

# Conservation

## Mark Scheme 1

Level	International A Level
Subject	Biology
Exam Board	CIE
Topic	Biodiversity, classification and conservation
Sub Topic	Conservation
Booklet	Theory
Paper Type	Mark Scheme 1

Time Allowed : 46 minutes

Score : / 38

Percentage : /100

Grade Boundaries:

A*	A	B	C	D	E	U
>85%	77.5%	70%	62.5%	57.5%	45%	<45%

- 1 (a) 1 large, so easy to detect ;  
2 taken by collectors ;  
3 destroyed due to smell ;  
4 habitat destruction / named example ; e.g. effect of grazing / building / agriculture  
5 AV ; e.g. not easily pollinated / detail of *Rafflesia* / flowers infrequently [3 max]

- (b) (i) diversity of ecosystems in a region ;  
the number of different species in each ecosystem ;  
the genetic diversity within populations of each species ; [1 max]

- (ii) 1. (some, species / plants / animals may have) uses in the future ;  
2. medical uses / example ;  
3. resource material ; e.g. wood for building / fibres for clothes / food (for humans) / agriculture ;  
4. ecotourism ;  
5. maintain, gene pool / genetic diversity ;  
6. prevention of natural disasters ;  
7. aesthetic reasons ;  
8. to maintain stability in, ecosystems / food chains ; [4 max]

[Total: 8]

CHEMISTRY ONLINE  
— TUITION —

- 2 (a) 36 ;;  
allow one mark for number not rounded up i.e. 35.7  
**or**

allow working of  $\frac{X}{7} \times 100$

[2]

- (b) 1. reduction in extent of ice sheet ;  
2. reduction in number of, seals / prey / food **or** increased competition for food ;  
3. idea of increased distance to travel to find food ;  
4. loss / destruction, of breeding sites ;  
5. result of named human activity ; e.g. mining / drilling / killing / building / pollution  
6. disease ;

[3 max]

- (c) *applies to U. maritimus but accept ora*

1. DNA linear ;
2. DNA in nucleus **or** has, nuclear membrane / nucleus ;
3. DNA, associated with protein / in chromosomes ;
4. ribosome, 22 nm diameter / 80s ;
5. membrane bound organelles / named organelle ;
6. no cell wall ;
7. size up to 40µm ;

[3 max]

**[Total: 8]**

CHEMISTRY ONLINE  
— TUITION —

- 3 (a) 1. pools drying up ;  
2. pools, affected by the sea / more salty ;  
3. disease / parasite, (causing high death rate) ;  
4. changes to sand dunes ; e.g. by humans or natural causes  
5. increase in predators ;  
6. decrease in food ;  
7. named pollution ; e.g. acid rain affecting pH of pools  
8. named human activity ; e.g. taking toads / road kill / food for humans  
9. increased competition ; [3 max]
- (b) 616 or 617 ;;  
*allow one mark for working if incorrect answer* [2]
- (c) (i) idea of feeding on other organisms ;  
to obtain organic compounds ; [2]
- (ii) animalia **and** fungi ; [1]
- (d) people more interested in vertebrates  
**or**  
vertebrates, larger / more visible ; [1]
- [Total: 9]

CHEMISTRY ONLINE  
— TUITION —

- 4 (a) 1 more nests in, areas of low salinity/less salty areas ; **ora**  
2 comment about result for salinity 16-20 not following trend ;  
3 2 paired figs with units ; *linked to 1*

[3]

(b) (i)  $\frac{(31 - 8)}{8} (\times 100)$

287.5/288 ;;

*allow one mark for suitable working if incorrect answer*

[2]

(ii) *any two from*

- 1 (ensure) low salinity or more freshwater ;
- 2 nest sites protected ;
- 3 education/ecotourism ;
- 4 assisted breeding ;
- 5 ban on hunting ;
- 6 preventing pollution ;

[2 max]

**[Total: 7]**

CHEMISTRY ONLINE  
— TUITION —

- 5 (a) 1 loss of habitat ; **A** deforestation  
2 building / industry / farming / localised use of wood ; *ignore logging / timber production*  
3 difficulty in finding food ; **A** increased competition **R** no food  
4 poaching / hunting ;  
5 ref. ivory trade ; [3 max]
- (b) 1 of no use to humans ;  
2 protected in burrows ;  
3 variety of food ;  
4 small quantity of food required ;  
5 short gestation ;  
6 large number of offspring ;  
7 camouflaged ;  
8 (sophisticated) early warning system ; [3 max]

**[Total: 6]**

CHEMISTRY ONLINE  
— TUITION —