



eduresourcza.com



KWAZULU-NATAL PROVINCE

EDUCATION
REPUBLIC OF SOUTH AFRICA

KING CETSHWAYO DISTRICT

**GENERAL EDUCATION AND
TRAINING**

GRADE 8

**NATURAL SCIENCES
PLC CONTROLLED TEST MEMORANDUM
2024 TERM 1**

Marks: 60
Time: 1½ Hours

This memorandum consists of 4 pages (excluding cover page).

QUESTION 1

- 1.1. C. ✓(1)
 1.2. D. ✓(1)
 1.3. A. ✓(1)
 1.4. A. ✓(1)
 1.5. D. ✓(1)

[1 x 5 =5]

QUESTION 2

- 2.1. Adaptation✓(1)
 2.2. Biotic factors✓(1)
 2.3. Stomata✓(1)
 2.4. Habitat✓/Ecosystem (1)
 2.5. Harmful Micro-organisms✓/Pathogen (1)

[1 x 5 =5]

QUESTION 3

- 3.1. B. ✓(1)
 3.2. F. ✓(1)
 3.3. D. ✓(1)
 3.4. A. ✓(1)
 3.5. C. ✓(1)

[1 x5 =5]

QUESTION 4

- 4.1. The experiment to determine if a green leaf will produce starch during photosynthesis. ✓ (1)
 4.2. A green leaf (leaf containing chlorophyll) that was exposed to sunlight✓ will contain starch✓ or A green leaf (leaf containing chlorophyll) that was exposed to sunlight will test positive for starch. (2)
 4.3. Chlorophyll in the leaf,✓ (accept green leaf). (1)
 4.4. Starch is present in the leaf.✓ (1)
 4.5. The iodine changes from brownish – orange to dark – blue black✓ which indicates that the leaf or other part of the plant contains starch. ✓ (2)
 4.6. Ethanol✓ is highly flammable✓, wear safety goggles, gloves, lab coat, etc. (accept any relevant safety precaution) (2)

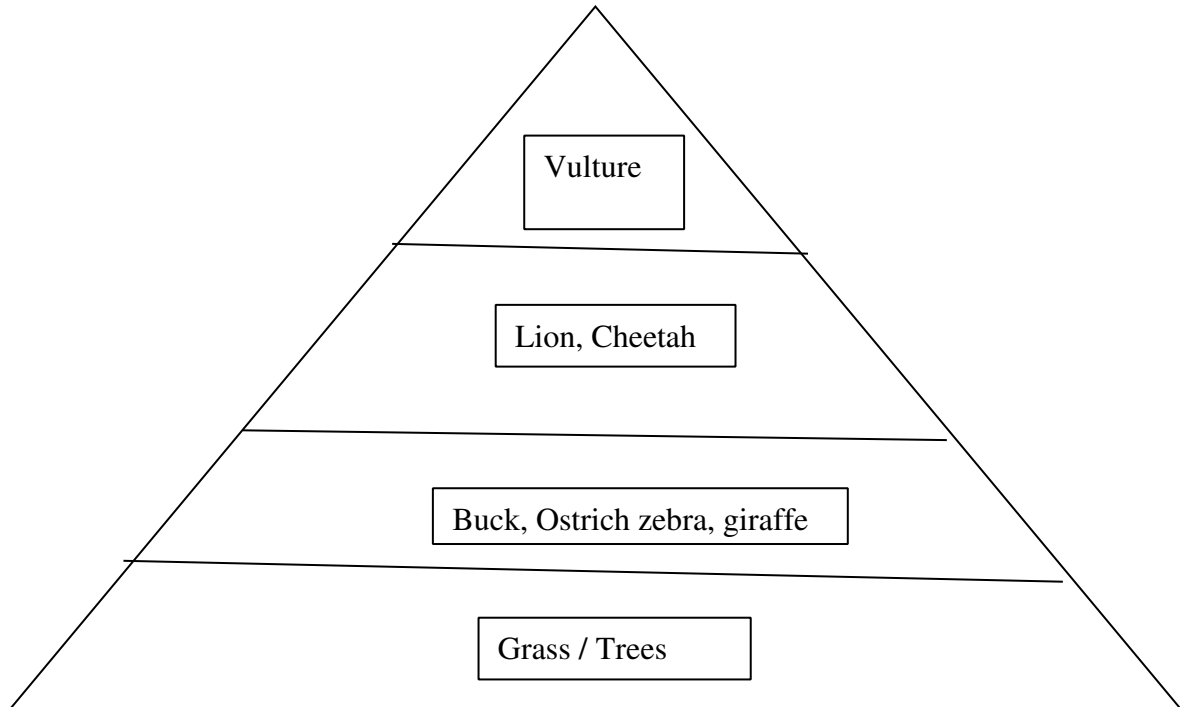
[9]

QUESTION 5

- 5.1. Ecosystem.✓ (1)
 5.2.

Biotic	Abiotic
Buck /✓	Sunlight /✓
Lion/Cheetah/Zebra/Giraffe/Ostrich/Vulture/Trees/Grass	Air / Soil
1 mark for table ✓ (any biotic✓ and any abiotic✓)	

- 5.3. The producers will increase ✓ and the secondary consumers will die from hunger. ✓ (3)
- 5.4. Fungi serve as decomposers in an ecosystem ✓ use in medicine ✓ and the making of beer, ✓ wine, bread, and cheese. (accept any correct) (2)
- 5.5 (3)



- 1 mark for all trophic levels drawn ✓
- 4 marks for correct animals at each trophic level ✓✓✓✓ (accept any relevant answer per trophic level) (5)
- 5.6. Lion ✓/Cheetah.
- Good eyesight to spot the prey/ ✓
- Fur use for camouflage – blend in with the environment ✓/
- Run very fast to catch the prey/ ✓
- Sharp teeth and claws to hold and kill the prey. (accept any three relevant ways) (4)
- [18]**

QUESTION 6

- 6.1. 150 000 J. ✓ (1)
- 6.2. $150\,000\text{J} - 100\,000\text{J} = \underline{50\,000\text{J}}$. ✓ (1)
- 6.3. $50\,000 - \underline{10\,000} = 40\,000\text{J}$ ✓ (2)
- 6.4.
- Metabolic activities ✓
 - Respiration ✓
 - Movement, Growth, Excretion. (accept any two ways) (2)
- 6.5 Energy lost as heat ✓ and waste material. ✓ (2)

[8]

QUESTION 7

- 7.1. Human Immunodeficiency Virus / HIV virus ✓ (1)
- 7.2. By having unprotected sex, ✓ / from an HIV – infected mother to her unborn child or by breast milk from an infected mother to her baby. ✓ / By direct contact with infected blood e.g. when drug users share injection needles, / when you share a razor. ✓
(accept any relevant answer) (2)
- 7.3.
- 7.3.1. Uganda. ✓ (1)
- 7.3.2. Swaziland. ✓ (1)
- 7.4. Use condoms correctly every time you have sex ✓ / do not share needles and razors ✓ / abstain from having sex / take medication that can protect you from HIV like Pre – exposure prophylaxis (PreP). (accept any relevant answer) (2)
- 7.5.
- 7.5.1 It originated from Corona virus. ✓ or Covid -19. (1)
- 7.5.2 The Omicron is known to spread faster but research shows that only a small percentage of those infected need to be hospitalized ✓ or die as the variant causes mild diseases. ✓ (accept any relevant answer) (2)

[10]**WEIGHTING GRID FOR GRADE 8 PLC CONTROLLED TEST**

QUESTION NO.	LOW ORDER	MIDDLE ORDER	HIGH ORDER	TOTAL
QUESTION 1				
1.1		1		1
1.2		1		1
1.3	1			1
1.4		1		1
1.5		1		1
QUESTION 2				
2.1	1			1
2.2	1			1
2.3	1			1
2.4	1			1
2.5	1			1
QUESTION 3				
3.1	1			1
3.2	1			1
3.3			1	1
3.4	1			1

3.5	1			1
QUESTION 4				
4.1	1			1
4.2		2		2
4.3	1			1
4.4	1			1
4.5			2	2
4.6		2		2
QUESTION 5				
5.1	1			1
5.2	3			3
5.3		2		2
5.4	3			3
5.5		5		5
5.6			4	4
QUESTION 6				
6.1	1			1
6.2		1		1
6.3		2		2
6.4		2		2
6.5		2		2
QUESTION 7				
7.1	1			1
7.2		2		2
7.3.1	1			1
7.3.2	1			1
7.4		2		2
7.5.1		1		1
7.5.2			2	2
TOTAL	24	27	9	60
% IN EXAMS	40%	45%	15%	