PRESIDENT'S OFFICE

REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT

KAGERA REGION

FORM FOUR MOCK EXAMINATION, 2023

BIOLOGY 1

033/1

MARKING SCHEME.

1

(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
B	B	C	D	A	A	B	A	C	D

2.

LIST A	(i)	(ii)	(iii)	(iv)	(v)	(vi)
LIST B	F	C	E	D	G	B

SECTION B (54 Marks)

1. (a) Agglutination**1 mark**

(b) i). Checking blood group of donor
ii) Checking blood group of recipient
iii) Checking rhesus factor for both donor and recipient
iv) Checking amount of blood possessed by donor
v) Checking blood infections of donor

any four 4 marks @ 1 mark

(b) (i) Red blood cells – Transport carbon dioxide and oxygen
(ii) White blood cells – body defence/protect the body/Fight against diseases and infections.
(iii) Platelets – For blood clotting
(iv) Blood plasma – Transport Nutrients/Hormones/Waste

component @ 0.5 mark, Function @0.5-mark Total4 marks

4. (a) (i) Burying of material that decompose e.g garbage
(ii) Incineration / burning of material that do not decompose e.g plastic
(iii) Recycling of material e.g plastic bags and glasses
(iv) Re using of materials e.g bottles and margarine vessels cab used as flower pot

any four 4 **marks @ 1 mark**

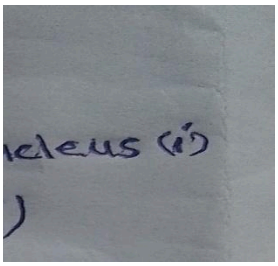
(b) (i) Eruption of diseases example chorea
(ii) Provide breeding site for dangerous organism such as snake and Mosquito
(iii) Can result into accident such as cutting accident
(iv) Destruct the beauty of the environment
(v) Block drainage channel and cause floods**any five5 marks @ 1 mark**
(vi) Bad smell due to rotten organic matter/air pollution

(e) Good manner- Are behaviours which are socially acceptable. **1 mark**

5 (a) (i) Ovulation starts
(ii) Menstruation starts
(iii) Breasts enlarge
(iv) Development of soft and high pitched voice
(v) Broadening of hips
(vi) Enlargement of vagina and vulva.
Any four changes in girls only 4 marks @ 1 marks

(b) **THE DIAGRAM OF MALE SEX CELL (Sperm)**





Caption 1 mark
Diagram 1 mark
Labeling 3 mark

6 .(a)(i)It store and transfer genetic informations (1mark)
(ii)It hold the code for protein synthesis(1mark)

(b)(i)The plants were easy to cultivate
(ii)The plants mature easily
(iii) The plants were inexpensive/cheap and available
(iv) The plants undergo both self and cross pollination
(v)The plant have many characteristics to study such as height of stem, position of flower,colour of the flower etc.
Any four points @1 mark=04marks
(C)

DNA	RNA
i. It is double stranded molecule	i. It is single stranded molecule

ii.Has thymine base	ii.Has uracil base
iii. Has deoxyribose sugar	iii. Has ribose sugar
iv. Found in nucleus	iv. Found in nucleus and cytoplasm
v. It is more stable	v. It is less stable
vi. Has only one form	vi. Has three form

Any 3points @1mark=03marks

7 a) i) There are four trophic level **1 mark**

1. Producer
2. Primary consumers **1@=4marks**
3. Secondary consumers
4. Decomposer

ii) Maize plant → Cow → Leopard → Mucor →

Maize plant → Antelope → Hyena → Mucor →

Shrubs → Antelope → Leopard → Mucor →

Shrubs Deer → Hyena → Mucor any two **@ 1=2 mark**

b) It helps in decomposition of dead organisms**(1marks)**

c) Bacteria and earthworm **any one1 mark**

8. (a) i) (U.T. I)– Urinarytract infections/Cystitis**1 mark**
(ii) Escherichian coli bacteria (E-coli) **1 mark**
(iii) – Drinking enough or plenty water
- Maintain toilet hygiene (clean toilet)
- Clean anus and area around after defecation by wiping from the front to the back
- Immediate medical treatment (using ant biotic)
- Urinating frequently after sex may help to flush bacteria **Any four@ 1mark =4marks**

b) (i) Due to presence of long loop of Henle and fewer glomeruli that increase reabsorption of large amount of water **(1.5marks)**

(ii) Due to presence of short loop of Henle and more glomeruli **(1.5marks)**

SECTION C

9.Introduction

Drug is any substance natural or synthetic that has a physiological effect in living body when taken**1 marks**

Drug abuse is excessive use of drugs for non-medical reasons**1 marks**

Causes

Influence from peer pressure
Ignorance/lack of education
For funny or leisure
Curiosity – desire to test **any four @1mark = 4 marks**
Poor parental care

Prevention of Drug abuse

Avoid peer pressure
Provide education to the youth
Social support/Guidance and counselling **any four @1mark = 4 marks**
Improve parental care
Strictly laws guiding use of drugs
Abide to religious guidance/teaching

Effects of Drug abuse

(i) Mental problems
(ii) Transmission of diseases
(iii) Early marriage pregnancies **any four @1mark = 4 marks**
(iv) Drop and from schools
(v) Increase of social crimes
(vi) Separation of families
(vii) Molar decay

Conclusion**1 marks**

10.**Meaning**

Transpiration is the process by which plants loose water in form of water vapour. It occurs during the day through stomata in the leaves, in the lenticels and in the cuticle.**2 marks**

Main body;

Three Environmental factors affecting the rate of transpiration in plants
-Temperature
-Relative humidity
-Wind and air movement
-Availability of soil moisture
-Light **(Any three points @1.5 marks)**
-Atmospheric pressure

Three advantages of transpiration in plants
-It help to maintain transpiration pull which is important for maintaining a constant stream of water and minerals between the roots and the leaves.
-It enable the plants to loss excess water
(Any three points @1.5marks)
-It helps to cool the plants

Three disadvantages of transpiration
-Excessive loss of water in plants can result into wilting

-Transpiration can result in spread of diseases/pathogens from one part of plant to another

(**Any two disadvantages @ 1.5marks)**

Conclusion; Any related conclusion **(01marks)**

(*total 15marks)*

11.**Introduction**

Meaning of movement;Is the changing of position that involve part or parts of the body.

Main body; **(02marka)**

Adaptation of muscles to movement

-Muscles have many mitochondria for energy production in form of ATP, that used in contraction and relaxation of muscles

-Muscles are multinucleated for better coordination to its contractile activities

-Muscles are elastic to allow contraction and relaxation

-Muscles are highly branched to provide large surface area for contraction and relaxation

-Muscles are highly supplied with blood capillaries to supply nutrients and oxygen

-Cardiac muscles are myogenic that contract and relax for long time without becoming fatigue. **(Any three points @02 marks)**

Significances of Tropism

-Tropism help plant leaves/shoots to move towards light for photosynthesis to take place(phototropism)

-Tropism help plant roots to move towards water and mineral salts for photosynthesis(hydrotropism)

-Tropism help plant stem and root to move toward gravity and provide upright(geotropism)

-Tropism help plant to move towards or away from chemicals(chemotropism)

(Any three points @02marks)

Conclusion; Any related conclusion **(01mark)**

(Total 15marks)