

# Edexcel International AS/A Level

IAL BIOLOGY

YBI11-20IO4

---

First teaching in 2018, first assessment 2019

---



# Welcome to Pearson Edexcel

- Welcome to Pearson Edexcel, the world's leading learning company and the UK's largest awarding body.
- We set the standard for worldwide recognised qualifications, built on the UK educational system and accepted by universities worldwide.
- We have a simple mission:  
**to help make a measurable impact on improving people's lives through learning.**

*'We judge ourselves – and invite others to judge us – not by the products that we make but by the impact on learners.'*

John Fallon,  
Chief Executive Officer,  
Pearson



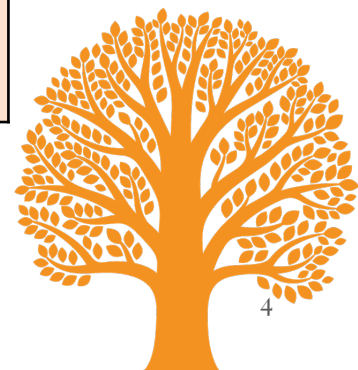
# Agenda

Time	Item
13:00	Register
13:30	Welcome
13:32	Quick review of IAL Biology specification
13:35	Assessment Objectives and command words
13:55	Mark schemes
14:05	Walkthrough
15:15	Examiner reports
15:25	Support
15:30	Finish



# Overview of the specification: IAS

Unit	Topic
1. Molecules, Diet, Transport and Health	1. Molecules, Transport and Health
	2. Membranes, Proteins, DNA and Gene expression
2. Cells, Development, Biodiversity and Conservation	3. Cell structure, Reproduction and Development
	4. Plant structure and function, Biodiversity and Conservation
3. Practical Skills in Biology I	Experimental skills acquired from the study of Units 1 and 2



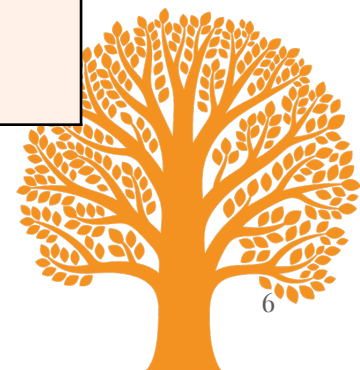
# Overview of the specification: IA2

Unit	Topic
4. Energy, Environment, Microbiology and Immunity	5. Energy flow, Ecosystems and the Environment
	6. Microbiology, Immunity and Forensics
5. Respiration, Internal environment, Coordination and Gene Expression	7. Respiration, Muscles and the Internal environment
	8. Coordination, Response and Gene technology
6. Practical Skills in Biology II	Experimental skills acquired from the study of Units 1, 2, 4 and 5



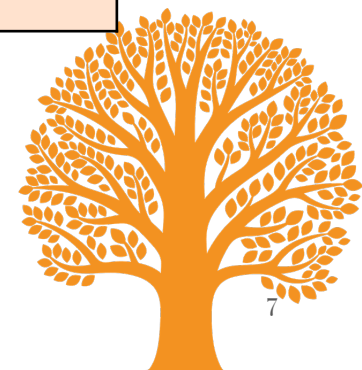
# What are the Assessment Objectives?

Code	Description	% in IAS	% in IA2	% in IAL
AO1	Demonstrate knowledge and understanding of science	36–39	31–34	34–37
AO2	a) Application of knowledge and understanding of science in familiar and unfamiliar contexts	34–36	33–36	33–36
	b) Analysis and evaluation of scientific information to make judgements and reach conclusions	9–11	14–16	11–14
AO3	Experimental skills in science, including analysis and evaluation of data and methods	17–18	17–18	17–18



# Where are each of the AOs assessed?

Unit	Assessment Objective marks				Total
	AO1	AO2a	AO2b	AO3	
1	34-36	34-36	9-11	0	80
2	34-36	34-36	9-11	0	80
3	5-7	0	0	43-45	50
4	33-35	38-40	16-18	0	90
5	33-35	38-40	16-18	0	90
6	5-7	0	0	43-45	50



# How do students know what is being assessed?

## Command words





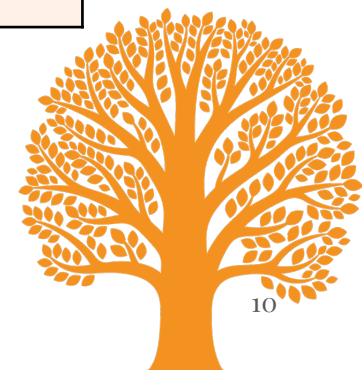
# Command words and Assessment Objectives

Code	Description	Command words
AO1	Demonstrate knowledge and understanding of science	<b>Compare and Contrast, Complete, Describe, Draw, State / Name / Give, Explain, Suggest,</b> Most MCQs
AO2	a) Application of knowledge and understanding of science in familiar and unfamiliar contexts	<b>Calculate, Describe, Determine, Explain, Show, Suggest</b>
	b) Analysis and evaluation of scientific information to make judgements and reach conclusions	<b>Assess, Comment, Criticise, Describe, Discuss, Evaluate, Explain, Suggest</b>
AO3	Experimental skills in science, including analysis and evaluation of data and methods	<b>Any</b> command word used in Units 3 and 6 examination papers



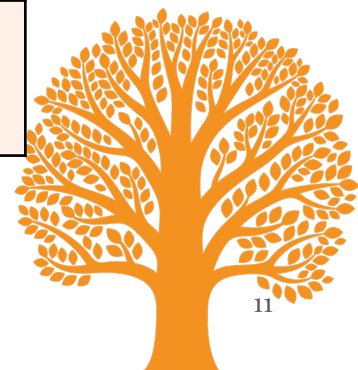
# Mapping Assessment Objectives

Question	Assessment Objective
1(b) State what is meant by osmosis.	
1(d) Explain why oxygen molecules can pass directly through the cell membrane.	
3(b)(ii) Calculate the volume of blood...	
3(c) Explain the difference between the dissociation curves.	
5(c) Explain why each codon for the DNA genetic code must contain at least three bases.	
6(b)(ii) Explain how this mutation results in a non-functioning CFTR protein.	



# Mapping Assessment Objectives

Question	Assessment Objective
1(b) State what is meant by osmosis.	1
1(d) Explain why oxygen molecules can pass directly through the cell membrane.	2(a)
3(b)(ii) Calculate the volume of blood...	2(a)
3(c) Explain the difference between the dissociation curves.	2(b)
5(c) Explain why each codon for the DNA genetic code must contain at least three bases.	1
6(b)(ii) Explain how this mutation results in a non-functioning CFTR protein.	2(a)



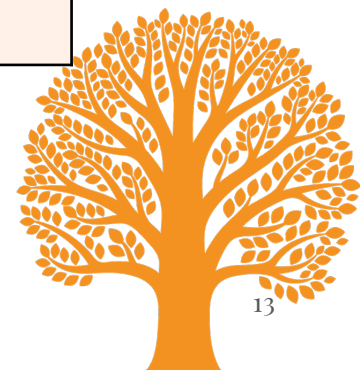
# Mapping Assessment Objectives

Question	Assessment Objective
1(b) State what is meant by the term phenotype.	
1(c)(ii) Calculate how many times bigger...	
2(b) Explain how the appearance of <i>Paraluteres prionurus</i> shows it is adapted to its habitat.	
6(a)(ii) Draw three labelled features on this diagram that may be found in a prokaryotic cell.	
6(b) Explain the distribution of bacteria in the digestive system. Use the information in the diagram and table to support your answer.	
7(b) Describe the role of the rough endoplasmic reticulum in the synthesis of haemoglobin.	



# Mapping Assessment Objectives

Question	Assessment Objective
1(b)(i) State what is meant by the term phenotype.	1
1(c)(ii) Calculate how many times bigger...	2(a)
2(b) Explain how the appearance of <i>Paraluteres prionurus</i> shows it is adapted to its habitat.	2(a)
6(a)(ii) Draw three labelled features on this diagram that may be found in a prokaryotic cell.	1
6(b) Explain the distribution of bacteria in the digestive system. Use the information in the diagram and table to support your answer.	2(a) & 2(b)
7(b) Describe the role of the rough endoplasmic reticulum in the synthesis of haemoglobin.	1



# Reading the question carefully

how / why

increase / decrease

the / this / these



(b) Anticoagulants, antiplatelets and thrombolytics are drugs used to treat blood clots.

(i) One anticoagulant binds to the active site of thrombin.

Explain how this drug reduces blood clotting.

(2)

by stopping platelets sticking together and releasing thromboplastin

(2)

It stops thrombin binding to fibrinogen so fibrinogen can not be converted to fibrin.



# What is a mark scheme?

Points-based: most questions / marks

Levels-based: up to two in each external examination for  
Units 1, 2, 4, and 5





# Using a mark scheme

- ❖ Provides an answer to the question.
- ❖ They often give a number of options students might use.
- ❖ They can show indicative content to guide the markers.
- ❖ They also advise marker of common errors and what to reward and not reward.
- ❖ Examiners are encouraged to use the mark scheme positively and to look to award marks for what is there rather than penalise students for what isn't.



# Using a points-based mark scheme

Question Number	Answer	Additional guidance	Mark
7(c)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> <li>cortical (granules / vesicles) fuse with (egg cell surface) membrane and release enzymes (1)</li> <li><b>zona pellucida</b> hardens (1)</li> <li>to prevent (polyspermy / more than one sperm (nucleus) entering egg cell) / to ensure that the nucleus is diploid (1)</li> </ul>	<p>Ignore chemicals</p> <p>Accept 'thickens' or 'becomes impermeable'</p> <p>Accept 'no other sperm can enter'</p>	(3)

Question number

Preferred answer

Guidance as to acceptable alternatives

Marks available



# Using a points-based mark scheme

Answer

An explanation that includes the following points:

- cortical {granules / vesicles} fuse with (egg cell surface) membrane and release enzymes (1)

Curly brackets – one of these alternatives must be present.

Smooth bracket – this is the context for the answer – it does not need to be present but should not be contradicted.



# Using a levels-based mark scheme

Explain what the solution of sugars should contain to preserve pineapples.  
Use the information in the table to support your answer.

(6)

Question number	Answer
*5(b) (ii)	<p>Indicative content:</p> <ul style="list-style-type: none"><li>• sugar solution with a lower water potential than the cytoplasm of the cell (D)</li><li>• sugar solution should be hypertonic (D)</li><li>• so that water will pass out of the cytoplasm by osmosis (E)</li><li>• concentration of sugar solution should be the same as the cytoplasm (D)</li><li>• so that sugars will not diffuse out (E)</li></ul>



# Using a levels-based mark scheme

Level 1 : description of conditions needed for osmosis and maintaining sugar concentration

1 mark = a description of one condition

2 marks = a description of each condition or an explanation of one condition

Level 2 : explanation of conditions needed for both osmosis and maintaining sugar concentration

3 marks = a description of one condition and an explanation of the other condition

4 marks = an explanation of each condition

Level 3 : indicates that concentration of each sugar needs to be the same as in the pineapple and another solute needs to be included.

5 marks = and includes one of the above

6 marks = and includes both of the above



# Walkthrough

To consider how a mark scheme is applied we will look at the paper and mark scheme for October 2019 WBI11 (Unit 1 – paper).



## General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.



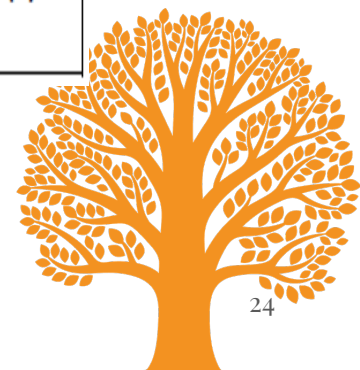
# Q1(a)(i)

Describe the conclusions that can be made about the risk factors for CVD.

Use the information in the graph to support your answer.

(2)

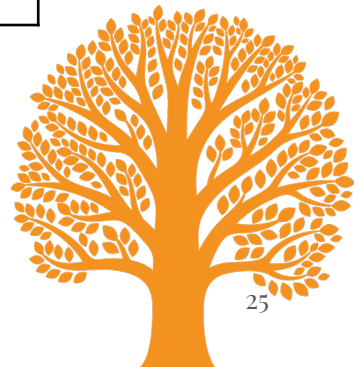
Question number	Answer	Additional guidance	Mark
1(a)(i)	<p>A description that includes the following points:</p> <ul style="list-style-type: none"><li>• smoking increases the risk of developing CVD (1)</li><li>• age increases the risk of developing CVD (1)</li></ul>	<p><b>ACCEPT</b> a higher chance, positive correlation, smoking higher than not smoking</p> <p><b>ACCEPT</b> a higher chance, positive correlation</p>	(2)





Question number	Answer	Additional guidance	Mark
1(a)(i)	<p>A description that includes the following points:</p> <ul style="list-style-type: none"> <li>• smoking increases the risk of developing CVD (1)</li> <li>• age increases the risk of developing CVD (1)</li> </ul>	<p><b>ACCEPT</b> a higher chance, positive correlation, smoking higher than not smoking</p> <p><b>ACCEPT</b> a higher chance, positive correlation</p>	(2)

Response	Agreed mark	Explanation
A	2	From line 2, MP2 then MP1
B	2	MP2 and MP1
C	1	MP1 only
D	1	MP1 only



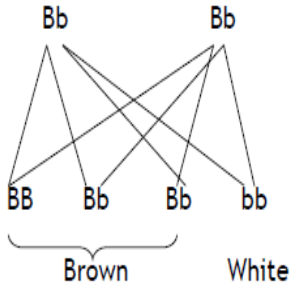
# Q2(a)

Rabbits can have brown fur or white fur.

A heterozygous rabbit will have brown fur.

(a) Draw a genetic diagram to show the genotypes and corresponding phenotypes of the baby rabbits produced if two heterozygous rabbits were bred together.

(3)

Question number	Answer	Additional guidance	Mark
2(a)	<p>A diagram that shows the following:</p> <ul style="list-style-type: none"> <li>genotype of parents / alleles in the gametes (1)</li> <li>genotypes of offspring as BB, Bb and bb (1)</li> <li>corresponding phenotypes shown as brown (BB and Bb) and white (bb) (1)</li> </ul>	<p><b>Accept</b> other letters used for alleles</p>  <p><b>ACCEPT</b> if clear from any ratios or percentages given</p> <p>CE throughout</p>	(3)



Response	Agreed mark	Explanation
A	3	All three MP (parental gametes and offspring genotypes can be implied from correctly drawn Punnet square / 'Birds nest' diagram).
B	3	All three MP.
C	0	No MP seen.
D	3	All three MP (although the convention of capital for dominant is not followed the key is clear and cross can be followed).

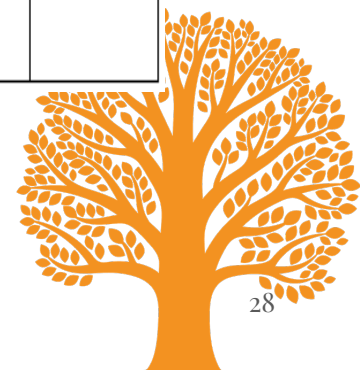


## Q2(b)

A number of heterozygous pairs of rabbits were bred together and produced 284 baby rabbits.

Calculate the expected number of homozygous brown rabbits, heterozygous brown rabbits and white rabbits produced.

Question number	Answer	Additional guidance	Mark
2(b)	<p>An answer that includes the following points:</p> <ul style="list-style-type: none"><li>• number of homozygous brown rabbits shown (1)</li><li>• number of heterozygous brown rabbits shown (1)</li><li>• number of white rabbits shown (1)</li></ul>	<p>CE from part (a)</p> <p>BB = 71</p> <p>Bb = 142</p> <p>bb = 71</p> <p><b>ACCEPT 1 2 1 for 1 mark</b></p>	<p>(3)</p>



Response	Agreed mark	Explanation
A	3	All three answers on answer line correct.
B	1	Only third answer correct – no consequential error when answer lines are provided for each mark.



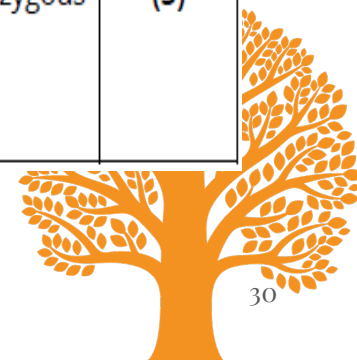
# Q3(b)

Haemophilia A is inherited in a similar way to red-green colour blindness.

Explain why more males than females are affected with haemophilia A.

(3)

3(b)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"> <li>• because {gene / (defective) allele} located on the X chromosome (1)</li> <li>• because defective allele is recessive (1)</li> <li>• therefore, males with {defective / haemophilia} <b>allele</b> will only have that <b>allele</b> (1)</li> </ul>	<p><b>ACCEPT</b> X-linked disease / sex-linked disease / inherited on the X chromosome</p> <p><b>ACCEPT</b> {mutated / affected} allele / {haemophilia / disease} is recessive</p> <p><b>ACCEPT</b> males will not carry a {healthy / normal} allele females need {both defective alleles / to be homozygous for defective alleles} to have haemophilia</p>	(3)
------	---	---	-----



Response	Agreed mark	Explanation
A	3	First three lines. MP1, MP2 'it' allowed for haemophilia and MP3.
B	0	Nothing seen.
C	3	MP1, MP2 and MP3. MP3 is borderline ('higher chance of having healthy X...' being just about equivalent to additional guidance for MP3).
D	3	MP1, MP2 and MP3. MP2 and 3 in the last three lines.



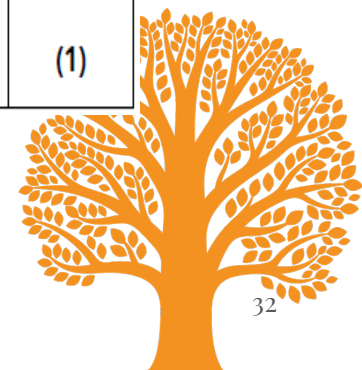
# Q4(a)(ii)

(ii) Which bond joins two monosaccharides together to form a disaccharide?

(1)

- ☐ **A** ester
- ☐ **B** glycosidic
- ☐ **C** hydrogen
- ☐ **D** phosphodiester

Question number	Answer	Mark
4(a)(ii)	<p><b>B</b> glycosidic</p> <p>The only correct answer is B.</p> <p><i>A is incorrect because ester bonds join organic acids and alcohols together</i></p> <p><i>C is incorrect because hydrogen bonds do not join two monosaccharides together</i></p> <p><i>D is incorrect because phosphodiester bonds join phosphate group to an organic alcohol</i></p>	(1)





# Q4(b)

Amylose and amylopectin are components of starch.

Compare and contrast the structure of amylose with the structure of amylopectin.

(3)

Question number	Answer	Additional guidance	Mark
4(b)	<p>An answer that includes the following points:</p> <p>similarities:</p> <ul style="list-style-type: none"> <li>both (polymers) composed of <math>\alpha</math> glucose (1)</li> <li>both contain 1 - 4 glycosidic {bonds / links} (1)</li> </ul> <p>differences:</p> <ul style="list-style-type: none"> <li>amylose has {1 - 4 glycosidic bonds (only) / no 1 - 6 glycosidic bonds} and amylopectin has (1 - 4 and) 1 - 6 glycosidic bonds (1)</li> </ul>	<p><b>DO NOT</b> piece together unless in same sentence or two linked adjacent sentences</p> <p><b>ALLOW</b> composed of glucose if a glycosidic bonds are given</p> <p><b>ACCEPT</b> amylose is {a chain / helical / linear / unbranched} and amylopectin is branched</p> <p><b>NB</b> 'amylose has 1 - 4 glycosidic bonds and amylopectin has 1 - 4 and 1 - 6 glycosidic bonds' scores mark points 2 and 3</p>	(3)



Response	Agreed mark	Explanation
A	2	MP2 and 3
B	2	MP2 and 3. Not MP1 as refers to glucose not $\alpha$ glucose.
C	3	All three marks
D	2	MP2 and 3



## Q5(c)(ii)

Explain how the uptake of substances would be affected if the amoeba increased its number of pseudopodia.

(2)

Question number	Answer	Additional guidance	Mark
5(c)(ii)	<p>An explanation that includes the following points:</p> <ul style="list-style-type: none"><li>• (more pseudopodia would) increase the surface area (of the pseudopodia / amoeba / cell / membrane) (1)</li><li>• therefore {uptake / diffusion} would be faster (1)</li></ul>	<p><b>ACCEPT</b> 'it' as meaning uptake rate increases</p> <p><b>IGNORE</b> uptake {increases / greater} references to active transport</p>	(2)



Response	Agreed mark	Explanation
A	1	MP1 only
B	2	MP1 and 2
C	1	MP1 only
D	2	MP2 and 1



## Q6(b) \*(ii)

Explain the possible effects of these three types of mutation on the amino acid sequence coded for by this length of DNA.

Use the information in the table to support your answer.

(6)



# Q6(b) \*(ii)

---

Indicative content:

Substitution:

- only affects one triplet codon
- may not change the amino acid
- e.g. number 6 becomes A, would still code for leucine
- may change amino acid
- e.g. number 1 becomes G, resulting in valine
- may result in a stop codon
- e.g. number 12 becomes G

Deletion:

- one base removed will shift the reading frame back one place
- all amino acids after the mutation will be affected
- closer to the start of the gene the greater the affect
- fewer amino acids coded for
- e.g. remove base 4 and sequence becomes methionine serine phenylalanine threonine

Insertion:

- one base added will shift the reading frame forward one place
- all amino acids after the mutation will be affected
- closer to the start of the gene the greater the affect
- e.g. add C between numbers 9 and 10 and sequence becomes leucine proline serine



# Q6(b) \*(ii)

## Aspects to comment on:

1. Substitution changing the amino acid
2. Deletion changing sequence
3. Insertion changing sequence
4. Stop codons appearing shortening the sequence
5. Substitution may have no effect
6. Position of {insertion / addition} significant



# Q6(b) \*(ii)

## Level 1

1 mark : correct statement about mutations

2 marks : 1 aspect commented on with a corresponding illustration **OR** 2 or more aspects commented on but no illustrations

## Level 2

3 marks : 2 aspects commented on with corresponding illustrations **OR** 3 or more aspects commented but only 1 or 2 illustrations

4 marks : 3 aspects commented on with corresponding illustrations

## Level 3

5 marks : 4 aspects commented on with corresponding illustrations

6 marks : 5 aspects commented on with corresponding illustrations





Response	Agreed mark	Level	Explanation
A	1	1	One relevant aspect commented on.
B	3	2	Several aspects commented on – only one illustration.
C	2	1	A number of aspects commented on – no illustrations.



## Q7(a)(i)

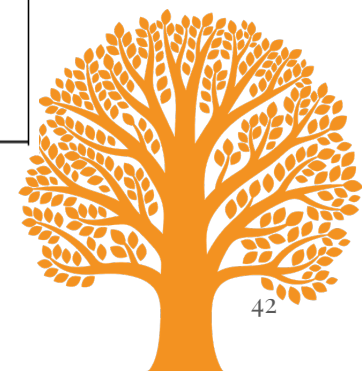
Pulse pressure is the difference between systolic pressure and diastolic pressure.

In a healthy person, pulse pressure should be at least 25% of the systolic pressure.

Determine whether this person is healthy, using the point indicated by the arrow on the x-axis of the graph.

(2)

Question number	Answer	Additional guidance	Mark
7(a)(i)	<p>An answer that includes the following points:</p> <ul style="list-style-type: none"><li>• difference between systolic and diastolic pressure is 5.3 (kPa) (1)</li><li>• person is healthy (because pulse pressure is greater than 3.75 kPa) (1)</li></ul>	<p><b>ALLOW</b> 35 / 35.3</p> <p><b>ALLOW</b> (because {35 / 35.3} % is higher than 25%)</p> <p><b>CE applied</b> to second point and comparison adjusted accordingly</p>	(2)



Response	Agreed mark	Explanation
A	2	Both marks awarded.
B	0	Incorrect pulse pressure calculation and incorrect interpretation.
C	0	No working for a pulse pressure but incorrect pulse pressure as a percentage of systolic pressure and then incorrect interpretation.
D	1	Correct pulse pressure calculation but incorrect interpretation.



# Q8(c)(i)

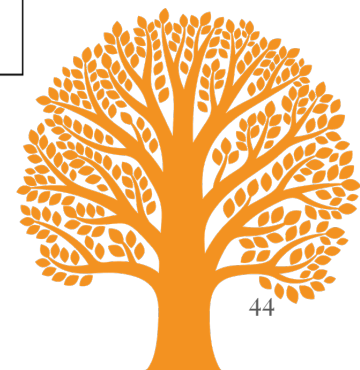
Ornithine transcarbamylase (OTC) is one enzyme involved in the urea cycle.

Ornithine transcarbamylase deficiency is an inherited genetic disorder.

(i) Suggest how a person can be shown to have this disorder.

(3)

Question number	Answer	Additional guidance	Mark
8(c)(i)	<p>An answer that includes three of the following points:</p> <ul style="list-style-type: none"><li>• genetic screening / named screening method / looking for a mutation</li><li>• biochemical test / blood test / description of named molecule whose level would be different</li><li>• family history / pedigree analysis</li></ul>	<p><b>IGNORE</b> where the molecules maybe found</p>	(3)



Response	Agreed mark	Explanation
A	1	MP2 for increase in concentration of ammonia.
B	3	All three marking points. No citrulline produced for MP2, amniocentesis for MP1 and family history for MP3.
C	1	MP3 – genetic pedigree.
D	1	MP2 – high ammonia concentration.



# Examiner reports

- ❖ Produced for each paper by the Principal Examiner
- ❖ Provides feedback on performance of the cohort as a whole
- ❖ Identifies strengths and weaknesses of cohort
- ❖ Includes examples of candidate responses – explaining why marks were or were not awarded



**(ii) Explain** the importance of each of these ions to the plant (magnesium, nitrate and calcium).

Comments on performance of the cohort

### ***Question 1 (b) (ii)***

This question asked candidates to explain the importance of the three inorganic ions from the graph. Nearly all candidates could explain the importance of nitrate ions to the plant and this was the most commonly awarded marking point.

Fewer candidates could fully explain the importance of calcium and magnesium ions. It was common that they simply stated that calcium ions were needed to make calcium pectate, or that magnesium ions were needed to make chlorophyll, but did not expand the explanations.

A small minority of candidates described what would occur to a plant deficient of these inorganic ions which was not credit worthy.



# Exemplar response

(ii) Explain the importance of each of these ions to the plant.

(3)

Magnesium ions are used for in chlorophyll.  
Nitrate ions are required for the synthesis of amino acids.  
Calcium ions are ~~so~~ are required ~~for~~ for making ~~the~~ middle lamella of the cell wall.



This response scored one mark for the importance of nitrate ions to the plant. There is no explanation as to why chlorophyll is needed by the plant so marking point two could not be awarded. There was no reference to calcium ions being needed to form calcium pectate so mark point one could not be awarded.





## Question 5 (b) (ii)

This was the first of the level based questions on this paper.

It was pleasing to see that many candidates could describe testing on animals, three phased testing including double blind trials and placebos and many good descriptions of a general drug trial were seen.

However, it was disappointing that a significant number of candidates did not apply their knowledge to the given context of the plague bacteria *Y. pestis* given throughout Q5 and again in the information stem for Q5(b)(ii). This limited them to a level one response. Those candidates who did relate their descriptions to the given context could access levels two and three depending on the depth of detail in their descriptions.

The full 6 marks were awarded for a full description of animal testing, three phased testing including double blind trials and placebos related to the given context of the plague bacteria *Y. pestis* but with the extra detail regarding statistical analysis/testing the drug on the bacteria in vitro.

A number of responses did not give a correct description of the number of people used in each stage of the drug trial and this limited the level they could be awarded.

A small minority of candidates gave a description of the antimicrobial core practical methodology.



# Exemplar response

The drug can be test using the three based trial. In this, during the pre-clinical trials, the drugs are tested on cultured cells to see the general effects. The drugs are then given to a <sup>an</sup> where animal to see the effect on a whole animal. Any side effect away from the target cell is noted. If the drug does not harm the animals, then it is moved to phase 1 in clinical trials. In this a small group of healthy volunteers are given different doses of the drug. <sup>they are told what the drug does</sup> The absorbance rate, metabolism, excretion profile of the drugs are asced. The effects of different doses of the drugs are ascesed to try and work out the optimum dose. If the drug has no effect, <sup>side</sup> then an independant organisation allow the drug to be in phase 11 in clinical trials. In this a small group of patients with y pestis <sup>are</sup> given different doses of the drugs. Studies are similar to phase 1. The optimum dose is then worked out. If the drug cures the patient, it is moved to phase 3 where large groups of the patients with y pestis is giver the optimum. The patients are either given the drug or a placebo (inactive substance) in a double blind trial. If the treated group has significantly better results than the placebo, the drug has passed the trials and put forward to liscensing authority. The patients and healthy people are the same age and gender.

(Total for Question 5 = 10 marks)



This was a level three response.

The candidate has correctly described testing on animals, small group of healthy volunteers, small number of patients with a *Y. pestis* infection, large number of patients with a *Y. pestis* infection and a double blind trial involving a placebo.

As they have not described testing on the bacteria in vitro or statistical analysis of the data it could not be awarded the higher mark in the level.

5 marks were therefore awarded.



Relate your knowledge and understanding to the given context.



# Assessment materials

 > Our qualifications > International Advanced Levels > Biology (2018)

## International Advanced Levels Biology (2018)

Specification

**Course materials**

Published resources

News

### Find course materials

**Specification and sample  
assessments (2)**

**Exam materials (13)**

**Teaching and learning  
materials (17)**

<https://qualifications.pearson.com/en/qualifications/edexcel-international-advanced-levels/biology-2018.coursematerials.html#filterQuery=Pearson-UK:Category%2FExam-materials>



# Feedback and training: packs and events

## Training from Pearson

Live training

On-demand training

Centre-based training

About

### On-demand training

This on-demand training has been developed to support you in the delivery, assessment and post-examination feedback for a range of different subjects. They can be watched at a time that suits you, shared with colleagues and revisited when needed.

### Find your pre-recorded Training

#### Step 1. Select a Qualification Family

A Level	Entry Level Certificate
Applied GCE	GCSE
Applied GCSE	International Advanced Levels
AS And A Level	International GCSEs And Edexcel Certificates
AS Level	LCCI Financial And Quantitative
BTEC Firsts	Mathematics In Context
BTEC Nationals	Project Qualification
Digital Applications (CiDA And DiDA)	

Pre-records are here:

<https://qualifications.pearson.com/en/support/training-from-pearson-uk/pre-recorded-training.html>



# Science Community for IG and IAL

Join the community and keep  
in touch with  
others teaching IG and IAL  
science [here](#)



Please fill in your evaluation forms.

We value your  
feedback!



Thank you for  
your time

Find out more about us at:  
<http://qualifications.pearson.com>



ALWAYS LEARNING