

0173 Level 3 Technicals in Land and Wildlife Management
0173-001/501 Level 3 Land and Wildlife - 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 2 marks:</p> <ul style="list-style-type: none"> • Management of Health and Safety at Work (1) • Control of Substances Hazardous to Health (1) • Manual Handling Operations (1) • Personal Protective Equipment (PPE) at Work (1) • Control of Noise at Work (1) • Control of Vibration at Work (1) • Lifting Operations and Lifting Equipment (1) • Reporting of Injuries Diseases and Dangerous Occurrences (1) <p>Any other suitable answer</p>	<p>Guidance</p> <ul style="list-style-type: none"> • Do not accept abbreviations e.g. COSHH • Only accept Regulations and not Acts <p>Year is not required.</p>	<p>Max mks</p> <p>2</p>	<p>Ref 303 1.1 AO1</p>
Q2	<p>1 mark to a maximum of 1 mark</p> <ul style="list-style-type: none"> • Loose / un-tensioned starter cord (1) <p>Any other suitable answer</p>		<p>1</p>	<p>303 2.3 AO1</p>
Q3	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <ul style="list-style-type: none"> • Check the fuel type (1) Drain and replace / wash out tank (1) • Check the fuel mixture (1) Drain and replace (1) • Check the spark plug condition (1) maintain / replace (1) • Check air filter (1) clean/replace (1) • Check carburettor (1) change adjustors/jets (1) <p>Any other suitable answer.</p>	<p>One mark given for the check, up to a maximum of two (2) and one mark given for the associated action, up to a maximum of two (2).</p> <p>Four stroke strimmer oil checks are acceptable.</p>	<p>4</p>	<p>303 2.3 AO2</p>

Q4	<p>1 mark each for any of the following, to a maximum of 2 marks:</p> <ul style="list-style-type: none"> Working checks ensure it is safe to use (e.g. brakes work) (1) And that it is in effective working condition / running smoothly (1) <p>Any other suitable answer.</p>	<p>Loose nuts/bolts not acceptable.</p> <p>Checking oil when running not acceptable.</p> <p>Checking hydraulic leak is acceptable.</p>	2	303 2.2 AO2
Q5	<p>1 mark per reason up to 3 marks</p> <ul style="list-style-type: none"> Belts are more efficient (1) Easier to repair / replace / maintain (1) They do not require lubrication (1) Less noise (1) Less vibration (1) Does not catastrophically fail (1) 		3	303 1.2 AO2
Q6	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <ul style="list-style-type: none"> Cells (1) Tissues (1) Organisms (1) Individuals (1) Populations (1) Communities (1) Ecosystems (1) 	<p>Accept singular eg. 'cell', 'organism'.</p>	3	304 1.1 AO1
Q7	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <ul style="list-style-type: none"> Climate change (1) Emerging disease (1) habitat destruction (1) seasonality (1) migration (1) influence of humans (1) Catastrophic natural events (1) <p>Any other suitable answer.</p>	<p>Do not accept: 'Disease'</p> <p>Accept: 'new disease' or similar.</p> <p>Can only have one mark per reason.</p> <p>If the answer can be linked to any of the answers in the mark scheme, then points can be awarded. E.g. poaching/human influence</p> <p>Deforestation/habitat destruction.</p>	3	304 2.2 AO1

<p>Q8</p>	<p>1 mark each for any of the following, to a maximum of 6 marks:</p> <ul style="list-style-type: none"> • Carnivores have forward facing eyes (1) for judging distance (1) • Herbivores have eyes on side of face (1) to give better all-round vision to see predators. (1) • Carnivores have long / sharp teeth (1) for killing and cutting meat (1) • Herbivores have grinding teeth (1) for vegetation chewing (1) • Herbivores have developed methods / symbiotic relationships(bacteria) / specially adapted digestive systems (1) to break down food/cellulose (1) • Carnivores have developed methods / symbiotic relationships(bacteria) / specially adapted digestive systems (1) to break down food / meat (1) • <p>Any other suitable answer</p>	<p>Do not accept camouflage as both have developed to hide from the other.</p> <p>Do not accept speed as both have developed to escape or catch the other.</p> <p>Acceptable to take adaptations for specific species e.g. claws for gripping and horns or similar.</p>	<p>6</p>	<p>304 1.1 AO2</p>
<p>Q9</p>	<p>1 mark each for any of the following, to a maximum of 6 marks:</p> <ul style="list-style-type: none"> • Genetic variability describes naturally occurring genetic differences among individuals of the same species (1) This variation permits flexibility and survival of a population (1) in the face of changing environmental/ecological circumstances. (1) • Example: The peppered moth (1) had colour variations to camouflage it with the lichen on trees (1) (as resting places). With industrial soot replacing lichen (1) darker coloured moths survived and bred better than lighter individuals (1) so the populations became darker (1). The clean air act is now causing lighter coloured moths to be more successful again (1). <p>Any other suitable example.</p>	<p>Speed is an acceptable example of genetic variability within a species.</p> <p>One mark for giving a named species.</p>	<p>6</p>	<p>304 1.2 AO2</p>
<p>Q10</p>	<p>Answer: Up to 6 marks for the following:</p> <ul style="list-style-type: none"> • Species are not restricted to individual countries (1) where a species might be rare in one country, but not in the rest of the world (1) animals cross borders where they could be subject to different legislation (1) • Demand for products (e.g. Ivory) (1) causing reduction in populations / requiring species protection (1) Restrictions on the trade of endangered species intended to stop this (1) • Pollution effects (1) from one country can impact another country (1) So similar / common legislation required (1) • Strategies are there to protect endangered species (1) • IUCN e.g. Red List (1) • Education of global value of endangered species/habitats (1) 	<p>Accept suitable examples which illustrate the marking points listed.</p>	<p>6</p>	<p>304 3.2 AO2</p>

	Any other suitable answer			
Q11	<p>1 mark each for any of the following, to a maximum of 3 marks:</p> <ul style="list-style-type: none"> • Hedge/dead hedge (1) • Ditch (1) • River (1) • Bank (1) • Fence (1) • Wall (1) • Sea (1) 	<p>Do not award multiple marks for naming examples of the same type e.g. Dry stone wall, brick wall, concrete wall etc.</p> <p>Do not accept mountain.</p> <p>Do not accept road.</p>	3	310 1.1 AO1
Q12	<p>1 mark each for any of the following, to a maximum of 4 marks:</p> <ul style="list-style-type: none"> • Ease of access (1) unloading / loading by machinery / to reduce manual handling (1) • space for storage (1) of all components to be stored without damage / for reducing trip hazards (1) • Security (1) to stop theft (1) • Safety (1) as a legal requirement (COSHH) (1) • Ground conditions (1) for ease of access (1) • Weatherproof storage for some materials (1) to avoid damage/deterioration (1) <p>Location of storage points (1) to avoid damage/disturbance to flora and fauna (1)</p>	<p>One mark per consideration to a maximum of two.</p> <p>One mark per description to a maximum of two.</p>	4	310 2.2 AO2
Q13	<p>1 mark per description up to 5 marks</p> <ul style="list-style-type: none"> • Load bearing/strength has to take the load bearing of users of the bridge (1) • Dimensions to ensure it can take expected traffic (1) • Longevity – how long it will last in the environment (1) • Environment - Timber treatments could contaminate environment (1) • Surface finish – to ensure non-slip e.g. mesh (1) • Access to site for materials and equipment (1) • Cost is within budget (1) • Aesthetics selection of materials to blend in with environment (1) • Rules for designated areas (materials) (1) • Sustainable selection/recycling of appropriate materials (1) <p>Any other suitable answer.</p>	<p>Listing materials without saying why is not acceptable however a mark can be given if a reason is provided for a selection of a material.</p> <p>Answers need to be about deciding what quality of the material needs to be and not why you would use the material.</p>	5	310 2.3 AO2

Q14	<p>Band 3 (9-12 marks) A focussed and detailed discussion which shows thorough consideration of a wide range of relevant information, how this can be gathered and how it can then be used to consider the impacts on the local environment. Demonstrates good breadth and depth of knowledge and understanding of the techniques which could be used to assess the impacts, and undertake the work. Discussion is substantiated and supported with examples. There is detailed discussion of the relevant benefits and limitations of the recommendations. To access the higher marks in the band, the overall discussion is coherent and structured, with fully developed, relevant and supported discussion of the factors and strong, appropriate use of specialist terminology.</p> <p>Band 2 (5-8 marks) A relevant discussion which clearly shows some consideration of a range of relevant information, how this can be gathered and how it can then be used to consider the impacts on the local environment. Demonstrates reasonable breadth and depth of knowledge with reasonable understanding of the techniques which could be used to assess the impacts, and undertake the work. Some areas may be covered in more detail than others. Within this knowledge there is some evidence of discussion around the relevant benefits and limitations of the recommendations. To access the higher marks in the band the discussion will be presented in a clear format much of which is mostly detailed, contains some justifications and most of the usage of terminology is appropriate.</p> <p>Band 1 (1-4 marks) A brief discussion which shows little or no consideration of relevant information, how this can be gathered and how it can then be used to consider the impacts on the local environment. Demonstrates basic knowledge and understanding of the techniques which could be used to assess the impacts and undertake the work. The response is brief, under developed, lacks clarity and is not entirely relevant and/or accurate. There is little or no discussion around the relevant benefits and limitations of the recommendations.. The overall discussion is unstructured and incoherent. To access the higher marks in the band the discussion will be mainly relevant, accurate and include some relevant justifications.</p>	<p>Indicative content</p> <p>303 1.1, WLCA 1981 other possible legislation ppe 1.2, limitation of machinery</p> <p>304 1.2 factors influencing populations 2.2, 2.3 habitat change 3.1 WLCA 1981 4.2,4.3 habitat surveying.</p> <p>310 4.1 habitat management techniques 4.2 plan for work 4.3 select equipment.</p> <p>310 3.1 types of surfaces 3.2 prepare for work on surfaces, 3.3 select equipment and materials</p>	12	<p>303 1.1 1.2 304 1.2 2.2 2.3 3.1 4.2 4.3 310 3.1 3.2 3.3 4.1 4.2 4.3</p>