

**KOROGWE DISTRICT COUNCIL
KWEMDIMU SECONDARY SCHOOL
FORM FOUR MONTHLY TEST
BIOLOGY 1**

033/1

Time: 2:30

Year: 2023

SECTION A (16 marks)

1. For each of the item (i) – (x), choose the correct answer from among the given alternatives and write its letter beside the item number in your answer sheet.
- (i) Which of the following apparatuses are used for magnifying specimens?
- | | |
|-------------------------------|----------------------------------|
| A. Hand lens and Petri dish | D. Measuring cylinder and beaker |
| B. Hand lens and watch glass | E. Microscope and hand lens |
| C. Microscope and watch glass | |
- (ii) Which safety precaution should be taken when administering First Aid to a wounded person?
- | | |
|--------------------------------------|--------------------------------|
| A. Washing hands with soap | D. Wearing protective clothes |
| B. Calling the ambulance for pick-up | E. Washing the wound with soap |
| C. Drying the wound with clean cloth | |
- (iii) The following are the characteristics of prokaryotic **except**.
- | | |
|------------------------------------|-------------------------|
| A. They have nuclear materials | D. They have cell wall |
| B. They are single celled organism | E. They are microscopic |
| C. They have nuclear membrane | |
- (iv) Which of the following are the end products of digestion when lipids are digested completely?
- | | |
|----------------------------|--------------------|
| A. Glucose and fructose | D. Fats and oils |
| B. Fatty acid and glycerol | E. Lipase and bile |
| C. Amino acid and glycerol | |
- (v) What happens when a person moves from a bright lighted to a dim lighted room?
- | | |
|-------------------------------------|------------------------|
| A. Pupil become large | D. Pupil become small |
| B. Circular muscle contract | E. Radial muscle relax |
| C. Radial and circular muscle relax | |
- (vi) Which of the following set of conditions is necessary for seed germination?
- | | |
|----------------------------------|--------------------------------|
| A. Water, temperature and oxygen | D. Water and carbon dioxide |
| B. Temperature, soil and water | E. Water, temperature and food |
| C. Soil, oxygen and water | |
- (vii) The following balanced habitats contain grasses, wildebeests, lions and bacteria. What would happen if lions were removed?
- | |
|---|
| A. The number of bacteria would remain the same |
| B. The number of wildebeests would increase |
| C. The number of wildebeests would decrease |
| D. The amount of grasses would decrease |
| E. The amount of grasses would increase |

(viii) What will happen if phloem tissues are destroyed in green plants?

- A. Absorption of water in the plant body will stop
- B. Absorption of mineral salts will stop
- C. Transport of manufactured food will stop
- D. Transport of water and manufactured food will stop
- E. Transport of oxygen in the plant body will stop

(ix) Which respiratory surface is used for gaseous exchange in tadpoles?

- A. Spiracles
- B. Skin
- C. Lungs
- D. Gills
- E. Book lung

(x) The structure of virus is composed of either DNA or RNA and the protein coat. Therefore,

- A. It is a real living thing
- B. It is a non living thing
- C. It is a cell
- D. It is a tissue
- E. It is not a cell.

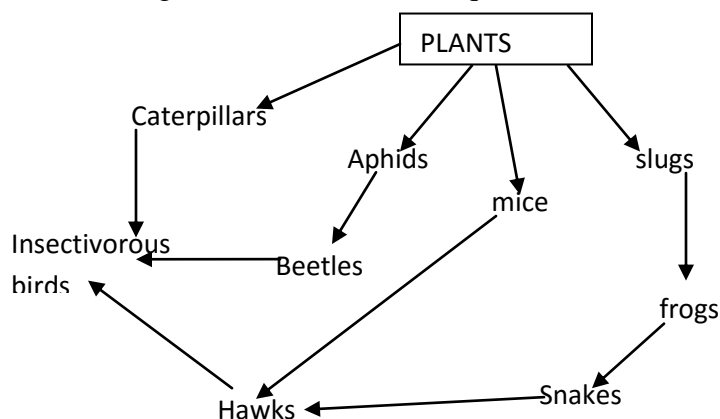
2. Match the descriptions on the concept of classification in **List A** with the corresponding terminologies in **List B** by writing the letter of the correct response beside the item number in your answer sheet.

List A	List B
(i) Cocci, bacilli, spirilla, vibrio corkscrew/spirochaetes	A. Bacteria
(ii) Amoeba, euglena, plasmodium, paramercium and trypanasoma	B. classification
(iii) Yeast cell, mucor, black bread mould, mushroom and puff ball	C. Animals
(iv) Your teachers, your parents and your relatives and yourself	D. Protoctists
(v) Mosses, liverwort, ferns, pine and live flowers.	E. Fungus
(vi) Group of organism that can interbreed freely	F. Nomenclature
	G. Animals
	H. Plantae
	I. Species

SECTION B (54 marks)

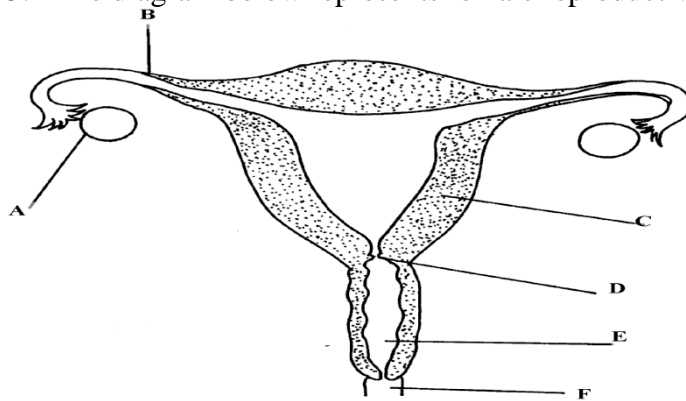
Answer **all** questions in this section

3. Study the following food web and answer questions that follow:



- (a) (i) Name the organisms that occupy the second trophic level
(ii) What is the other name for the second trophic level
- (b) Write down **two** food chains from the food web that:
- (i) End with hawks as tertiary consumer
(ii) End with hawks as quaternary consumer
- (c) Giving reasons state;
- (i) the organism with largest biomass
(ii) the organism with least biomass
4. A solution of sugar cane was boiled with hydrochloric acid and sodium hydrogen carbonate was added to the solution, which was then boiled with benedicts solution. An orange precipitate was formed.
- (a) Why was the solution boiled with hydrochloric acid and then sodium hydrogen carbonate added in it
(b) To which class of carbohydrates does sugar cane belong?
(c) State the form in which carbohydrates are:
- (i) Stored in animals
(ii) Stored in plants

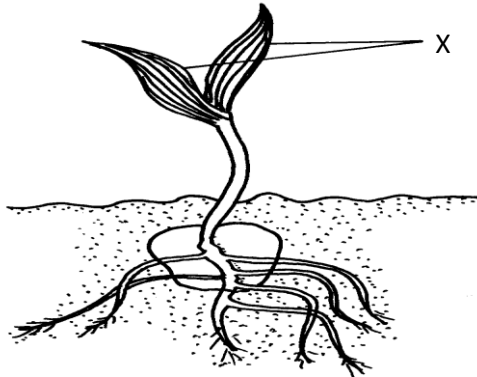
5. The diagram below represents female reproductive system;



- a) Name the part labeled; A, B, C and D
b) State **two** functions of structure **A**
c) How is part **C** adapted to its function?
d) Of what significance is part **E** to reproduction?
6. Explain the effects of the following on the quantity and composition of urine
- (a) Drinking large amount of clean water
(b) Drinking very salty soup
(c) Removal of pancreas
7. (a) A woman gave birth to a child of blood group B+ (B positive). Name the two antigens that determined her child's blood group.

(b) A transfusion of RH^+ blood was given to a patient with Rh^- blood. After one week a similar transfusion was given to the same patient. What was likely to be the effect of the second transfusion?

8. The diagram below represents a stage during the process of germination.



- (a) (i) Name the type of germination illustrated in the diagram
(ii) Give a reason for your answer in **(a) (i)** above.
(b) Give **two** functions of the part labelled **X**

SECTION C (30 marks)

Answer only **two (2)** questions in this section. Each carries 15 marks.

9. Form One student in a certain secondary school were interested to know why it is necessary to study Biology. Assume you are a Biology teacher; educate these students on the importance of studying Biology. Give any five points.
10. In a real life, most of secondary school students are in adolescence stage of growth and development; in this stage they develop secondary sexual characteristics and changes. Briefly explain the changes that occur to them.
11. Your brother who is a fisherman caught many fish. Some fish were sold, others were given to friends and neighbours, and some remained. What would you advise him in order to preserve the remained fish, bearing in mind that there is no electricity in his area?