



**0172-32 Level 3 Technical Extended Diploma in Animal Management**  
0172-035/535 Level 3 Animal Management (Zoos and Wildlife) - Theory exam

March 2022 Mark Scheme

Q no.	Acceptable answer(s)	Guidance	Max mks	Ref
Q1 a)	Egg laying animal		1	310 2.3 AO1
Q1 b)	Accept any species of oviparous reptile	Non species-specific examples can be awarded for if all of the species are oviparous	1	310 2.3 AO1
Q2	Metabolic bone disease (1) occurs due to lack of UVB lighting (1)  Physiological stress/abnormal behaviours (1) will occur due to lack of day and night cycle/disrupted circadian rhythm (1)  <b>Any other relevant point</b>		4	310 2.1 AO2
Q3	<ul style="list-style-type: none"> <li>Woodchip/bark/substrate (1) to enable natural foraging/to provide suitable flooring for walking (1)</li> <li>Nest boxes/hides/shelter/foilage <u>on the ground</u> (1) to ensure privacy/security (1)</li> <li>Needs sufficient ground/floor space for exercise (1) to maintain health (1)</li> </ul> <b>Any other relevant point</b>	<p>Do not award marks for repeated answers.</p> <p>Maximum of two marks for statements. Answers must be specific to flightless birds, not birds in general.</p> <p>Only award marks for suitable features rather than unsuitable features</p>	4	310 1.3 AO2
Q4	<ul style="list-style-type: none"> <li>Quarantine of newly arrived animals (1) to ensure the animal is not carrying any transmissible diseases before introduction (1)</li> <li>Isolation of sick/ill animals (1) to contain the disease until the animal is not contagious/shedding disease (1)</li> <li>Use of barrier nursing techniques (1) to reduce pathogens spreading/transferring between enclosures (1).</li> <li>Hygiene measures/hand washing (1) to reduce fomites (1)</li> <li>Personal protective equipment/PPE (1) to reduce transfer of pathogens on clothing/from animal to carer (1)</li> </ul>	<p>Do not award marks for repeated answers</p> <p>Do not award for 'Prevent the spread of disease' without further context</p>	4	310 2.2 AO2

	<ul style="list-style-type: none"> <li>Maintain health of animals/Give vaccinations (1) to prevent shedding of disease (1)</li> </ul> <p><b>Any other relevant point</b></p>			
<b>Q5 a)</b>	<p>Mimics/copies/looks/sounds like an object /dangerous/unpalatable animal (1) to avoid predation/being eaten (1)</p> <p><b>Any other relevant point</b></p>		2	308 3.1 AO2
<b>Q5 b)</b>	<p>Any suitable species (eg milk snake)</p>	<p>Non species specific examples can be awarded for if all of the species show mimicry</p> <p>Accept camouflage in a suitable context (eg a stick insect looks a stick)</p>	2	308 3.1 AO1
<b>Q6</b>	<p><b>1 mark each for any of the following, to a maximum of 3 marks:</b></p> <ul style="list-style-type: none"> <li>Seasonality (1)</li> <li>Migration (1)</li> <li>Emerging diseases (1)</li> <li>Climate change (1)</li> <li>Habitat destruction (1)</li> </ul> <p><b>Any other relevant point</b></p>	<p>Do not award marks for repetitive answers</p>	3	308 1.3 AO1
<b>Q7</b>	<ul style="list-style-type: none"> <li>(Appendix I) contains species threatened with extinction (1) where trade is only permitted in exceptional circumstances (1)</li> <li>(Appendix II) contains species not necessarily threatened with extinction (1) where trade needs to be controlled (1)</li> <li>(Appendix III) are species that are protected in at least one country (1) where that country has asked for assistance in controlling trade (1)</li> </ul> <p><b>Any other relevant point</b></p>		6	308 2.2 AO2
<b>Q8</b>	<p><b>1 mark each for any of the following, to a maximum of 2 marks:</b></p> <ul style="list-style-type: none"> <li>Enclosure signage (1)</li> <li>Interactive signage (1)</li> <li>Presenter/keeper talks (1)</li> <li>Public feeds (1)</li> <li>Live animal demonstrations/shows (1)</li> </ul> <p><b>Any other relevant point</b></p>		2	316 1.2 AO1

<p><b>Q9</b></p>	<ul style="list-style-type: none"> <li>To educate visitors on an animal's natural environment/conservation (1)</li> <li>To educate visitors on an animal's natural behaviour (1)</li> <li>To enable visitors to feel they are inside the animal's habitat (1)</li> <li>To enable visitors to interact with the species/environment (1)</li> </ul> <p><b>Any other relevant point</b></p>		<p>2</p>	<p>316 4.3 AO1</p>
<p><b>Q10</b></p>	<ul style="list-style-type: none"> <li>Report the escape to a senior member of staff (1) to state which animal has escaped (1)</li> <li>Control/evacuation of visitors (1) to ensure visitor safety/manage areas effectively (1)</li> <li>Alert emergency services/police (1) in case animal escapes the zoo perimeter (1)</li> <li>Alert vet/gun team (1) to ensure the provision of firearms/darting equipment to tranquillise/kill escaped animal (1)</li> <li>Maintain visual contact with the animal at all times (1) to ensure location of the animal is known (1)</li> <li>Ensure accommodation is secure (1) to prevent further escape (1)</li> <li>Recapture the animal (1) to ensure visitor/animal safety (1)</li> </ul> <p><b>Any other relevant point</b></p>	<p>Maximum 4 marks if only statements provided.</p> <p>Do not award marks for "following zoo protocols".</p> <p>Award for actions that are not immediately undertaken eg risk assessments</p> <p>Do not award marks for repetitive answers</p>	<p>8</p>	<p>316 3.3 AO2</p>
<p><b>Q11</b></p>	<ul style="list-style-type: none"> <li>To maintain security of enclosures (1) to prevent animals escape/unauthorised entry (1)</li> <li>To ensure safety of animals (1) preventing injury from unsafe fixtures/fittings (1)</li> <li>To monitor the use of the enclosure by the animals (1) to be able to make changes to ensure high standards of welfare (1)</li> <li>To make appropriate amendments (to the enclosure) (1) in response to improved knowledge of animal husbandry/in line with AWA 2006 (1)</li> </ul> <p><b>Any other relevant point</b></p>	<p>Maximum of 3 marks for statements with no explanations given.</p> <p>Do not award for repetitive answers</p>	<p>6</p>	<p>316 4.3 AO2</p>
<p><b>Q12</b></p>	<p>Determines which animals should be kept in the zoo (1) dictated by the animal size/husbandry/space availability (1) and their education/conservation/research/entertainment value (1).</p> <p><b>Any other relevant point</b></p>	<p>Maximum 3 marks</p>	<p>3</p>	<p>316 1.2 AO2</p>
<p><b>Q13</b></p>	<p><b>For no awardable content, award 0 marks.</b></p> <p><b>Band 1: 1-4 marks</b> A limited range of considerations with a mostly descriptive answer showing clear gaps in knowledge and limited understanding. Candidate attempts to use technical terminology infrequently but mostly inaccurately.</p>	<p><b>Indicative content Welfare:</b></p> <ul style="list-style-type: none"> <li>Provision of five animal needs</li> <li>Husbandry and care</li> </ul>	<p>12</p>	<p>AO4</p> <p>316 1.2 3.1 4.1 310</p>

	<p>To access the higher marks in the band, the candidate demonstrates a wider range of considerations with superficial explanations, which may not all be valid. An attempt to provide some examples may be evident but may not be relevant.</p> <p><b>Band 2: 5-8 marks</b> Candidate considered a range of aspects of the topic with a clear discussion showing knowledge and understanding with some gaps. Technical terminology is used frequently with some inaccuracies.</p> <p>To access the higher marks in the band, discussion is supported with relevant examples with developed and valid links to the topic, including some justifications.</p> <p><b>Band 3: 9-12 marks</b> Candidate considered a wide range of aspects of the topic with a comprehensive discussion showing thorough knowledge and understanding. Technical terminology is used correctly and appropriately throughout with minimal inaccuracies.</p> <p>To access the higher marks in the band, the discussion is supported using a broad range of highly relevant examples with clear and detailed justifications.</p>	<ul style="list-style-type: none"> <li>• Health and safety – students, handlers and animals, zoonosis</li> <li>• Animal handling techniques</li> <li>• Legislation - Animal Welfare Act 2006, The Zoo Licensing Act 1981</li> <li>• Stress/injury to animals - repeated/frequent handling</li> </ul> <p><b>Education:</b></p> <ul style="list-style-type: none"> <li>• Engagement – learning through interaction</li> <li>• Hands on experience – inspires new generation</li> <li>• Human/animal connection</li> <li>• Opportunities to link to wider conservation</li> <li>• Promotes classroom discussions</li> <li>• Links to curriculum</li> </ul>		<p>1.2 1.3 2.1</p>