

L3 Lead Examiner Report 1901

January 2019

L3 Qualification in Animal Management: Animal Biology





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Grade Boundaries

What is a grade boundary?

A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade, at Distinction, Merit and Pass.

Setting grade boundaries

When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark is for a particular grade.

When our experts set the grade boundaries, they make sure that learners receive grades which reflect their ability. Awarding grade boundaries is conducted to ensure learners achieve the grade they deserve to achieve, irrespective of variation in the external assessment.

Variations in external assessments

Each external assessment we set asks different questions and may assess different parts of the unit content outlined in the specification. It would be unfair to learners if we set the same grade boundaries for each assessment, because then it would not take accessibility into account.

Grade boundaries for this, and all other papers, are on the website via this link:

http://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html

Animal Biology: 31645H

| Grade | Unclassified | Level 3 | | | |
|---------------|----------------|---------|----|----|----|
| Grade | Officiassifica | N | Р | М | D |
| Boundary Mark | 0 | 12 | 25 | 40 | 56 |



Introduction

January 2019 was the fourth series of the new specification for Animal Management, when this mandatory unit has been assessed via an external assessment rather than via centre based internal assessment.

The question paper followed the format identified in the additional sample assessment materials published on the Pearson website.

The paper had seven questions. Each question was based on an area of the specification. Learners were required to demonstrate knowledge and understanding of a range of specification topics and to apply this knowledge to the specific question scenarios. The intention was to offer as broad coverage as possible for all areas of the unit content. Questions had varying weightings attached to them, with 1 to 3 marks for the lower demand questions and 4 to 8 marks for questions where an extended response was required.

The extended response, eight mark, questions were marked using a 'levels based' approach to assessment. The overall quality of the response was considered rather than the specific number of points gained.

There was also a focus on the use of suitable technical and vocational language and terminology within each response. The remainder of the questions on the paper were assessed using a range of indicative content and on the quality and clarity of the explanation provided.

Individual Questions

The following section considers each question on the paper, providing examples of popular learner responses and a brief commentary of why the responses gained the marks they did. This section should be considered with the live external assessment and corresponding mark scheme.



(2)



Question 1

Q1 (a)

Majority of learners scored 2 marks for question 1a through being able to recall the two missing groups of nutrients as per section A2.1 in the unit content.

- 1 There are seven groups of nutrients that are important in an animal's diet.
 - (a) Complete the table below with the two missing groups of nutrients.

Water
Fibre
Carwonydroces
Lipids
Proteins
Vitamins
Minerals

2 marks

The two correct nutrient groups have been included in the table to achieve 2 marks.

(2)

- 1 There are seven groups of nutrients that are important in an animal's diet.
 - (a) Complete the table below with the two missing groups of nutrients.

Water
Fibre

Calbahydrates
Lipids

Proteins

Calcium.

Minerals

1 mark

Carbohydrates is correct to achieve 1 mark while 'calcium' is not a nutrient group and does not gain a mark.





Q1 (b)

Majority of learners were unable to recall the name 'peristalsis / peristaltic motion' from section A1.3 in the unit content. Learners were credited for incorrect spellings of the term.

| (b) State the name of the muscular contractions that push food and waste production through the digestive system. | | |
|-------------------------------------------------------------------------------------------------------------------|-------------|-----|
| | Peristalsis | (1) |
| | | |

1 mark

The correct name has been stated.

| (b) State the name of the muscular contractions that push food and waste products through the digestive system. | (1) |
|-----------------------------------------------------------------------------------------------------------------|-----|
| Mastication | |

0 marks

'Mastication' is an incorrect answer.





Q1 (c)

This was a 4 mark question from section A2.3 of the unit content re digestion in birds. Majority of learners scored 1 or more marks.

(c) Complete the table below to show the names of organs and functions of a bird's digestive system.

(4)

| Name of organ | Function |
|------------------------|------------------------------------|
| Стор | Stores food |
| Ventriculus/ "Cizzard" | Mechanical digestion/grinding food |
| Proventriculus | chemical digestion |
| Cloaca | Exit Point of waste. |

4 marks

The table has been completed accurately demonstrating an understanding of the organs and their functions in a bird's digestive system to achieve full marks.

(c) Complete the table below to show the names of organs and functions of a bird's digestive system.

(4)

| Name of organ | Function | |
|-----------------|------------------------------------|--|
| Stomach | Stores food | |
| Stomach muscles | Mechanical digestion/grinding food | |
| Proventriculus | Lieeps fu food intu stomaca | |
| Cloaca | Secretes fromous acid. | |

0 marks

The answers provided are all incorrect - no rewardable marks.

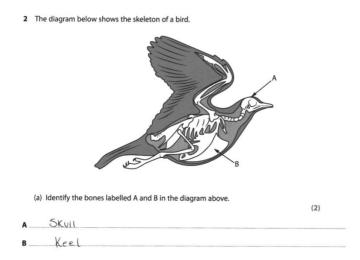




Question 2

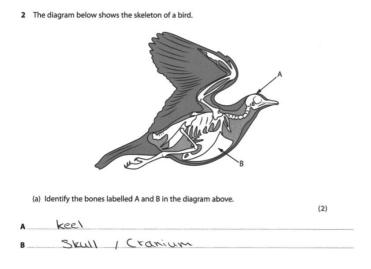
Q2 (a)

This was a memory recall question from section A1.2 of the unit content majority of learners scored 1 mark.



2 marks

The two bones have been identified correctly for two marks.



0 marks

No marks could be awarded for this response where the names of the bones have been identified against the wrong labels.





Q2 (b)

This 4 mark question from section A1.4 in the unit content was answered well with majority of the learners scoring either 3 or 4 marks and the average mark was 2.2. A good knowledge of the musculoskeletal adaptations to locomotion in birds was demonstrated.

| (b) Explain two adaptations of the musculoskeletal structure of a bird that make it able to fly. | | |
|-----------------------------------------------------------------------------------------------------|---------|--|
| | (4) | |
| 1 They have hollow bones which make them | Lighter | |
| and easier to felegy fly | | |
| 2 They have a furcular which is a fused | | |
| Done that allows them to flap their win | gs With | |

4 marks

A complete explanation of two musculoskeletal adaptations to be awarded 4 marks.

| (b) Explain two adaptations of the musculoskeletal structure of a bird that make it able to fly. | | |
|-----------------------------------------------------------------------------------------------------|-----------------------------------------|--|
| | (4) | |
| 1 Hollow Gones which air in flight | du v | |
| them being lightweight. | *************************************** | |
| 2 Air cowities instead of lungs which | 4 reduce | |
| reduce the weight of the birds and | and Flight. | |

2 marks

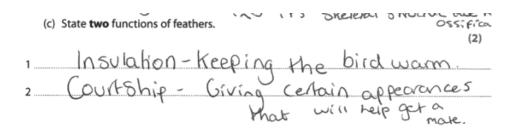
An understanding of adaptations in birds for flying has been demonstrated with a correct explanation in point 1 to gain 2 marks, but the second explanation is not a 'musculoskeletal' adaptation as required by the question so cannot be awarded any marks.





Q2 (c)

Majority of learners scored full marks for this question re functions of feathers from section A1.3 of the unit content.



2 marks

Two correct functions of feathers have been 'stated' for 2 marks although the response has been answered as if the question had been 'explain two functions of feathers'.

| | (c) State two functions of feathers. | |
|---|---------------------------------------------|-----|
| | | (2) |
| 1 | Wakerproof | |
| 2 | Light weight | |

0 marks

Two incorrect functions of feathers have been stated – no rewardable marks.





Q2 (d)

This is a 3 mark question from section B4.6 of the unit content required learners to demonstration an understanding of fast twitch muscle fibres. Majority of the learners were able to describe one, two or three features to gain marks and the average score for the question was 1.28.

| (d) Describe three features of fast twitch muscles. | 101 |
|-----------------------------------------------------|------|
| Muscles | (3) |
| fast twitch frames use anaerobic respiration. | This |
| means that they can fatigue. They have low | * |
| Mitchocondria and oxygen, This can result | I.Q |
| a build up of lactic acid | |
| | |

3 marks

This response clearly describes three correct features of fast twitch muscle fibres to achieve 3 marks.

| (d) Describe three features of fast twitch muscles. | (3) |
|------------------------------------------------------------|-----------------------------------------|
| | 114 i 1 1 1 5 5 5 5 6 6 6 6 4 4 4 4 1 1 |
| - newe cells to help detect Mossages. | |
| - neurons to send signals to brain. | |
| - 0x9 gion to keep muscle health & allive 1 sharp | for |
| Protection. | |

0 marks

This response demonstrates a lack of understanding of fast twitch muscle fibres with no rewardable marks available.



Question 3

Q3 (a)

The average mark for this question about ruminant bloat from section A2.8 of the unit content was 1.

| Cows are an example of a ruminant animal. | |
|------------------------------------------------------------------------|-----|
| 3 (a) State one cause and one symptom of ruminant bloat. | (2) |
| Cause | |
| Trapped gas in medininen | |
| Symptom | |
| Swelling of Stomach. | |
| | |

2 marks

An accurate 'cause' and 'symptom' of ruminant bloat have been stated to achieve 2 marks.

| Cows are an example of a ruminant animal. | | | | |
|-------------------------------------------|-------------------------------------------------------------------------------|----------------|--|--|
| 3 | 3 (a) State one cause and one symptom of ruminant bloat. | (2) | | |
| | Cause | | | |
| | Inherited typnelic | | | |
| | Symptom | | | |
| B | Build up of gas in rumen | voice i autum. | | |
| | | | | |

0 marks

'Inherited' is not a cause and, although 'build-up of gas in rumen' is a cause, it has been included under 'symptom' so there are no rewardable marks in this response.





Q3 (b)

This was a memory recall, pass targeted question about gestation length from section A5.1 in the unit content. Majority of the learners did not know / unable to recall the gestation period of a cow.



1 mark

Accurate recall of the gestation period of a cow to score 1 mark.

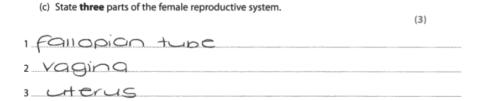


0 marks

No understanding of 'gestation period' demonstrated through an incorrect response.

Q3 (c)

Most learners were able to recall three parts of the female reproductive system to score the full 3 marks for this question.



3 marks

Three parts of a female reproductive system have been correctly stated as per the mark scheme to achieve 3 marks.

| (c) State three parts of the female reproductive system. | (3) |
|-----------------------------------------------------------------|-------------------|
| 1 pollicular | ***************** |
| 2 OVU 10K100 | |
| 3 luteal | |

0 marks

Three incorrect answers have been stated with no rewardable marks.





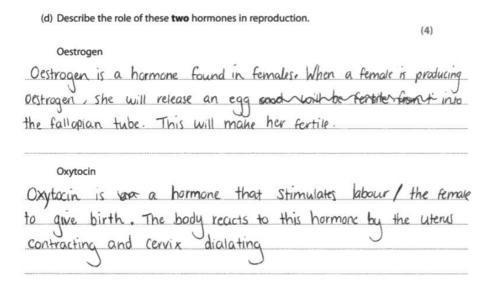
Q3 (d)

Majority of learners scored 0 for this 4 mark question on reproductive hormones from section A5.1 of the unit content which clearly demonstrated a lack of understanding of the role of these hormones.

| (d) Describe the role of these two hormones in reproduction. | (4) |
|---------------------------------------------------------------------|-------------|
| Oestrogen | , |
| Cestragen is responsible for rebuilding the lining | 9 |
| of the use vietes after ovulation. Destrogen is | , ordvæd |
| and released by overry and inhibits production | |
| FSH | |
| Oxytocin | |
| Oxytocin is responsible for unnary contraction | <u> </u> |
| for example during birth the levels of oxytocin increa | se to |
| expel the toetus, it causes it also causes pre | æ |
| lactation | |

4 marks

The roles of both hormones have been accurately described as per points included in the mark scheme to achieve full marks.



1 mark

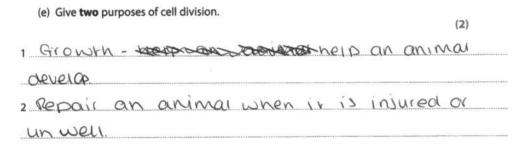
The role of oestrogen has been incorrectly described but the role of oxytocin re 'stimulating labour' has been awarded 1 mark.





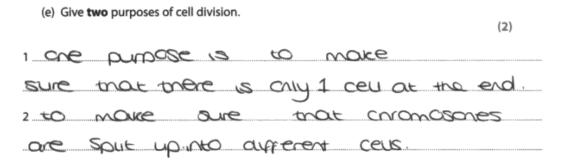
Q3 (e)

The average mark for this question was 1 with some of the learners scoring the full 2 marks by giving two purposes of cell division from section B3.4 in the unit content.



2 marks

Two accurate purposes of cell division have been given i.e. 'growth' and 'repair' to score 2 marks.



0 marks

The two purposes given are incorrect and scored 0.





Question 4

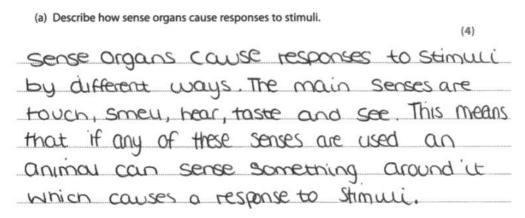
Q4 (a)

The average mark for this 4 mark question was 1.6 with majority of learners able to demonstrate an understanding of the concept of sense organs responding to stimuli from section A3.3 of the unit content to score 2 / 3 / 4 marks.

| 4 Cats have whiskers that allow them to respond to the environment around them to control body temperature. Reseptor - ことによる (a) Describe how sense organs cause responses to stimuli. |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (a) Describe how sense organs cause responses to stimuli. Record |
| The sense organs are know as resepones |
| reseptors and these detects change in the |
| environment. Heave impolies from the pere receptors |
| travel down the sensory never to the relay which is in the chos which desides how to report never these nerver |
| |
| impulses have to go across a synapes to |
| get from one neuron to another. Finally, the nerve |
| impulse is corried to the effector with reacts by |

4 marks

A good description which demonstrates a complete understanding of the concept to gain 4 marks i.e. 'receptors detecting stimulus', 'impulse along sensory neuron', 'CNS to the motor neuron', ' to the effector which reacts'.



0 marks

The question has been incorrectly answered with no rewardable marks available.





Q4 (b)

This 2 mark, pass targeted question did not perform as expected. It was considered a memory recall question from section A3.2 of the unit content re the role of the sympathetic nervous system and majority of learners scored 0. An element of understanding of the different parts of the nervous system was required to identify the function of the sympathetic nervous system.

| (b) Give two functions of the sympathetic nervous system. | (2) |
|------------------------------------------------------------------|-----------------------------------------|
| 1 Prepare 100 dy for fight or flight | *************************************** |
| 2 Shut down any was body functions | s that |
| energy auring fight /flight | .the |

2 marks

This response is accurate and complete re the functions of the sympathetic nervous system to achieve full marks.

| (b) Give two functions of the sympathetic nervous system. | (2) |
|------------------------------------------------------------------|-----|
| 1 Respond to pain | |
| 2 Respond to danger | |
| | |

0 marks

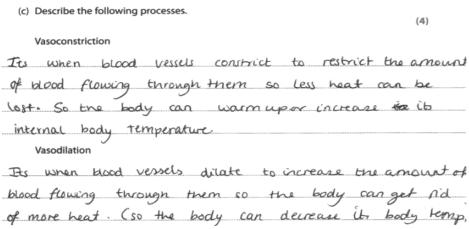
The answers given in this response are incorrect – no marks awarded.





Q4 (c)

This is a 4 mark question on vasoconstriction and vasodilation from section A7.3 of the unit content. Majority of the leaners scored between 1 and 0. Learners either confused the two processes with each other, wrote about the pupil in the eye or were unfamiliar with these terms.



4 marks

A complete and accurate description of both processes to gain 4 marks.

```
vascalisticità is the pupis in the eyes. This is a porasympathetic response, and so will come the species down. It makes the eye see less 30 the species is not pariched.

vascalilation the species is not pariched.

vascalilation of the pupis in the eyes. This is a sympathetic response and will prepare the body for fight or flight. It will enable the species to let in more light and therefore see more.
```

0 marks

This response is incorrect re 'the constriction and dilation of the pupil in the eyes' with no rewardable marks available.





Q4 (d)

This question required learners to state two types of neurons from section B4.5 in the unit content.

| (d) State two types of neuron. | (2) |
|---------------------------------------|-----|
| 1 Interneuron | 1-1 |
| Motor Neuron | |

2 marks

Two correct types of neurons have been stated to gain 2 marks.

| (d) State two types of i | neuron. | (2) |
|---------------------------------|--------------|-----|
| , Glial cells | /neuron | (2) |
| 2 Schwann | cells/neuron | |

0 marks

Both answers are incorrect and scored 0 marks.





Question 5

Q5 (a)

Majority of learners scored 1 out of the 2 available marks for an explanation of one way the structure of a red blood cell is related to its function.

| 5 | (a) Explain or | ne way the structu | ire of a red blo | ood cell is related | to its function. | (2) |
|---|----------------|--------------------|------------------|---------------------|------------------|--------|
| ſ | vo nuc | ieus, a | 2WOL | more | room | for |
| 4 | more | haemogl | obin, | therefor | e more | oxygen |

2 marks

This response identifies that the red blood cell has no nucleus and correctly explains the way this structure then allows more room for haemoglobin to carry oxygen i.e. the structure has been related to its function for full marks.

| 5 | (a) Explain one | way the st | ructure of a re | d blood cell is | related to its | function. | |
|-------|-----------------|------------|-----------------|-----------------|----------------|-----------|----------------------|
| | | - | | | | | (2) |
| ***** | Red 66 | sol . | cell | have | plas | ma (| Shich |
| | carries | the | was | te pro | ducts | 0) | uhich respiration |
| | such a | w C | oz wl | nich | can | be to | ansported |
| | Grove | n l | 20 b | 100ds+ | ream | and | expelled |
| | | | - | | | | |

0 marks

No understanding of the structure or function of red blood cells has been demonstrated in this incorrect response and therefore scored 0 marks.





Q5 (b)

This question was not well answered with majority of learners scoring 0 through being unable to recall the role of the sinoatrial node in the heart from section A4.4 in the unit content.

| (b) Give the | role of the | e sinoatr | jaLnode i | n the heart. | | | (1) |
|-----------------------------|-------------|-----------|-----------|--------------|---------|---------|--------------|
| Acts | as. | ar | Pare | maker | ' and | Keeps | 5 Hhythm |
| and pa | 4 | | | : | | | |
| 1 mark An accurat | e resp | onse | i.e. 'pa | cemaker | ' which | was awa | rded 1 mark. |
| (b) Give the r | ole of the | | | the heart. | | | (1) |

0 marks

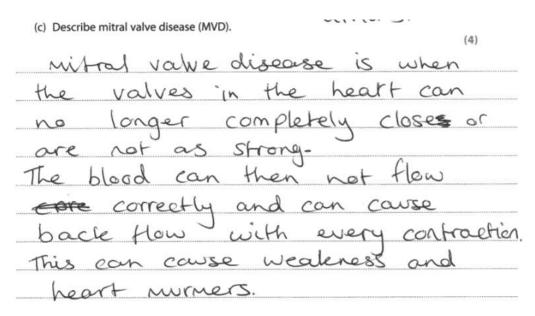
An inaccurate role has been given for the sinoatrial node in the heart – 0 marks awarded.





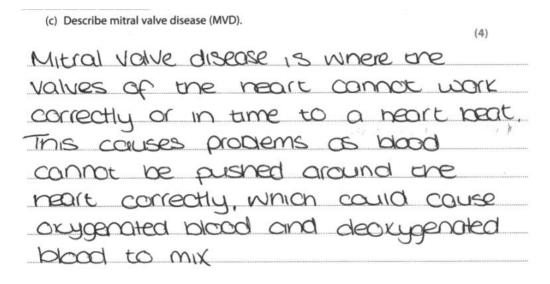
Q5 (c)

Learners were able to demonstrate their level of understanding of mitral valve disease from section A4.14 in the unit content and gain some of the 4 available marks.



4 marks

Four necessary descriptive points are included in this response i.e. 'no longer completely closes', 'backflow', 'weakness' and heart murmurs' – as per the mark scheme to gain full marks.



0 marks

The learner has been unable to accurately describe mitral heart disease to gain any marks for this question. No marks were awarded for 'cannot work correctly' because not closing / leaking had to be part of the description about why the valve cannot work correctly.





Q5 (d)

This was the first of two competency based questions with marks awarded for the response being at Level 1, Level 2 or Level 3. If no rewardable material was evident the learner scored 0 marks. The mean mark for this question was 1.9 which is a high Level 1 answer and demonstrated that the majority of learners were only able to demonstrate isolated knowledge of the concept of anaerobic respiration through a limited discussion with generic assertions and major omissions.

When an animal is being chased it respires anaerobically.

(d) Discuss anaerobic respiration.

(8)

Anderobic respiration is where the cells respire without using oxygen. The protect parameter body defects the need for energy and converts its shores of glycogen into glucose for the body to use. The glucose is converted to energy within the cells, however without using oxygen a by product called lactic acid is produced. Anaerobic respiration is not as efficient as aerobic respiration and therefore can otherwhy be used for short periods of time. The body builds up an oxygen debt whish using anaerobic respiration which needs to be paid back by breathing heavily or panting. This helps to reoxygenate the cells and remove the build up of lactic acid.

8 marks

This learner has demonstrated accurate and detailed knowledge of the concept of anaerobic respiration through a well-developed and logical discussion which includes all the relevant points about the process and how they link and interrelate. This is a Level 3 answer which was credited with 8 marks.





| When an animal is being chased it respires anaerobically. | lactice | |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------|--|
| (d) Discuss anaerobic respiration. | (8) | |
| Angerobie respiration is not using oxygen. Ancerobic | | |
| used when you are running but it does not we already oxygen going around the body. Americkie | | |
| that it no oxygen is being used a bad | | |
| being built up around the body. | 000000001117999000000000011113333333344000001113333344444444 | |

2 marks

This learner has attempted the question demonstrating isolated knowledge and understanding of the subject with major omissions re oxygen debt / short term process, / elimination of lactic acid. The discussion is limited with generic assertions rather than developing and linking statements. This is a Level 1 answer and was awarded 2 marks.

Q5 (e)

This was a pass targeted, memory recall question about cellular structure from section B1.1 of the unit content and majority of leaners were unable to identify mitochondrion/a as the organelle where ATP is produced.

| (e) State which organelle is the site for ATP production. | (1) |
|-----------------------------------------------------------|-----|
| mitochondria | |
| | |
| 1 mark | |
| The correct organelle has been stated. | |
| (e) State which organelle is the site for ATP production. | (1) |
| Kidney | *** |

0 marks

'Kidney' is an incorrect answer





Q5 (f)

Majority of learners were able to recall three structures involved in inhalation and exhalation in mammals and the average mark for this question was 2.2.

| (f) Give three structures involved in inhalation and exhalation in mammals. | (3) |
|------------------------------------------------------------------------------------|-------------------------------------------------|
| 1 Longs | 4004004-03-03-03-03-03-03-03-03-03-03-03-03-03- |
| 2 Dia phram | |
| 3 Intercostal muscles. | *************************************** |

3 marks

Three correct structures have been given.

| (f) Give three structures involved in inhalation and exhalation in mammals. | (3) |
|-----------------------------------------------------------------------------|-----|
| 1 Respicatory System Respiratory system | |
| 2 Interconstel muscles | |
| 3 | |

1 mark

Intercostal muscles is the only correct answer.





Question 6

Q6 (a)

Although learners were asked to 'compare' pangolins and armadillos (section C3.1 of the unit content) marks were awarded for descriptive points re each species as per the mark scheme.

| 6 Animals are classified into groups in order to be easily identified and studied. |
|---------------------------------------------------------------------------------------------|
| (a) Compare a pangolin to an armadillo. |
| (4) |
| Pangolins are fully covered in Keratinesed |
| Pangolins are fully Covered in Keratinesed Skin and coats, whereas amadillos |
| "Shell" is only hard and covered like this. |
| Armadillos crawl and have shaller legs |
| with a short tail, whilst Pangolins have |
| long legs and a long kerotiresed tail Pargalis |
| are found in hot conditions (e.g.desert) and |
| amadijos in humid leg. rainforest 1. |
| 4 marks |
| A good example of an accurate comparison between a pangolin and armadillo to gain full mark |
| 6 Animals are classified into groups in order to be easily identified and studied. |
| (a) Compare a pagedin to an armedillo |
| (a) Compare a pangolin to an armadillo. (4) |
| Armadillos are able to netreat Into a Sturdy ball |
| When under threat where as a Pangolin can not. |
| |

0 marks

Although a comparison has been attempted the statements are inaccurate as both species can 'retreat into a sturdy ball' and an armadillo is bigger than a pangolin.





Q6 (b)

This 4 mark question on 'distinguishing features of reptiles' (section C1.3 in the unit content) did not perform as expected with no learners scoring 4 mark. Many learners wrote 'exothermic' when they might have meant 'ectothermic' but they could not be credited for 'exothermic' as it is incorrect.

| (b) State four distinguishing features of reptiles. | ~ |
|------------------------------------------------------------|-----|
| | (4) |
| 1 Nagaskan Skaled skin | |
| 2 Margrago Margraggo Dorawarondad. | |
| 3 ectothermic | |
| 4 breathe with lungs. | |

3 marks

Marks were awarded for 'scaled skin', 'ectothermic' and 'breathe with lungs' as per the mark scheme.

| (b) State four distinguishing features of reptiles. | (4) |
|------------------------------------------------------------|-----------------------------------------|
| 1 exothermic | (4) |
| 2 do not produce milk | |
| 3 give birth to eggs, not live young | ····· |
| 4 70 FUC, ~~~~~ | *************************************** |

0 marks

There are no rewardable marks from the incorrect answers given in this response.





Q6 (c)

The average mark for this 3 mark distinction targeted question on variation from section C1.2 in the unit content was 1.6.

(c) Describe how variation in animals leads to evolution.

(3)

Variation in animals leads to evolution because those animals that have the stronger mutation or the stronger characteristic of the species survives and reproduces to give offspring with the same stronger variation/mutation. those with the weaker mutations or charecteristics will die and eventually all that will be left are the stronger animals of the species. therefore they have evolved to survive.

3 marks

This is a good example of an accurate description of how variation leads to extinction with marks awarded for 'mutation', 'stronger characteristic of the species survive' and 'reproduces'.

| (c) Describe how variation in animals leads to evolution. | (3) |
|---------------------------------------------------------------------------------|-----------------|
| variation in animals leads to ex | solution, |
| because when variation occurs | s, animals |
| start to mate with animals of a di | |
| which ultimately will make a new ser new species is created, it will lead to | ecies. When the |
| new species is created, it will lead to | evalution. |

0 marks

There are no rewardable marks from this inaccurate description of how variation leads to evolution.





Question 7

Q7

This was the second competency based question and the last question on the paper which had 8 available marks awardable for the overall accuracy, detailed knowledge and understanding plus a well-developed discussion with relevant points and how they interrelate re the structure and function of the integumentary system.

The mean mark for this question was 3.3 which is a low Level 2 answer and demonstrated that learners had some accurate knowledge and understanding about the integumentary system and provided partially / well developed discussions of this topic which is from section A1.3 of the unit content.

The integumentary system is the outer covering that protects the body.

| 7 | Discuss the structure and functions of the integumentary system. | |
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8 marks

The learner has demonstrated accurate and detailed knowledge of the structures and the functions of different parts of the integumentary system i.e. the layers of the skin and hair with a well-developed and logical discussion which includes all relevant points and how they link and interrelate. This is a level 3 answer which was credited with 8 marks.

The integumentary system is the outer covering that protects the body.

7 Discuss the structure and functions of the integumentary system.

The integumentary System in the Skin Consists of three layers Epidermis which is the top layer, Dermis which is the middle layer and the hypodermis or Sub-Cutaceous layer which is the bottom layer this protects the body from Chemical damage or toxcins and physical trauma. It protects the exterior of the body and protects the more dielicate tarks like Epithelial tissue, fendons, ligament, bones.

3 marks





The learner has demonstrated some accurate knowledge i.e. identifying the three layers of the skin and some functions but there are gaps and omissions re the functions of the layers and the discussion is only partially developed with some consideration of different aspects through an attempt to interrelate to tissue type.

Unit Summary

Based on the performance on this paper learners should:

- Be familiar with technical terms from the unit content such as 'peristalsis', 'vasoconstriction and vasodilation', 'anaerobic respiration' and 'variation'
- Be able to identify structures and know their function such as 'sinoatrial node', 'crop/gizzard/proventriculus/cloaca' and 'mitochondria'
- Be familiar with systems and parts of the systems such as the reproductive system, sympathetic nervous system, respiratory system and integumentary system
- Know 'gestation lengths' of a few common mammals
- Understand the role of the various reproductive hormones
- Read the question to ensure the answer given reflects what has been asked i.e. 'structure and function'
- Practice the levels-based, extended response questions to ensure a Level 3 answer includes a well-developed and logical discussion with accurate knowledge relevant to the context of the question plus clear links which consider a range of different aspects and inter-relationships with body systems. This will then gain the 6-8 marks for each of the two levels-based questions included in the paper
- Responses should be based on the command verb in the question i.e. 'state' does not require expansion of a point but explain does
- Identify the marks allocated to the question and the space available to guide the
 extent of the response required and ensure the answer is included in the appropriate
 point / label.







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