



CHEMISTRY ONLINE
— **TUITION** —

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BIOLOGY

GENETICS, BIODIVERSITY & CLASSIFICATION

Level & Board	AQA (A-LEVEL)
TOPIC:	SPECIES AND TAXONOMY
PAPER TYPE:	SOLUTION - 1
TOTAL QUESTIONS	6
TOTAL MARKS	27

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Species and Taxonomy - 1

1.

(a) Binomial

2.

(a) Top to bottom C N D I

(b)

- More similar than with any other species
- High variation in species N

3.

(a) It shows smaller groups within larger groups with no overlap between groups.

(b)

Family: phonetic

(c)

Sine song is very similar/ same length for both so closely related but have different peaks in pulse song.

(d) Three peaks in pulse song occur at the same time since both female/ songs identical/ male peaks are different therefore no make song to stimulate mating.

4.

(a)

X = *liasis mackloti* and *liasis olivaceus* share a common ancestor

Y = *liasis mackloti* and *liasis papuana* share a recent common ancestor

I am Sorry !!!!!

(b)

Domain	Eukaryote
Kingdom	Animal
Phylum	Chordata
Class	Reptilia
Order	Squamata
Family	Python

(c) Genus / genera**(d)**

- DNA sequence
- Amino acid sequence
- Base sequence of mRNA

5.

(a) The fact that all these species of field mice in Europe have names starting with Apodemus tells us that they belong to the same genus. In phylogenetic classification, closely related organisms are grouped into the same genus.

OR

They have the same genus and have evolved from a common ancestor.

I am Sorry !!!!!

(b)

Taxon	Name of Taxon
Domain	Eukarya
Kingdom	Animalia
Phylum	Chordata
Class	Mammalia
Order	Rodentia
Family	Muridae

(c)

- Sizes of parts of bodies overlap
- Calculation of correct head and body: tail ratio show that
- They're almost identical proportions

(d) The two mice populations could be interbred. Then, it would have to be determined whether or not the offspring is viable/fertile. If their offspring is viable, they are from the same species.

6.**(a)** PKNJ**(b)** *Lutra lutra*.

I am Sorry !!!!!



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- Founder & CEO of Chemistry Online Tuition Ltd.
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