

Name: School:

Biology
S.1
2019
1³/₄hours

WAKISO- KALANGALA SESEMAT REGION ASSESSMENT
SENIOR 1 BIOLOGY 2019

Time: 1hour 45minutes

INSTRUCTIONS:

- Answer **all** questions in section A and B.
- **Section A:** Write the letter corresponding to the right answer in the box on the right hand side of each question.
- **Section B:** Write your answers for this section in the spaces provided.
- **Section C:** Choose one question and answer it on a separate paper.

FOR EXAMINERS' USE ONLY

SECTION	MARKS
A	
B	
C	
TOTAL	

SECTION A

Answer all questions in this section

1. A cockroach fell in a non-toxic chemical which only removed its waxy cuticle. The cockroach is likely to die due to

A. Excessive loss of water from its body
 B. Excessive loss of heat from its body
 C. Loss of sensitivity to the environment
 D. Chemical poisoning

☐

2. Toads and frogs are called amphibians because they

A. Are able to live both on land and in water
 B. Cannot control their body temperature.
 C. Lay eggs in water
 D. Breathe by means of lungs and the skin

☐

3. If you were observing a specimen using a microscope without a mirror, which of the following would be affected?

A. Enlargement of the specimen
 B. Regulation of light entering the microscope
 C. Collection of light and directing it into the microscope
 D. Rotation of the turret

☐

4. What is the biological reason for land plants to have the stomata mainly located on the lower epidermis of the leaf?

A. To reduce rate of water loss
 B. To increase on rate of water loss
 C. To absorb more light
 D. To avoid loss of chlorophyll

☐

5. What would you do to prove that a given cell is from a plant?

A. Test for starch in the cell
 B. Observe under a microscope to see if the cell has a nucleus.
 C. Test for proteins in the cell
 D. Observe under a microscope to see if the cell has chloroplasts

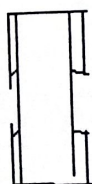
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6. Why do we normally eat modified parts of plants like roots and stems?

A. They contain stored food and water.
 B. They are medicinal.
 C. They look attractive to us.
 D. They are easily available

☐

7. Why does a plant ringed like in the illustration below die?



- A. The leaves will not receive water for photosynthesis
- B. The stem will be weaker
- C. The stem is exposed to direct light
- D. The roots will not receive food from the leaves

☐

8. Which of the following formulae is correct for calculating magnification of a specimen **when using a hand lens**?

- A. Size of image $\times$ size of the real specimen
- B. Size of the image + Size of the real object
- C. Size of the real specimen $\div$ Size of real image
- D. Size of the image $\div$ size of the real specimen

☐

9. Zoology is a biological study. The prefix Zoo means?

- A. Study of animals
- B. Animal
- C. Study
- D. Organisms

☐

10. Which one of the following fruits is a berry?

Fruit	A	B	C	D
Characteristics	Has many seeds in a dry pericarp	Has many seeds and the layers of the pericarp are fused	Has many seeds in a succulent pericarp	Has many seeds arranged along the margin

☐

11. Why are fruits dispersed by wind small in size and light in weight?

- A. Not to be seen by animals which would eat them.
- B. To be easily seen
- C. To be easily carried away
- D. To easily open to release the seeds

☐

12. Malaria is spread by mosquitoes. What is the best way of controlling malaria?

- A. Spraying the adult mosquitoes
- B. Treating the sick person
- C. Removing the breeding points for the mosquitoes.
- D. Sleeping under mosquito nets.

☐

13. To which kingdom does organism having the following characteristics belong?

- (i) It is multi cellular
- (ii) It is has a true nucleus in its cells
- (iii) It has chitin in the cell wall
- (iv) Reproduces by use of spores.

- A. Monera
- B. Protocista
- C. Fungi
- D. Plantae

☐

14. The insect has the head, abdomen, thorax and the legs located

- A. on the Head
- B. on the Thorax
- C. on the Abdomen
- D. between the Thorax and the abdomen

☐

15. Which of the following taxa has members with least differences?
 A. Class
 B. Genus
 C. Family
 D. Order ☐
16. What plant has: Tap root system and leaves with network venation?
 A. Spear grass
 B. Mango tree
 C. Monocotyledonous plant.
 D. Elephant grass ☐
17. Which one of the following is the most appropriate way of controlling HIV/AIDS?
 A. avoiding kissing
 B. Taking ARV drugs
 C. By use contraceptives.
 D. Abstaining from unprotected sex. ☐
18. The spines on the hind leg of a grasshopper are for?
 A. Camouflage
 B. Climbing stems of plants,
 C. Collecting food
 D. Defence against predators. ☐
19. Which of the following parts forms the outer wall of a fruit?
 A. Epicarp
 B. Pericarp.
 C. Mesocarp.
 D. Endocarp ☐
20. The following are reasons why we need knowledge in Biology, which one would be of least value to your everyday life?
 A. To become a doctor and treat people
 B. To get knowledge and conserve the environment
 C. To pass Biology examinations
 D. Acquire knowledge about how living organisms live together ☐
21. The scientific name of man is HOMO SAPIEN. The scientific way of writing it would be:
 A. Homo sapien
 B. Homo Sapien
 C. *homo sapien*
 D. Homo sapien ☐
22. A mosquito belongs to phylum described by having jointed limbs. The kingdom is?
 A. Anthropoda.
 B. Arthropoda.
 C. Anthropod.
 D. Arthropod ☐

23. What would happen if a body cell had a damaged cell membrane?
 A. Cell activities would not be controlled
 B. The cell will not be able to store food and water.
 C. There would be no control of what enters or leaves the cell.
 D. Nothing would enter or leave the cell
24. To a farmer of vegetables why would the larva stage of a butterfly be threatening to the crops?
 A. it's the stage of tissue break down and reorganization.
 B. it's a resting stage
 C. it's a stage of heavy feeding on vegetation
 D. There would be no butterflies to pollinate the flowers.
25. The term used to describe the various stages of development of an insect is
 A. moulting.
 B. reproduction.
 C. ecdysis
 D. metamorphosis

SECTION B

Answer all questions in this section

26. a) Define the term classification (02marks)

- b) Why is it necessary to classify living organisms? (04marks)

- c) If someone sends you three organisms whose common names he does not know but for you they are: Cockroach, house fly and a tick. You observe them and produce the table of visible external characteristics as seen below:

	Cockroach	Housefly	Tick
Number of legs	6	6	8
Number of wings	4	2	0
Number of body parts	3	3	2

Using the characteristics in the table, construct a dichotomous key that would help him identify each of the organisms on his own. (04marks)

27. a) Define the term population as applied to biological studies (01mark)

- b) Name **four** methods of determining population and for each method, give an example of an animal whose population can be estimated. (04marks)

	Method	Example
i)		
ii)		
iii)		
iv)		

- c) State **three** reasons why the population of organisms in an ecosystem must be determined. (03marks)

- d) State **two** ways of conserving an ecosystem. (02marks)

28. a) State **four** reasons why you are a living thing (04 marks)

- i) _____
- ii) _____
- iii) _____
- iv) _____

- b) State four differences between plants and animals (04marks)

	Plants	Animals
i)		
ii)		
iii)		
iv)		

- c) Define the smallest level of classification of living organisms. (02 mark)

SECTION C

Answer any one question

29. a) Explain why Fungi are vast and colonize many habitats. (10 marks)
- b) i) Structurally what are the differences between fungi and plants.
ii) How are fungi similar to plants? (05 marks)
30. a) List any **three** observable features common to all adult members of class insect (03 marks)
- b) Name **three** diseases spread by mosquitoes and for each disease name the type of mosquito responsible. (06 marks)
- c) Describe how the mosquito is adapted for spreading disease (06 marks)

END