



2010 Managing Environmental Resources

Intermediate 1

Finalised Marking Instructions

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2010 Managing Environmental Resources: Intermediate 1

Final Marking Scheme

Question 1

- (a) (i) Natural – nature reserve, river, trees.
Semi-natural – gardens, picnic area, aquarium.
Built – main road, castle, shops, museum, cycle path, park and ride, footpath, summer café, tourist information office.
3 for 2 marks
1 or 2 for 1 mark (2)
- (ii) Museum, shops, gardens, aquarium, picnic area, nature reserve, summer café, tourist information office. Any 2 (2)
- (iii) Park ranger, café worker. (1)
- (iv) Park and ride, cycle path, cycle park, bus stop, foot path. Any 2 (2)
- (v) Advantage – less traffic noise, less air pollution, safer, no traffic jams.
Disadvantage – fewer customers for shops, not convenient for shoppers. (2)
- (b) Education, signs, leaflets, tours, classes, welfare of wildlife. (1)
- (c) (i) Local. (1)
- (ii) Bins, provide bags, notices, leaflets, fines. (1)

Question 2

- (a) (i) They would continue to breed if some were left or equivalent. (1)
- (ii) £500,000. (1)
- (iii) Cost to bring them over, air transport emissions, local jobs for local people. (1)
- (iv) Increases because the rats are no longer eating the seabirds and eggs or same because no new species introduced or less because one species less. (2)
- (v) The herring gulls live on steep cliffs where the rats cannot go or shearwater easier to get at. (1)
- (b) SEPA. (1)
- (c) Capercaillie, lapwing, corncrake. (1)

Question 3

- (a) (i) Correct sectors (lines must meet in the middle) – 1, correct labels – 1. (2)
- (ii) 960 megawatts. (1)
- (b) Advantage – energy source does not have a cost, no air pollution, renewable energy source.
Disadvantage – high installation cost, turbines do not always work, not always windy, visual pollution. (2)
- (c) Acidification of lochs leading to death of wildlife.
Acidification of soil or run-off from trees leading to death/damage to trees.
Stone/rocks/building and effect
Cause and effect.

Dead plants, dead animals only 1 mark. (2)
- (d) Shower instead of bath, not standby for TV but switched off
(Not switch off lights)
Switch off lights when room not in use is acceptable

Any 2 (2)

Question 4

- (a) Nitrogen trifluoride, NF_3 . (1)
- (b) (i) Higher sea levels, flooding, melting ice-caps. (1)
- (ii) Any Earth Summit Rio, Copenhagen etc. (1)
- (c) Plasma A: Better picture (1)
B: Global consequences (1)
- LCD A: No NF_3 (1)
D: Not such a good picture (1)
- (d) (i) Collection by manufacturers, shops.
Disposal at local recycling facility. (1)
- (ii) Glass, plastic, rags, vegetable waste, metal, paper, cardboard, batteries, etc. (1)
- (e) Skin cancer. (1)

Question 5

- (a) (i) Duck. (1)
- (ii) Decomposer. (1)
- (iii) The direction of energy transfer. (1)
- (iv) Dead plants → mudworm → curlew → peregrine falcon.
1 mark of species, 1 for arrows (2)
- (v) Sea, river, mud, land, marsh. (1)
- (b) Sun. (1)
- (c) Movement, warmth, indigestible food. (1)
- (d) Community. (1)

Question 6

- (a) (i) Line 2 last reading. (1)
- (ii) Reading error, shadow from pupil etc, taken at different time of day or different weather. (1)
- (iii) In case of error, to increase reliability, to calculate an average. (1)
- (iv) Diagram – more found closer to the tree at position 1.
Results table – sample site 1 has lower light intensity. (2)
- (b) Temperature, water content of soil, soil pH. (1)
- (c) Random (not placing) – 1 mark counting inside – 1 mark. (2)
- (d) Plant a wide variety of plants eg meadow plants.
Encourage wildlife by planting, feeders etc. (2)

Question 7

- (a) (i) Young trees. (1)
- (ii) Bark, sawdust, timber – must have all 3. (1)
- (b) Furniture, housebuilding, construction, fuel. (1)
- (c) Orienteering, birdwatching, running, dog walking, picnics etc. (1)
- (d) (i) 1970-1979. (1)
- (ii) 1990. (1)
- (iii) 25 → 40. (1)

Question 8

- (a) (i) Buildings or examples, sand, land. (1)
- (ii) Close to airport, helipad, railway station. (1)
- (iii) Reduce noise pollution, safety, sufficient space. (2)
- (b) Advantage – jobs, money into local economy, recreation. (1)
- Disadvantage – noise, extra traffic. (1)
- (c) Environmental concerns etc/allows for objections/legal requirement. (1)
- (d) Site of special scientific interest. (1)
- (e) Advertise locally, special deals with the hotel, on-line advertising. (1)

Question 9

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|-----|------|---|------------|
| (a) | (i) | White beaked dolphin. | (1) |
| | (ii) | Light underbelly.
Straight dorsal fin. | (1) |
| (b) | (i) | Label and scale on x axis
Plot correct points and join | (1)
(1) |
| | (ii) | Increasing. | (1) |
| (c) | | Whaling, pollution in the oceans. | (1) |
| (d) | | WWF. | (1) |
| (e) | | International. | (1) |

[END OF MARKING INSTRUCTIONS]