0172 Level 3 Animal Management Technical

Test title: 0172-035/535 Theory Exam (1)

June 2018

Q	Acceptable answer(s)	Guidance	Max mks	Ref
1	**Disadvantages** • Illness/disease (1) – Wild caught exotics can be a carrier/ have a disease not normally seen in captivity/ can introduce to captive collection (1) • No history (1) - With a captive bred species, the breeder is available to answer any questions you may have (1) • Problem feeders (1) – Wild caught species are much less likely to accept pre-killed prey readily (1) • Diet (1) – the wild diet cannot always be replicated (1) • Aggression (1)– are not used to being handled (1) • Welfare issues (1)– possibility of poor transportation (method or equipment)/ animals may die before making it to destination (1) • Stress/atypical behaviours (1) - due to now being in captivity (1) • Reduced life expectancy (1) – influences of external factors (1) • Carry heavier parasite loads (1) - Wild caught species can also pass on parasites to any other species you may own (1) • Legal issues (1) - Some animals may be listed under legislation and buyers will be unaware (1) • Cost (1) – Wild caught are usually more expensive/ harder to attain (1) • Species identification (1) – may not know the exact type of animal you are receiving (1)	*Any other appropriate response.* Max. **2** marks per disadvantage.	**6**	310 – 1.1 AO2
2a	Give birth to live young (1)	1 mark for correct definition, maximum of 1 mark.	**1**	310 – 2.3 AO1
2b	Accept any species that gives birth to live young (1)	1 mark for example, maximum of 1 mark.	**1**	

3	**Answer:** 1 mark for any of the following, maximum of 6 marks. • To ensure animals carrying a disease are unable to pass it onto the current collection (1) • To protect the current livestock in the shop (1) • To ensure the animal is free from parasites before coming into contact with other animals (1) • To allow time for clinical signs of diseases to develop (1) as incubation periods vary depending on the disease (1) • It allows staff to undertake a thorough physical examination/vaccinations/diagnostic examinations before the animal comes into contact with other animals (1) • It allows time for the animal to recover from transportation (1) • It allows staff to assess the baseline health parameters/appetite/behaviour of the new animal (1)	*Any other appropriate response.*	**6**	310 – 2.2 AO2
4	**Advantages** • Greater interest/educational value for the public (1) • Representing natural environment with interaction between species (1) • The animals are provided with enrichment through species interactions (1) • Development of zoo staff through management of mixed species exhibits (1) • More effective use of enclosure space (1) • Cost effective to have mixed species in an enclosure (1) **Disadvantages** • Possible competition for food between species (1) • Negative interactions between species (1) • Possibility of unnatural interactions between species (1) • Risk of disease/parasite transmission between species (1) • Risk of hybridisation between closely related species (1)	1 mark for each advantage, maximum of 2 marks and 1 mark for each disadvantage, maximum of 2 marks. *Any other appropriate response.*	**4**	316 – 2.1 AO2

5	Technique: • Food presentation – food is presented in a format that the animal has to work for it (1) e.g. puzzle feeder/ cardboard animal (1) • Sensory – presenting the animal with objects to stimulate the senses (1) e.g. placing scat in an enclosure (1) • Training – stimulating the mind through training (1) e.g. target training (1) • Enclosure design – placing various objects within the enclosure (1) e.g. swings/climbing frames/plants (1) • Socialisation – suitable grouping for species (1) e.g. solitary animals kept solitary/ social animals kept in groups/herds/packs (1)	1 mark for each example, 1 mark for each description (max of 2 per technique) *Any other appropriate response.* Examples **must** be appropriate for the species.	**4**	316-2.2 AO2
6	**Answer:** 1 mark for any of the following, maximum of 2 marks. • Physical characteristics (e.g. markings) (1) • Ear tags (1) • Transponders (e.g. microchips) (1) • Mutilations (e.g. ear notch) (1) • Tattooing (1) • Rings (1) • Wing/flipper tag (1) • Freeze /heat branding (1) • Dye/markers (1)	*Any other appropriate response.*	**2**	316 – 3.2 AO1
7	**Answer:** 1 mark for each of the following, maximum of 2 marks. • research • recreation • conservation • education		**2**	316-1.1 AO1
8	**Answer:** 1 mark for an **explanation** of any of the following, maximum of 5 marks. • Viewings • displays • interaction with animal stock • practical considerations for visitor needs (access for all) • retail opportunities • visitor facilities • Educational opportunities • VIP/ keeper for the day		**5**	316-1.2 AO2

9	**Answer:** 1 mark for any of the following, maximum of 4 marks. • Early detection through routine testing/blood tests/faecal tests (1) • Targeted screening: as a result of routine screening (1) • Isolate the animal (1) so biosecurity measures can be put in place (1) • Diagnosis of disease (1) • Diagnosis can inform treatment decision (1) • Ensure preventative treatment is still valid (1) • Check animal hasn't built a resistance to current regime (1)	*Any other appropriate response.*	**4**	316.4.1 AO2
10	1 mark for stating how biotic and abiotic factors differ. Biotic resources are living and abiotic factors are non-living (1)	*Any other appropriate response.*	**1**	308-1.1 AO1
	Answer: 1 mark for an example of a biotic factor. • Animals • Plants • fungi • bacteria • humans • virus	*Any other appropriate response.*	**1**	308-1.1 AO1
	Answer: 1 mark for an example of an abiotic factor. • sunlight • precipitation/rain • humidity • wind • carbon • nitrogen • water • lipids • proteins • carbohydrates • vitamins • minerals	*Any other appropriate response.*	**1**	308-1.1 AO1

11a	1 mark per definition, **Immigration** – the number of organisms moving into an area/habitat (1)	*Any other appropriate response.*	**2**	308-3.1 AO1
11b	1 mark per definition, **Fecundity** – the ability to produce an abundance of offspring/ high fertility/produce enough offspring to counteract high mortality rate (1)	*Any other appropriate response*		
12	**Answer** • Seasonality (1): breeding grounds differ from typical home range/ lack of resources/ increase in competition/ injuries or death from mating (1) • Migration (1): seasonal movement of animals to find resources (1) • Emerging diseases(1): diseases that can occur and kill/threaten wildlife populations (e.g. chytrid fungus in amphibians, ebola or avian malaria) (1) • Climate change(1): causes populations to move to more favourable conditions/ decreases food availability/ changes environmental conditions (1) • Habitat destruction(1): destruction of wild areas leading to changes in available resources (e.g. farming and logging) (1) • Influence of humans (1): poaching and exploitation for food/ fishing and hunting/ pollution/ competition over natural resources (1)	*Any other appropriate response.* Do **not** award more than **4** marks if candidate has only listed.	**8**	308-1.3 AO2

13	**Band 1:** 1-4 marks A basic explanation of a limited range of ethical considerations relating to keeping wild animals in captivity with clear gaps in knowledge and limited understanding of the topics shown. The candidate focuses on either captive or wild ethical considerations. Technical terminology is used infrequently or inaccurately. To access the higher marks in the band, candidates discuss some ethical considerations regarding the effects on wild populations and the animals in captivity, but these may not all be valid. **Band 2:** 5-8 marks A detailed explanation of a range of ethical considerations relating to keeping wild animals in captivity with limited gaps in knowledge and clear understanding of the topics shown. The candidate focuses on both captive and wild ethical considerations. Technical terminology is used frequently with minor inaccuracies. To access the higher marks in the band, the candidate begins to justify the ethical considerations of keeping animals in captivity. **Band 3:** 9-12 marks A comprehensive discussion of a wide range of ethical considerations relating to keeping wild animals in captivity with clear knowledge and understanding of the topics shown. The candidate focuses on both captive and wild ethical considerations in detail and considers the advantages and disadvantages of both. Technical terminology is used throughout with minimal inaccuracies. To access the higher marks in the band, the candidate provides a thorough justification of the ethical considerations of keeping animals in captivity.	**Indicative content** • Legislation • Zoo licensing Act 1981 – Conservation measures for zoos • CITES • In situ and ex situ conservation • Conservation strategies • Habitat destruction • Animal welfare • Ethical sourcing • Role of modern zoos	**12**	308 – 1.3, 2.1 & 2.2, 310 – 1.1, 1.2 & 1.3, 316 – 1.2, 1.3, 2.1, 2.2 & 3.1 AO4