

## 2024 END-OF-SEMESTER EXAMS – BIOLOGY 1

### BIOLOGY SHS ONE OBJECTIVES

The table below is an experiment to determine the factors necessary for seed germination where  $\checkmark$  indicates factor is present and  $\times$  means factor is absent. Study the table carefully and use it to answer questions 1 to 4

Set up	I	II	III	IV
Temperature	$\checkmark$	$\checkmark$	$\times$	$\checkmark$
Moisture	$\checkmark$	$\checkmark$	$\checkmark$	$\times$
Air	$\times$	$\checkmark$	$\checkmark$	$\checkmark$

- How many test experiments were set up?  
A. 4      B. 3      C. 12      D. 1
- Which set up is the test experiment for temperature?  
A. I      B. II      C. III      D. IV
- The control experiment for water is  
A. I      B. II      C. III      D. IV
- The shape of a *vibrio* bacteria is  
A. Comma shape      B. Dot shape      C. Rod shape      D. Spherical
- Fragmentation is a reproductive method in  
A. Rhizopus      B. Spirogyra      C. Moss      D. Euglena
- To prevent air trapping in microscopy, the coverslip must be at angle of ..... before lowering  
A. 30°      B. 35°      C. 40°      D. 45°
- A prepared slide to be observed under the microscope must be on the  
A. condenser      B. stage      C. diaphragm      D. nose piece
- The clarity of an image produced by the microscope is determined by the  
A. magnification      B. resolution      C. stain used      D. light source
- A change in the environment of an organism is termed  
A. sensitivity      B. impulse      C. irritability      D. stimulus
- Extracellular digestion takes place in  
A. hookworm      B. mushroom      C. spirogyra      D. toad
- The fine adjustment of the light microscope is used to  
A. admit light into the microscope      B. focus the object under low power

- C. focus the object under high power      D. raise the stage upwards
12. If a student wanted to observe an object magnified hundred times ( $\times 100$ ) under the microscope, which of the following objective lenses would be used with the  $\times 5$  eyepiece lens?  
A.  $\times 20$                       B.  $\times 40$                       C.  $\times 50$                       D.  $\times 10$
13. In the 'systematic approach' to solving problems, data recording is done in  
A. Experimentation              B. Analysis      C. Observation/results                      D. Identification
14. A career in biology includes all the following except  
A. Laboratory technician      B. Teaching/lecturing                      C. Oncologist      D. Draftsmanship
15. Taking blood samples for study purposes is done by  
A. Dermatologist      B. Haematologist      C. Genetist      D. Histologist
16. Animals depend on plants for food because  
A. Only plant food can satisfy animals  
B. Plants are available everywhere  
C. Only Plants can make their food from simple substances  
D. Animals do not need to drink water when they eat plant food
17. The scientist who invented the microscope was  
A. Carolus Linnaeus                      B. Anton Van Leeuwenhoek  
C. Isaac Newton                      D. Charles Darwin
18. The aspect of growth in living organisms includes all the following processes except  
A. increase in dry weight                      B. reversible increase in size  
C. irreversible increase in length                      D. increase in number of cells
19. Which of the following organisms is a chemo autotroph?  
A. Virus      B. Bacteria      C. Paramecium      D. Euglena
20. The type of nutrition shown by spirogyra is  
A. symbiosis                      B. holophytic                      C. holozoic                      D. chemosynthetic

END OF PAPER 1