

Mark schemes

Q1.

- | | | |
|-----|--|---|
| (a) | kingdom | 1 |
| (b) | genus | 1 |
| | species | 1 |
| (c) | 3 million years ago | 1 |
| (d) | black-backed jackal | |
| | <i>ignore jackal</i> | |
| | <i>do not accept golden jackal</i> | 1 |
| (e) | any two from: | |
| | • drought | |
| | • ice age | |
| | • global warming | |
| | <i>if none of these awarded, allow 1 mark for climate change</i> | |
| | <i>ignore weather</i> | |
| | • volcanic activity | |
| | • asteroid collision | |
| | <i>if neither of these, allow catastrophic event or natural disaster for 1 mark</i> | |
| | • (new) predators | |
| | <i>allow named example</i> | |
| | <i>allow hunters</i> | |
| | • (new) disease / pathogen | |
| | <i>allow named example</i> | |
| | • competition for food | |
| | <i>allow lack of food</i> | |
| | • competition for mates | |
| | <i>allow lack of mates</i> | |
| | <i>ignore competition unqualified</i> | |
| | • lack of habitat or habitat change | |
| | <i>ignore environment change</i> | |
| | <i>ignore isolation</i> | |
| | <i>ignore pollution</i> | |

- (f) any **one** from:
- wolves ate humans
 - wolves get left-over food from humans
 - humans gave food to wolves
- 1
- (g) breed the least / less aggressive wolves
- 1
- breed (least / less aggressive) offspring
ignore repeat breeding of the original pair(s)
- 1
- [10]**

Q2.

- (a) a community 1
- (b) brambling and chaffinch 1
- (c) the brambling and the bullfinch cannot breed together to give fertile offspring 1
- (d) constant (from Jan) to Mar / (mid-)Apr
ignore straight 1
- increases (from mid-)Apr to / and May 1
- decreases from May / Jun to Dec 1
- allow answers in terms of month numbers*
ignore seasons
*if no other marks awarded allow for 1 mark constant, **then** increase **then** decrease*
- (e) B 1
- (f) D (because) present only May to Sep
allow D (because) present only May to Oct
*allow D (because) **not** present Oct to Apr / May*
allow D (because) present only in summer
*allow D (because) **not** present in winter*
allow D (because) not present for all the year
allow D (because) only present for some of the year 1

[8]

Q3.(a) *view with the table*

kingdom

1

genus

1

in this order only

(b) Linnaeus

1

(c) *Elrathia kingii*

1

(d) trilobite **A** was found in older rocks than trilobite **B**

1

trilobite **B** is more complex than trilobite **A**

1

(e) sediments

1

soft parts

1

minerals

1

in this order only(f) any **three** from:

- drought
- ice age
- global warming

*if none of these, allow climate change for 1 mark**ignore weather*

- volcanic activity
- asteroid collision

*if neither of these, allow catastrophic event **or** natural disaster for 1 mark*

- (new) predators
allow named example
allow hunters

- (new) disease / pathogen
allow named example

- competition for food
allow lack of food
- competition for mates
allow lack of mates
ignore competition unqualified
- lack of habitat or habitat change
ignore isolation
ignore pollution

3

- (g) no / insufficient evidence
allow lack of evidence

or

cannot perform experiment to find out
allow no-one was there to observe

1

[13]