

END OF TERM ONE EXAMINATIONS

S1 BIOLOGY

TIME: 2HOURS

Answer all questions

Circle the correct alternative in section A

Write all the answers in the spaces provided in section B

Section A

1. Which of the following branches of fungi
 - a. Entomology
 - b. Mycology
 - c. Ecology
 - d. genetics
2. The ability of an organism to respond to changes in the external environment is known as
 - a. Development
 - b. Growth
 - c. Metabolism
 - d. Irritability
3. The division of an organism into two equal places along only one plane is known as
 - a. Symmetry
 - b. Anterior view
 - c. Bilateral symmetry
 - d. Transverse section
4. One of the following organisms has radial symmetry
 - a. Posterior
 - b. Ventral
 - c. Lateral
 - d. Anterior
5. A student drew an image of a monitor lizard displaying the legs, the belly, tad and head without eyes. Which orientation did he use to draw
 - a. Posterior
 - b. Ventral
 - c. Lateral
 - d. Anterior
6. One of the following parts of the microscope controls the amount of light entering the microscope
 - a. Eye piece
 - b. Condenser
 - c. Diaphragum
 - d. Objective lens
7. The advantage of using a light microscope is that
 - a. The specimen may be alive or dead
 - b. It uses vaccum
 - c. The image is black and white
 - d. The image is detailed
8. One of the following is an example of a prolcaryotic cell
 - a. Plants
 - b. Blue green algae
 - c. Fungi
 - d. Amoeba
9. One of the following parts of the cell is found in only the plant cell
 - a. Mitochondrion
 - b. Cell wall
 - c. Cytoplasm
 - d. Cell membrane
10. Which one of the following parts of the cell controls the activities of the cell
 - a. Cytoplasm
 - b. Cell membrane
 - c. Nucleus
 - d. Vacuole
11. One of the following is an example of a specialized cell found in animals
 - a. Palisade cell
 - b. Epidermal cell
 - c. Parenchyma cell
 - d. Nerve cell

12. One of the following parts of the cell is responsible for producing energy within the cell
- a. Mitochondrion
 - b. Cytoplasm
 - c. Vacuole
 - d. None of the above
13. Which part of the cell is found in animal cells but not in plant cells
- a. Nucleus
 - b. Ribosome
 - c. Vacuole
 - d. Lysosome
14. Which one differentiates the cell membrane from the cell wall
- a. It is fully permeable
 - b. It is made of protein
 - c. It is rigid and strong
 - d. It is made up of cellulose
15. The nucleus has the following functions except
- a. Controls the activities of the cell
 - b. Contains genetic material
 - c. Stores food for the cell
 - d. Manufactures ribosomes in the nucleus
16. Which one of the following organisms does not have a true nucleus in its cells
- a. Mushroom
 - b. Bacteria
 - c. Man
 - d. Pine tree
17. One of the following is not a function of the cell wall
- a. Controls movement of materials in and out of the cell
 - b. It gives shape to the cell
 - c. Provides mechanical support to the cell
 - d. Protects the inner parts from mechanical damage
18. The advantage of using the electron microscope over the light microscope is that
- a. The image of the specimen is detailed
 - b. The specimen may be alive or dead
 - c. The image is coloured
 - d. It uses glass lenses
19. Which part of the light microscope gives the final focus of the object
- a. Objective lens
 - b. Eye piece
 - c. Condenser
 - d. Final adjustment screw
20. The mosquito larva breathes through
- a. Nostril
 - b. Segment
 - c. Head
 - d. Spiracle

SECTION B

21. (a) List any seven differences between plants and animals (7mks)

.....

.....

.....

.....

.....

.....

.....

.....

(b) What are the importance of studying biology (3mks)

.....

.....

.....

.....

22. (a) If the magnification of an object is $\times 0.5$ and the length of its drawing is 50cm. what is the length of the object (3mks)

.....

.....

.....

.....

.....

(b) The eye piece magnification is $\times 10$ and the overall magnification is $\times 250$. What is the magnification of the objective lens (3mks)

.....

.....

.....

.....

.....

(c) List any four differences between the light microscope and the electron microscope (4mks)

.....

.....

.....

.....

23. Draw and label a detailed internal structure of a plant cell