

0172-33 Level 3 Technical Extended Diploma in Animal Management
 0172-039/539 Level 3 Animal Management (Zoos) - Theory exam

March 2022 Mark Scheme

Q no.	Acceptable answer(s)	Guidance	Max mks	Ref
Q1	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <ul style="list-style-type: none"> • Proximity to power (1) • Proximity to water (1) • Proximity to light/windows (1) • Waste disposal (1) • Floor loading (1) • Passing traffic/vibrations (1) • Noise (1) • Air quality (1) • Environmental temperature (1) <p>Any other relevant point</p>		3	313 1.3 AO1
Q2	<p>1 mark each for any of the following, to a maximum of 2 marks:</p> <ul style="list-style-type: none"> • Wholesalers (1) • Importers (1) • Farms (1) • Specialist breeders (1) • Hobbyists/Private breeders (1) • Pet stores (1) • Wild caught (1) • Captive bred (1) <p>Any other relevant point</p>		2	313 5.2 AO1
Q3	<ul style="list-style-type: none"> • Uses <u>lungs</u> to get oxygen (1) enabling it to survive in poorly oxygenated water (1). • Hibernates/aestivates/burrows (1) enabling it to survive drought/extreme conditions/dry seasons (1). • Lobed/whip-like fins (1) allow it to propel/walk itself across land from one pool to another (1). <p>Any other relevant point</p>	<p>Maximum of 2 marks for adaptations without explanation.</p> <p>Do not award marks for explanations without correct adaptation.</p>	4	313 2.4 AO2

<p>Q4</p>	<ul style="list-style-type: none"> • They will sink to the bottom (1) therefore bottom feeders can access the food (1) whilst allowing other species access to nutrition (1) • They will sink to the bottom easily (1) as bottom feeders can only access food on/in the substrate (1) due to an inferior mouth position (1). <p>Any other relevant point</p>		3	313 3.1 AO2
<p>Q5</p>	<p>Senses/detects movement/vibration/water pressure changes/surroundings (1) which allows the fish to detect prey/avoid predators/move in a school/navigate (1).</p>		2	313 AO2 2.2
<p>Q6</p>	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <ul style="list-style-type: none"> • Environment (1) • Light (1) • Temperature (1) • Season (1) • Hormonal activity (1) • Food availability (1) <p>Any other relevant point</p>	<p>Do not award marks for sexual maturity or migration.</p>	4	314 4.2 AO1
<p>Q7 a)</p>	<p>Calcium (1) to make the eggshells stronger (1)</p> <p>Vitamin D (1) to enable calcium to be absorbed into the body (1).</p> <p>Any other relevant point</p>		4	314 1.2 AO2
<p>Q7 b)</p>	<ul style="list-style-type: none"> • Exposure to sunlight (1) • Access to wider range of food sources (1) <p>Any other relevant point</p>	<p>Do not accept answers not related specifically to eggshell quality.</p>	1	314 1.2 AO2
<p>Q8</p>	<ul style="list-style-type: none"> • Stress (1) due to inappropriate housing/social grouping (1). • Boredom (1) caused by lack of stimulation in housing (1). • Poor nutrition (1) leads to flaky skin/poor feather condition (1). • Parasites/disease (1) cause itching leading to overgrooming (1). <p>Any other relevant point</p>	<p>Do not accept repetitive explanations.</p> <p>Maximum of 3 marks for statements.</p> <p>Do not award for pain</p>	6	314 2.2 AO2
<p>Q9 a)</p>	<p>A disease that can be transmitted from humans to animals (1).</p>	<p>Award marks within the context of the answer</p>	1	316 4.1 AO1

Q9 b)	A living animal that transmits disease/pathogens from one host/animal to another (1).	Award marks within the context of the answer	1	316 4.1 AO1
Q10	<ul style="list-style-type: none"> • Use of firearms/sedation/capture (1) to get the animal under control quickly/return to enclosure (1). • Evacuation of public (1) to reduce the chance of injury/fatality (1). • Staff training/drills (1) to ensure everyone knows their role/carries it out effectively (1). • Informing authorities/police (1) as this is a requirement under the Zoo Licensing Act 1981 (1). • Lock down (1) to keep other animals/humans safe (1) <p>Any other relevant point</p>	<p>Award for descriptions of protocols in place of statements eg raise an alert (evacuation)</p> <p>Do not award for repetitive answers</p>	6	316 3.3 AO2
Q11	<p>Contain every individual animal within a breeding programme (1) and their biological/genetic data (1), all births/deaths/transfers between zoos (1), they are used to make breeding decisions (1) and allow the population status to be monitored (1).</p> <p>Any other relevant point</p>	<p>Breeding decisions may include genetic viability, avoidance of inbreeding, breeding success</p> <p>Do not award marks for repetition</p>	5	316 AO2 1.2
Q12	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <ul style="list-style-type: none"> • Political (1). • Economic (1). • Technological (1). • Socio-cultural (1). • Customer demand (1) • Supply of goods (1) • Competition (1) <p>Any other relevant point</p>	<p>Allow relevant examples of external influences</p> <p>Do not award for repetition</p>	3	364 3.1 AO1
Q13	<p>Profit/loss can be monitored (1) which enables business to take remedial action (1) to ensure that the business is successful/doesn't go bankrupt (1).</p> <p>Any other relevant point</p>		3	364 4.3 AO2
Q14	<p>For no awardable content, award 0 marks.</p> <p>Band 1: 1-4 marks 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>To access the higher marks in the band, the candidate demonstrates a wider range of considerations with</p>	<p>Indicative content</p> <ul style="list-style-type: none"> • Different sources • Captive bred vs wild caught • CITES • Import of Live Fish Act 1980 • Conservation status 	12	AO4 313 1.5 4.2 5.1 5.2 316 1.1 1.2 1.3

	<p>superficial explanations, which may not all be valid. An attempt to provide some examples may be evident, but may not be relevant.</p> <p>Band 2: 5-8 marks 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>Band 3: 9-12 marks 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"> • Welfare • Health • Record keeping • Legislation • Suppliers of goods/services • History and development of Zoological Collections • Zoo mission statement • Visitor expectations • Collection planning • Ethics • Research 		<p>364 1.2 4.1 4.2</p>
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