>5-6 marks The candidate constructs an articulate, integrated account correctly linking relevant points, such as those in the indicative content, which shows sequential reasoning. The answer fully addresses the question with no irrelevant inclusions or significant omissions. The candidate uses appropriate scientific terminology and accurate spelling, punctuation and grammar.</p> <p>3-4 marks The candidate constructs an account correctly linking some relevant points, such as those in the indicative content, showing some reasoning. The answer addresses the question with some omissions. The candidate uses mainly appropriate scientific terminology and some accurate spelling, punctuation and grammar.</p> <p>1-2 marks The candidate makes some relevant points, such as those in the indicative content, showing limited reasoning. The answer addresses the question with significant omissions. The candidate uses limited scientific terminology and inaccuracies in spelling, punctuation and grammar.</p> <p>0 marks The candidate does not make any attempt or give a relevant answer worthy of credit.</p>
Total Mark		6	