0172 Level 3 Animal Management Technical

Test title: 0172-041/541 Theory Exam (1)

June 2018

Q	Acceptable answer(s)	Guidance	Max mks	Ref
1a	1 mark for suitable species	*E.g. fox, stoat, eagle etc.*	**1**	**308 3.1 (AO2)**
1b	2 marks for describing how population size affects other species: 1 mark for each of the following: • High rabbit population = high secondary consumer population • High rabbit population = low grass population	*Accept the converse.*	**2**	**308 3.1 (AO2)**
2	1 mark for each of the following: • Targeted towards a specific species/habitat which is endangered • Implemented at the local level which is good for endemic or locally rare species • Sets timeframes for work to be completed for specific species/habitat • Schemes usually run on a national level • Reports on the effectiveness of actions, so others can follow	*Any other appropriate response.*	**4**	**308 2.1 (AO2)**
3	1 mark for suitable example of convergent evolution.	*Answer must be species specific.* For example: Salmon/ dolphin both evolved fins Pigeon/ bat evolved wings.	**1**	**308 3.2 (AO1)**

4	2 marks for explaining the differences, 1 mark for each point: • Divergent Evolution – same ancestor and Convergent evolution – different ancestor • Divergent Evolution – species become less similar or Convergent evolution – species become more similar.	Accept: *Divergent evolution have the same ancestor whereas convergent doesn't etc*	**2**	**308 3.2 (AO1)**
5	1 mark for any of the following (2 marks max) • Blanket/towel • Gauntlets • (ventilated) cardboard box • Carry cage	*Any other appropriate response.*	**2**	**309 2.1 (AO1)**
6	4 marks, 1 mark for each of the following points: • Animal should be fit/free from injury • The ability to recognise and obtain suitable food • The ability to recognise and avoid predators • The ability to recognise individuals of its own species and select mates. • The ability to perform natural behaviours	*Any other appropriate response.*	**4**	**309 2.2 (AO2)**
7	1 mark for any of the following, up to 4 marks • Has no management of numbers taken from the wild • Reduces number of population • Risks endangering species • Promotes the spread of disease • Reduces the gene pool • Can lead to habitat destruction • Can lead to habitat fragmentation	*Any other appropriate response.*	**4**	**309 3.1 (AO2)**

8	1 mark for any of the following • Radio collar (1) – aerial used to track individual frequency on each collar (1) • GPS collar (1) – satellite transmits signal to track animal movements (1) • Coloured tag on ear (1) – individual number/colour allocated to each animal (1) • Physical features (such as coat pattern/ ear marks/ abnormalities) (1) • DNA in faeces/blood/fur (1) – collect samples for testing. (1)	*Any other appropriate response.*	**4**	**309 4.3 (AO2)**
9a	**Answer:** a. 1 mark for any of the following, maximum of 3 marks. • Agriculture • Industry • Regeneration • Urbanisation • Leisure use • Deforestation	Accept suitable example of each.	**3**	**328 2.2 (AO1)**
9b	1 mark for any of the following, maximum of 3 marks. • Reduced space/habitat • Prevent migration of species • Animals unable to find mates • Greater chance of genetic drift • Loss of resources • Spread of disease	*Any other appropriate response.*	**3**	**328 2.2 (AO2)**
10	1 mark for any of the following (2 marks max) • Wildlife and Countryside Act 1981 • Conservation of Habitats and Species Regulations 2010 • Protection of Badgers Act 1992 • Deer Act 1991 • Conservation of Seals Act 1970 • Wild Mammals Protection Act 1996 • Animal Welfare Act 2006 • Destructive Imported Animals Act 1932 • Veterinary Surgeons Act 1966. • Animal Health and Welfare Act (Scotland) 2006		**2**	**309 2.2 (AO1)**

11	1 mark for each correct answer. **Equipment:** • Ensure equipment is calibrated correctly • Ensure equipment isn't damaged/is working properly • Ensure equipment is suitable for the survey • Ensure equipment is ready to use/charged e.g.	*Any other appropriate response.*	**3**	**328 4.3 (AO2)**
12	1 mark for each point (max 4 marks): • Migration – animals are moving into or out of specific areas (1)/ animals will gather together to create large herds (1)/ migration route can have an effect on the population (1) e.g. high mortality rate (1). • Weather – changes in breeding cycles (1)/ young animals born in Spring susceptible to cold weather (1)/ animals coming out of hibernation too early to limited resources (1)/ animals going into hibernation to protect the population(1) • Resources – food may not be available at the time (1) abundance of food may lead to abundance of predators (1)/ shelter may or not be available (1) • Mating seasons – can impact on resources due to larger numbers gathering (1)/ increased aggression leading to mortality (1) • Hunting/fishing seasons – high numbers may be killed over a short period of time (1)	*Any other appropriate response.*	**4**	**328 2.2 (AO2)**
13	1 mark for each (max 3 marks): • Credit /debit card (e.g visa/mastercard) • Cash • Bank Transfer/Electronic transfer/BACS • Direct debit • Postal Orders • Cheque	*Any other appropriate response.*	**3**	**364 4.1 (AO1)**
14	1 mark for each advantage (max 3 marks): • Efficient way to keep financial records • Easy to audit • Requires less storage space. • Easy to generate orders/invoices/financial statements/employee pay records/inventory reports etc • Can automatically tally amounts • Can provide reporting functions. • Allows you to back up records/keep them in a safe place (in case of fire or theft).	*Any other appropriate response.*	**3**	**364 4.1 (AO2)**

15	1 mark for stating how biotic and abiotic factors differ. Biotic factors are living and abiotic factors are non-living (1)	*Any other appropriate response.*	**1**	308 – 1.1
	1 mark for an example of a biotic factor. Biotic – Animal (consumers – herbivores, carnivores and omnivores) (1) Plants (producers) (1) Decomposers (fungi and bacteria) and human influences (1) Pathogens & disease outbreaks (1)		**1**	
	1 mark for an example of an abiotic factor. Abiotic – Climate factors (sunlight, precipitation, humidity & wind) (1) inorganic substances (carbon cycle, nitrogen cycle and water cycle) (1) organic substances (lipids, proteins and carbohydrates) (1)		**1**	

16	**Band 1:** 1-4 marks A basic discussion of a limited range of concerns relating to the wildlife population changes. Clear gaps in knowledge and limited understanding of the topics shown. The candidate focuses on either native or non-native species. Technical terminology is used infrequently or inaccurately. To access the higher marks in the band, the candidate makes limited references to intervention strategies but they may not all be valid. **Band 2:** 5-8 marks A detailed discussion of a range of concerns relating to the wildlife population changes. Some gaps in knowledge and understanding of the topics shown. The candidate discusses both native and non-native species. They demonstrate a clear understanding of intervention strategies and the issues surrounding them. Technical terminology is used frequently but may not always be accurate. To access the higher marks in the band, the candidate makes some links to the ethics surrounding intervention strategies. **Band 3:** 9-12 marks A comprehensive discussion of a wide range of concerns relating to the wildlife population changes. Demonstrates clear knowledge and understanding of the topics shown. The candidate discusses both native and non-native species. They demonstrate a thorough understanding of intervention strategies and ethical considerations, including the issues that surround them. Technical terminology is used throughout with minimal inaccuracies. To access the higher marks in the band, the candidate makes clear reference to a population management plan with links to conservation strategies.	**Indicative content** • Wildlife population changes • Population management plan • Ethical implications of wildlife intervention strategies & habitat management • Rehabilitation; vaccinations/barrier nursing/treatment/assessment and preparation for release/rehabilitation. • National conservation strategy • Species habitat management • Potential outcomes e.g. extinction	**12**	AO4