

1. (a)

Classification group	Name
Class	<i>Mammalia</i>
Order	<i>Primates</i>
Family	<i>Lemuroidea</i>
Species	<i>catta</i>

*all 4 correct = 2 marks*  
*2 or 3 correct = 1 mark*  
*0 or 1 correct = 0 marks*

2

(b) Lemur catta

*ignore capitalisation / non-capitalisation of initial letters*  
*ignore italics / non-italics*  
*ignore underlining / non-underlining*

1

(c) carried by (favourable) currents on masses of vegetation

*allow description of currents from Figure 2*  
*ignore swimming*

1

(d) isolation of different populations

1

habitat variation between lemur populations

*allow examples – biotic (e.g. food / predators) or abiotic (e.g. temperature)*

1

genetic variation or mutation (in each population)

1

better adapted survive (reproduce) **and** pass on (favourable) allele(s) to offspring

*allow natural selection **or** survival of the fittest **and** pass on (favourable) allele(s) to offspring*  
*allow gene(s) / mutation as an alternative to allele(s)*

1

(eventually) cannot produce fertile offspring with other populations  
*allow cannot reproduce 'successfully' with other populations*

*ignore cannot reproduce unqualified*

1

[9]

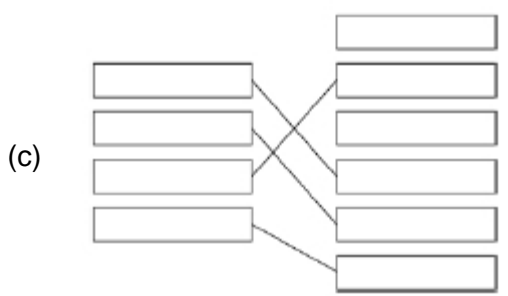
2.

- (a) Carl Linnaeus
- (b) Lithops

1

*extras cancel  
ignore capitalisation / non-capitalisation*

1



*1 mark per line  
extra line from adaptation negates the mark for that adaptation*

1  
1  
1  
1

- (d) any **two** from:
  - cooler underground / at night
  - or**
  - the jerboa can keep cool
  - loses less water
  - or**
  - sweats less
  - less likely to be seen (by predators / prey)

2

- (e) behavioural

1

[9]

3.

- (a) (i) variation (in population) / mutation

1

longer nosed individuals get more food / leaves  
*allow longer nosed individuals more likely to survive*

1

(these) survivors breed (more)

1

pass on genes / alleles / DNA (for long nose)  
*allow pass on mutation*

1

- (ii) Phiomia / ancestor stretched its nose (during its lifetime) to reach food / leaves

1

passed on (stretched nose) to offspring  
*allow offspring inherit (stretched nose)*  
 do **not** allow ref to genes

1

(b) (i) insufficient evidence / no proof  
*ignore other theories, eg religion*  
 do **not** allow no evidence

1

mechanism of inheritance not known  
*allow genes / DNA not discovered*

1

(ii) God made all living things / them  
*allow creationism*  
*ignore religion*

1

[9]

4.

(a) fossils show change over time.

1

(b) covered in sediment / mud or sinks into the mud

1

soft parts decay / are eaten  
**or**  
 bones / hard parts / shell do not decay

1

minerals enter bones / parts are replaced by minerals / mineralisation  
*accept turns to rock*  
*allow 'is an impression' / 'imprint' / 'cast'*

1

(c) skin is soft / skin not preserved / not fossilised / skin decays  
*accept not enough / no evidence / no-one has seen one*  
*allow 'this fossil is only bones'*

1

- (d) any **two** examples of:  
*accept 2 physical factors or 2 biological factors or one of each for full marks*

physical factors such as volcanic activity (allow volcanoes) / earthquakes / asteroid (collision) / ice age / temperature change

*ignore pollution*

**and / or**

biological factors such as predators / disease / named pathogen / competition/ lack of food / mates / cyclical nature of speciation / isolation / lack of habitat or habitat change

*if no other answers given allow natural disaster / climate change / weather change / catastrophic event / environmental change for 1 mark*

2

**[7]**

**5.**

- (a) (i) natural

1

- (ii) simple

1

- (iii) three billion

1

- (b) any **two** from:

- reference to religion
- insufficient evidence / couldn't prove it / no proof  
*ignore no evidence*
- mechanism of inheritance / variation not known  
*allow genes / DNA not known about*
- reference to other theories
- reference to Darwin's status

2

- (c) (i) tree

1

- (ii) hippopotamus **and** pig  
*both required, either order*  
*allow hippo*

1

- (iii) new evidence from fossils

1

**[8]**

