

END OF TERM 1 EXAMS 2019
S.1 BIOLOGY
TIME: 2Hrs 30 Minutes

NAME: _____

Instructions:

Attempt all questions in the all Sections.

Answers in section B must be written in the spaces provided.

Poor handwriting leads to loss of marks.

SECTION A. (Circle the correct objective)

1. Which of these is contained in plant cell but not in animal cells
 - A. Cell membrane
 - B. Cell wall
 - C. Cell vacuole
 - D. cytoplasm
2. Which of the following parts of a cell is responsible for energy production?
 - A. Nucleus
 - B. Mitochondrion
 - C. Cell membrane
 - D. cytoplasm
3. The main function of chloroplast is to
 - A. Absorb sunlight energy
 - B. Store water for the cell
 - C. Remove any excretory product from the cell
 - D. Allow respiration to occur within the cell.
4. Which of the following feature of the cell would best distinguish an animal cell from a plant cell?
 - A. Position of the nucleus
 - B. Amount of protoplasm
 - C. Size of the cell membrane
 - D. Size of the nucleus.
5. Which of the following is the correct hierarchy of organization of an organism?
 - A. Cell, organ. Tissue, system, organism.
 - B. Cell, tissue, organs, system, organism
 - C. Cell, tissue, organ, organism.
 - D. Cell, system, tissue, organ, organism.
6. The following cells have nuclei except
 - A. Muscle cells
 - B. Leucocytes
 - C. Erythrocytes
 - D. Palisade cells.
7. The following are organs except
 - A. Tongue
 - B. Stomach
 - C. Muscles
 - D. Brain.
8. Which of the following is formed from specialization of cells?
 - A. Cut
 - B. Lung
 - C. Muscle
 - D. Liver.
9. Which one of the following is not a component of the nucleus?

- A. Chromosome
B. Centriole
C. Genetic material
D. Nucleolus
10. The main function of the cytoplasm of a cell is
A. Storage of food and water
B. Reproduction of the cell
C. Respiration in the cell
D. Allowing exchange of material in the cell.
11. Which of the following is a function of the cell membrane?
A. Allowing exchange of materials in and out
B. Enclosing the inner part of the cell.
C. Providing shape to the cell
D. Enabling diffusion of gases in and out of the cell.
12. Blood is referred to as a tissue because
A. It is in state of liquid
B. It is made up of cells
C. It carries out several functions
D. It's components are not seen distinctly.
13. The microscope eye piece has a number x10 written on it and objective lens has a number x45 written on it, the magnification will be
A. X4.5 B. X10 C. X 45 D. X450
14. Which of the following contain the greatest number of organisms?
A. Phylum
B. Order
C. Class
D. Family.
15. Man belongs to phylum
A. mammalian
B. chordate
C. amphibia
D. animalia.
16. The brain, spinal cord and nerves form
A. System
B. Tissue
C. Organ
D. Organism.
17. The part of the microscope used to make the image clear is the
A. Objective lens B. Eye piece C. Coarse adjustment D. Fine adjustment
18. Which one of the following organ systems correspond to the specific function.

<u>System</u>	<u>Function</u>
A. Digestive system	breaking down food
B. Circulatory system	providing support
C. Skeletal system	coordinating the body activities
D. Excretory system	removing waste products

19. Respiration is the release of energy from the breakdown of food where does it occur in the cells of animals and in plants?

A. Cell membrane B. cell wall C. Nucleus D. mitochondrion

20. The part of the microscope which concentrates the light reflected by the mirror on the stage through the object is the

- A. Condenser B. Fine adjustment C. Eye piece D. diaphragm

21. The instrument below is used in the laboratory for magnifying. The name of the instrument is called?



- A. Magnifier
B. Hand lense
C. Microscope
D. Forceps

22. Which one of the following pair characteristics in living things is shown by a baby who touched a hot spoon and immediately withdraw its hand?

- A. Growth, movement
B. Sensitivity and locomotion
C. Sensitivity and movement
D. Respiration and excretion

23. Which one of the following reflects light from external source through the specimen

- A. Diaphragm C. Condenser
B. Mirror D. Eye Piece

24. Mosquitoes and other insects can be a big problem in the district. There should be an officer to deal with the insects. The officer should have studied a branch of Biology called?

- A. entomology C. pathology
B. insectology D. parasitology

25. Unicellular organism are organism made up of;

- A. One cell C. Two cells
B. Many cells D. More cells

26. The major differences between plant and animal cell is that plant cells posses

- A. Protoplasm C. cellulose cell wall
B. Tonoplasm D. mitochondrion

27. A microscope filled with a X5 eyepiece and a X20 objective lens will magnify an object.

- A. X100
B. X25
C. X250
D. X4

28. The magnification of a drawing can be calculated using the formula.....

- A. $\frac{\text{Linear dimension of drawing}}{\text{Linear dimension of object}}$
B. $\frac{\text{Linear dimension of object}}{\text{Linear dimension of drawing}}$
C. Linear dimension of drawing + linear dimension of object

- D. Linear dimension of object $\times$ linear dimension of object
29. Which one of the following should not be done when working with a microscope?
- A. Pick up the microscope by its stand and main frame
 - B. Use stage clips for holding a slide
 - C. Start with the highest magnification and change to the lower one
 - D. Cover the specimen on the glass slide with a cover clip.
30. Which one of the following is not an organ
- A. Heart
 - B. Kidney
 - C. Stomach
 - D. Muscle

SECTION B (Attempt all questions)

21. (a) In the space below draw and name the parts of plant cell.(9 Marks)

- (b) State the main differences between a plant cell and an animal cell.(20 Marks)

Animal cell	Plant cell

(c) Mention the difference(s) between an eukaryotic cell and prokaryotic cell giving example(s) in each case.

	Eukaryotic cell	Prokaryotic cell
Difference(s)		
Example(s)		

22. a) Write the scientific names of the following organisms (5 Marks)

- i. Man _____
- ii. Cockroach _____
- iii. Maize _____
- iv. House fly _____

b) Classify the following organisms (14 Marks)

ORGANISM	MAN	COCKROACH	HOUSE FLY
Kingdom			
Phylum			
Class			
Order			
Family			
Genus			
Species			

23. Mention the importance of the following specialized cells. (10 Marks)

CELL	IMPORTANCE
Red blood cell	
White Blood Cell	
Sperm or Spermatozoon	
Ovum or Egg cell	
Root hair cell	
Guard cell	
Palisade cell	
Nerve cell	

Osteoblast	
Muscle cell	

24. Complete the table below (2 marks)

Eye piece lens	Objective lens	Magnification
X15	X7	
X60		X240
X17		X340
X25	X8	

SECTION C (Attempt all questions)

25. Define the characteristic of living things. (7 Marks)
26. Define any ten branches of biology. (10 Marks)
27. Mention the economic importance of bacteria. (7 Marks)

END