

## Biology Notes

### **Cells (91156)**

#### Question 1

- first diagram is too small to label (bases, hydrogen bonds) → poor diagram
- spread out
- phosphates should be labeled
- is there a new writer for the exam?
- gene expression needs to draw the DNA structure anyways

#### Question 2

- seemed a bit too easy to explain what is happening in the diagram
- a big question to deconstruct
- second and fourth bullet points are extremely similar
- could have ordered the bullet points a bit differently

#### Question 3

- not a bad question
- glad aerobic cellular respiration is being used instead of regular respiration

#### Overall

- the resource material was very good this year compared to last year

### **Genetic variation (91157)**

#### Question 1

- fairly straightforward and everyone liked it
- what constituted a good annotated diagram to reach Merit
- diagram is good for some of the weaker students to provide evidence
- very long question

#### Question 2

- text heavy to start but it isn't a difficult text
- unusual graph
- a lot of people aren't sure what a polar bear, walrus and sea mammals are (provide pictures) to remove the barrier from students

#### Question 3

- discussion of how migration could affect diversity of the population (last bullet point) could have been split into two bullet points (two separate concepts)
- a leap to have them understand they are flight-less and not moving but are being moved by human assisted migration

#### Overall

- two evolution instead of having more monohybrid cross questions

## 91159 (gene expression)

### Question 1

- a lot of overlap with the 91156 paper
- small space to write for part a but then massive amount of space for the diagram so they may spend a disproportionate amount of time on the later

### Question 2

- could have said very clearly the bees have exactly the same genotype or the same genotype instead of putting it into the table (put it at the top)
- very hard question for students
- given they have the same genotype (reiterate again this information so it is clear and easily accessible)

### Question 3

- there is way too much empty space for the first question ... combine into one of the bullet points of 3b
- some people may have missed part a because it was so small and the only question across the two pages

### Overall

- very long paper so students may skip questions to fully finish questions
- can certain terms be bolded
- how to fix (suggestion): unlabeled diagram with the parts or decrease the space

## 91603 (plants and animal response)

### Question 1

- pretty picture but the picture isn't related to the material (it is confusing with the species name)
- resource stimulus takes a long time to get through (read)
- question is straightforward but is too hard to finish due to time constraints
- be clearer to identify and explain two other types of relationships
- take the latin names out

### Question 2

- difficulty to interpret "discuss the advantages and disadvantages males and females hierarchy" ... disadvantages was hard ... would be easier to discuss just the advantages (takes time to think of them)
- hierarchy chart is easy to interpret but it takes time to do that
- will give the order get an Achieved or is that required to get a higher mark
- give less bullet points but be more constructive (don't move describe, explain and then back to identify; move to justify or evaluate)
- lot is needed to get M5 but maybe not to get to E

### Question 3

- nothing to comment

### Overall

- more credits but don't have more writing time for it
- no question specific to plants
- standard could be trimmed

## **91605 (speciation)**

### Question 1

- nothing

### Question 2

- very long
- describe divergent evolution and refer to the resource material

### Question 3

- double page of resources!!!
- assume they are the same species ... they are all different species
- species are not consistent throughout the question and you don't know how they are related
- need to work out which places they came from (need to overlay the two diagrams)
- too much back and forth across the pages and it is much too complex for the students
- it is a level 4 question (practice scholarship or on a scholarship paper)
- not enough time to analyze and write in 20 minutes
- only common names provided and not the latin names

## **91606 (human evolution)**

### Question 1

- skull picture at the top was hard to get detail from
- question was well written otherwise
- loved it was just Skull A and Skull B
- third bullet point should be switched to bipedalism first

### Question 2

- good for pictures to explain / quick to interpret
- great for a lower literacy student
- disadvantages are possibly hard for students to answer ... discuss the effects of cultural evolution
- the nicest question of the paper

### Question 3

- lots of stuff to read...again!
- go back to three bullet points
- two achieved questions (in one bullet points), then describe x2, and explain
- nothing about environmental changes is referred to in the resource
- "The Denisovans also left Africa" ... ???
- admixture is a tertiary term ... use interbreeding

## **Scholarship**

### Question 1

- some kids were happy
- liked there was enough information for the questions
- clear content
- concern was it was too focused on speciation and nothing really on genetics, animal behaviour (unbalanced)

### Question 3

- “researchers concluded the bones were from bodies”.... This was disproved in 2015
- “humanesque” label on the diagram could have been better labeled as human-like