



2012 Managing Environmental Resources

Intermediate 1

Finalised Marking Instructions

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Marking Scheme

Question 1

- (a) (i) Estuary/river/marsh/mud (Any 2) (2)
- (ii) Gardens/grazing land/disused railway (Any 1) (1)
- (iii) Railway museum/historic house/visitor centre/nature reserve/gardens (Any 1) (1)
- (iv) Bird watching/walking/fishing/photography (1)
- (v) Bird hide(s) built/putting signs up – do not disturb (1)
- (b) (i) Site of special scientific interest (1)
- (ii) Red Alert Group/Wildlife Trust/Ranger Service (1)
- (iii) Tree preservation order/Any bye law (1)

Question 2

- (a) (i)

Energy Sources	Percentage (%)
Nuclear Fuel	30
Renewables	20
Coal	24
Oil and Gas	26

Correct headings
Correct columns

1 mark
1 mark (2)

- (ii) 60 (1)
- (b) (i) Wind – visual pollution
Coal – acid rain
Nuclear – difficult to dispose of waste
Oil – leaks or spills
- All correct 2 marks, one or two correct 1 mark. (2)**
- (ii) Wind/wave/water/biomass/solar (Any 2) (1)
- (iii) No emissions/clean fuel/high energy output from a little fuel/reliable (1)

Question 3

- (a) (i) Producer, then Krill or animal plankton, then carnivore
All correct 2, one or two correct 1 mark (2)
- (ii) Plant plankton -> animal plankton -> sand eel -> puffin
Correct organisms 1mark, both arrows 1 mark (2)
- (iii) Decrease,
because fewer plants to feed krill to feed squid
1 mark (2)
1 mark
- (iv) Sun (1)
- (b) Oil kills plants/poisons birds or litter/plastic kills wildlife (1)
- (c) Blue whale (1)
- (d) International (1)

Question 4

- (a) (i) Insulated walls/triple glazing/turf roof (Any 2) (1)
- (ii) Turf/timber/paper (Any 1) (1)
- (iii) Recycle (1)
- (iv) Skin cancer, **must include skin** (1)
- (v) Bacteria/fungi/decomposer (Any 1) (1)
- (b) Never use standby, shower not bath, specific volume of water in kettle/do not leave lights on in unattended rooms. (2)

Question 5

- (a) (i) 1 - year, 2 – scale, zero to 2000 and 3 - correct plots. **One mark for each (3)**
- (ii) 5:1 (1)
- (iii) To check if numbers are going up or down/see if species is endangered. (1)
- (b) Fencing – place on individual trees or predators – cull them or disturbance – keep people out or overgrazing – cut back on sheep numbers (1)
- (c) Omnivore (1)
- (d) Provides more food or shelter for the birds or restores habitat (1)
- (e) WWF / FoE / Greenpeace (1)

Question 6

- (a) (i) Farming/agriculture (1)
- (ii) Built (1)
- (iii) Strawberry picker/tractor driver in 1990 **1 mark**
In 2010 bus driver/car park attendant **1 mark (2)**
- (iv) Less pollution in city centre/less fuel emissions/fewer car parks required in centre/less traffic **(Any 2) (2)**
- (v) Less peaceful for residents/less agricultural land (1)
- (b) To let people object/legal requirement (1)

Question 7

- (a) (i) Land/water/buildings/transport/fencing (Any 2) (1)
(ii) Lamber/shearer/dipper/shepherd (1)
(iii) Wool/mutton/lamb/ewe's milk (1)
(iv) To prevent pollution of the water in the stream. (1)
(v) SEPA (1)
- (b) Blackface to withstand the harsh conditions or Cheviot, hardy with more lambs (1)
- (c) (i) Downwards (1)
(ii) Any appropriate economic reason/sheep disease (1)

Question 8

- (a) (i) 33.3 or 33 (1)
(ii) In water (1)
(iii) Decrease because global warming means less rain so smaller habitat or increase because more rain and larger area to live in or stay the same because global warming and a rise in temperature will not affect their lifestyle (1)
- (b) Net (1)
- (c) So as not to destroy any part of an ecosystem/maintain populations (1)
- (d) Millennium forest (1)
- (e) Water vole/lapwing (1)
- (f) Habitat (1)
- (g) (i) Yellow edged wings 1 mark
total body length 50 mm and over 1 mark (2)
- (ii) Similarity – Spots on abdomen or paired spots 1 mark
Difference - Black darter has red spots, Azure has blue 1 mark (2)

Question 9

- | | | | |
|------------|--|---|------------|
| (a) | (i) Decreases | | (1) |
| | (ii) Decreases | | (1) |
| | (iii) Soil temperature/pH/light intensity | | (1) |
| | (iv) Quadrat | | (1) |
| | (v) Use a soil moisture probe/stick it in the soil/read the scale
(Any two)
then wipe the equipment before going on to B | 1 mark | |
| | | 1 mark | (2) |
| (b) | Correct scale, zero to twenty
all five labels, including type of litter
correct bars | 1 mark
1 mark
1 mark | (3) |
| (c) | More litter bins/fines/rewards for litter picks/education | (Any one) | (1) |

[END OF MARKING INSTRUCTIONS]