

Mark Scheme (Results)

June 2010

Principal Learning

Environmental and Land-based Studies
ES205 Plants and Animals and their Role
in Society

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

	<p>explanation for 3 marks e.g. Golf course - rye grass: fine, dense growth, colour, durable in terms of trampling – benefits greens; constant cutting, fertilising, watering, research - benefits growth and health of grass. Ornamental garden - rhododendrons: colourful/ornamental for landscaping/separating activities, quick growing, spread rapidly - benefits garden; fertilising, use of fungicides/insecticides, interplanting with other species, hybridisation – benefits health/quality and number of plants.</p>	3
Question number	Correct answer	Mark
4 (a)	<p>1 mark per effect up to 2 marks if just a list eg smell, pollution, waste. Up to 4 marks if some associated detail e.g. smell from ventilation of chicken sweat, use of fossil fuel for generating electricity. OR 3 effects + 1 developed OR 2 effects + both developed e.g. Manure dump in the open - when it rains pollutants and bacteria can get washed into streams/water supply, over a wide area...</p>	4
4 (b)	<p>Up to 2 marks for identifying responsibilities to e.g. environment, humane treatment of animals, owners of the farm, workers, customers/public. Up to 3 marks for explaining. Must explain the RESPONSIBILITY not just their actions e.g. responsibility to owners to make a profit – may need to adapt to changing market OR cost of change will erode profits. Responsibility to public to provide affordable/safe food – non-battery chickens may be too expensive for certain sectors OR battery chickens are prone to disease which may be passed to the public.</p>	5
Question number	Correct answer	Mark
5 (a)	<p>Name method (1 mark) and/or some description of it (up to 2 marks) e.g. measuring noise level, air quality, water quality, monitoring plant/animal species numbers/location, viewscore, Leopold matrix, assessing carbon footprint, traffic/people count, measuring footpath erosion.</p>	2
5 (b)	<p>Must be risks/hazards not limitations of method. 2 risks identified (1 mark each). Must be related to the technique in 5(a) e.g. noise level = danger from traffic; water quality = steep banks, flood waters, drowning; any outside activity = potential hazards of landscape (cliffs, rocks, falling, breaking leg), weather (sudden extreme changes, fog, lose way, hypothermia), animals (bulls, wasps, adders)</p>	2
5 (c)	<p>1 mark for a conservation practice e.g. (1) screening with trees/bushes, low level building, colour/design/layout of caravans/buildings; (2) do environmental impact study, protect certain areas; (3) pay for environmental monitoring for 5 years; (4) provide bins, signs, fines/penalties, cooperate with Env Agency/water company re: water sampling; (5) Offset carbon footprint eg use own wind/solar power; (6) charge traffic/parking – use money to subsidise park ranger or env. project; (7)</p>	

	<p>manage footpaths using fences/barriers/notices 1 mark for explaining benefit to the business, 1 mark for benefit to local community, 1 mark for a development e.g. Using wind/solar power may reduce electricity bill for caravan park therefore cheaper to stay therefore more campers come. During the off season the power can be fed into the local grid benefitting the local community. It will also provide an income for the park during the winter/less fossil fuels will be used which benefits the community.</p>	4
Question number	Correct answer	Mark
6 (a)	<p>Must be on “food web” not just on animals. Simple statements or list of effects, no grasp of links e.g. reeds killed off under caravan standings; less food for some animals so numbers go down; pollution/poisons can be passed through the food web. 2 marks – 1 mark per effect/statement</p> <p>Develop each statement with clear links eg tadpoles could disappear completely which in the long run may reduce the food for birds such as coots.</p> <ul style="list-style-type: none"> - use technical terms appropriately/correctly e.g. producers, consumers, biomass - overall view/qualifying statement e.g. web would become more simple with a few chains rather than a web OR caravan park might increase some numbers e.g. increase in rubbish leads to increase in seagulls, increase in organic matter in water, increase in algae. <p style="text-align: right;">2 marks</p>	4
6 (b)	<p>Levels marking – Level 1 – Identifies 1-2 issues (must be on “reducing”) in simple terms e.g. killing defenceless creatures is wrong, culling needs to be painless, young can be left unprotected and parentless. 1 mark per issue OR 1 issue developed = 2 marks</p> <p>Level 2 – 2 issues stated 1 developed. 3 marks <ul style="list-style-type: none"> - 2 issues stated both developed 4 marks - If only does 1 issue with several developments up to max. 3 marks because q. asks for “issues”. </p> <p>Level 3 – shows both sides of the argument e.g. killing may be wrong but if don’t reduce numbers an even larger number may die through overpopulation and lack of food OR on the one hand shouldn’t make animals suffer pain but on the other very few animals die of old age, nature is red in tooth and claw. 5 marks</p> <p>Comes to a conclusion, makes a judgement/evaluation/weights up the arguments. 6 marks</p>	6

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