HILLCREST HIGH SCHOOL

NATURAL SCIENCE EXAM

MEMO

GRADE 8 **JUNE 2022**

EXAMINER: MRS SMITH / MRS PRIOR **TOTAL: 100 MARKS**

MODERATOR : MRS HARMSE **TIME : 2 HOURS**

SECTION A **(50)**

Q1.			**Q2.**		
1.1	B		2.1	D	
1.2	D		2.2	A	
1.3	C		2.3	E	
1.4	C		2.4	I	
1.5	B		2.5	C	
1.6	C	(6)	2.6	H	(6)

Q3.

3.1 COMMUNITY

3.2 VIRUS

3.3 YEAST

3.4 PHOTOSYNTHESIS (4)

Q4.

4.1. Food web (1)

4.2. Grass (1)

4.3. grass → locust → lizard → mongoose

OR

grass → termite → guinea fowl → leopard

(1 = grass)

(1 = arrows)

(2 = correct consumers) (4)

4.4. guinea fowl (1)

4.5. There would be a decrease in number of grass and increase in population of lizard. (2)

4.6. LION, LEOPARD or MONGOOSE (1)

Lion and leopard stalk prey and kill prey with sharp teeth and claws.

OR

Mongoose hunt insects by putting their noses to the ground and sniffing until they find them. (2)

Q5.

5.1. 1 – Lion/Hawk/Shark

2 – Secondary consumer

3 – Herbivore

4 – Autotroph (4)

5.2. NO (1)

There would not be enough energy for the carnivores, as there would not be enough food available for them to eat. (1)

Q6.

6.1. Desert or dry/hot area. (1)

6.2. Plant has thorns, no leaves this helps to protect the plant from being eaten and prevent loss of water.
OR

Plant stores water in its thick, fleshy stems so does not dry out/dehydrate. (2)

6.3. Mimicry (1)

6.4. Moth looks like an owl with big eyes, this deters the predator away. (2)

Q7.

7.1. Kwazulu-Natal (1)

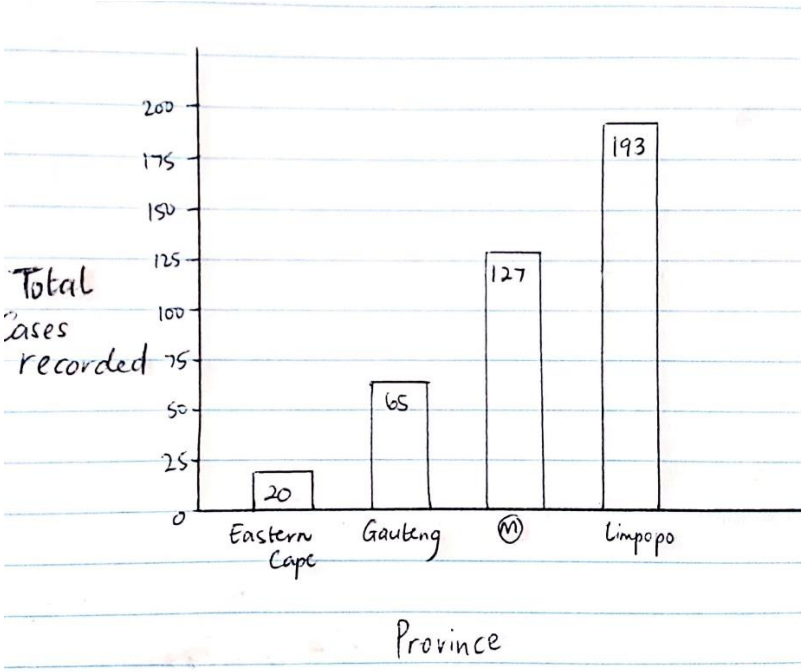
7.2. 20+1+65+105 708 +127+193+6+1 = 106 121. (2)

(1 show working)

(1 correct answer)

7.3.

Bar graph showing the total cases of Cholera recorded in Eastern Cape, Gauteng, Mpumalanga and Limpopo.



1 mark – Heading
1 mark – Label and scale of x-axis
1 mark – Label and scale y-axis
1 mark – Bars with gaps
1 mark – All bars correct. (5)

7.4. Bacterial infections are treated by using antibiotics. (2)

SECTION B (50)

QUESTION 8 (3)

8.1 D

8.2 A

8.3 B

QUESTION 9 (4)

9.1 compound (1)

9.2 pressure (1)

9.3 electrolysis (1)

9.4 diffusion (1)

QUESTION 10 (6)

10.1.1 Na (1)

10.1.2 N (1)

10.2.1 calcium (1)

10.2.2 potassium (1)

10.3.1 P (1)

10.3.2 neon (1)

QUESTION 11 (6)

11.1 protons (1)

11.2 negative (1)

11.3.1 carbon (1)

11.3.2 12 (1)

11.3.3 12 (1)

11.3.4 6 (1)

QUESTION 12 (4)

12.1 A

There are two atoms in the molecule (2)

12.2 2 (1)

12.3 B (1)

QUESTION 13 (7)

13.1

A = water (1)

B = salt water (1)

C = Fe and S atoms (1)

D = oxygen molecules (1)

E = Cu atoms (1)

13.2.1 iron sulphide (1)

13.2.2 chlorine (1)

QUESTION 14 (6)

14.1.1 condensation (1)

14.1.2 evaporation (1)

14.2 absorbed from (1)

14.3 F (1)

14.4 the spaces are very large and the forces are very weak (2)

QUESTION 15 (10)

15.1 V = 2cm x 8cm x4cm

V = 64 cm^3 (2)

15.2 55 cm^3 – 40 cm^3

15 cm^3 (2)

15.3 434,5 g (1)

15.4.1 m = D x V
m = 0,5 x 100
m = 50g (3)

15.4.2 float : it has a lower density than water which is 1g/cm^3 (2)

QUESTION 16 (4)

16.1.1 70g (1)

16.1.2 11 cm^3 (1)

16.2 copper : the gradient of the graph is steeper (2)

SUB TOTAL (50)

TOTAL (100)