

NAME 1-2-3	MARKS
ADMISSION NUMBER	

DATE	QUARTER	EXAM	CLASS	SUBJECT
28 <sup>TH</sup> NOVEMBER, 2016	4	ANNUAL	F-1 —	BIOLOGY
TIME	TEACHER(S)			
2 HOURS	MR. OMAR (FB) - MADAM SAUMU (FG)			

QUESTION NUMBER	QUESTION CHOSEN: PUT A TICK (✓)	FOR EXAMINER'S USE ONLY	
		MARKS	EXAMINER'S SIGNATURE
1.			

**INSTRUCTIONS:**

1. This paper consists of sections A, B and C.
2. Answer **ALL** questions.

**SECTION A (30 Marks)**  
**Multiple choices (10 marks)**

1. Choose the most correct answer from the given alternatives and only write its letter in the box provided.

(i) We study biology in order to:

- A. Know all living things and non-living things better
- B. Be teachers and doctors
- C. Understand ourselves better
- D. Be able to understand our world better

(ii) Zoology is the science of:

- A. Animals only
- B. Animals and plants
- C. Classification of living things
- D. Animal meaning

(iii) Sense organs are good and useful in.....

- A. Making conclusions in experiments
- B. Determining the problem
- C. Making observations
- D. Testing and tasting activities

(iv) Chemicals that can burn your skin are termed as.....

- A. Harmful
- B. Toxic
- C. Oxidant
- D. Corrosive

(v) If you accidentally swallow a poison, you are advised to take a glass of milk because the milk ...

- A. Induces vomiting
- B. Relieves pain
- C. Neutralizes pain
- D. Prevents shock

(vi) Insulating electric cables help to prevent...

- A. Current to flow
- B. Electric shock

- C. Electric supply
- D. Poison

(vii) A technique following definite steps used to acquire new knowledge is known as:

- A. Scientific process
- B. Investigation
- C. Experimentation
- D. Observation

(viii) Waste disposal means:

- A. Exposing wastes in the environment
- B. Proper discarding or destroying wastes according to environmental laws or converting wastes to useful things
- C. Collection, transport, processing or disposal of wastes
- D. Cutting down the amount of waste you throw away

(ix) ..... is the basic unit of classification of organisms.

- A. A cell
- B. Hierarchical order
- C. Species
- D. Taxonomy

(x) ..... is an organism that grows and gets its nutrients from dead organic matter causing it to decay.

- A. A parasite
- B. A saprophyte
- C. A bacterium
- D. A fungus

2. The following statements are either true or false. Write **TRUE** if the statement is true and write **FALSE** if the statement is false on the space provided. **(10 marks)**

- i. Asymptomatic disease always shows symptoms. \_\_\_\_\_
- ii. Unwanted materials are wasteful materials. \_\_\_\_\_
- iii. We are always safety if we are at the state of being protected from danger. \_\_\_\_\_
- iv. Pellicle is a protein coat that surrounds a virus particle. \_\_\_\_\_
- v. Fact or information collected during scientific investigations is termed as conclusion. \_\_\_\_\_
- vi. Lymphocytes are small white blood cells having a round nucleus. \_\_\_\_\_
- vii. Artificial classification of organisms is based more on the homologous features than analogous features.  
\_\_\_\_\_
- viii. Living cells must contain DNA and RNA. \_\_\_\_\_

- ix. First aid is only provided by qualified people. \_\_\_\_\_
- x. A compound microscope is more powerful than an electron microscope. \_\_\_\_\_

3. Match the terms in list **A** with the correct item in list **B** by writing its letter below the numbers of the corresponding item in list **A** in the table provided. **(10 marks)**

LIST A		LIST B	
i.	Serves as a power house of a living cell.	A.	Vacuoles
ii.	Possesses two nuclei.	B.	Cell wall
iii.	Nose, trachea and lungs.	C.	Enlargement
iv.	Found in both plants and fungi.	D.	Magnification
v.	Used for absorbing blood for cuts with minor bleeding.	E.	Gauze bandages
vi.	Outer covering in euglena.	F.	Cotton balls
vii.	Projections in protozoa for movement and feeding.	G.	Flagella
viii.	Malaria, T.B, and typhoid.	H.	Pseudopodia
ix.	A product of eye-piece power multiplied by objective lens power.	I.	Organs
x.	Assigning two scientific names to living things.	J.	Chloroplast
		K.	Pellicle
		L.	Cuticle
		M.	Paramecium
		N.	Plasmodium
		O.	Binomial Nomenclature
		P.	Tissue
		Q.	Taxonomy
		R.	Mitochondrion
		S.	Pandemic
		T.	Endemic

#### ANSWERS

i	ii	iii	iv	v	vi	vii	viii	ix	x

#### SECTION B (50 Marks)

4. (a) Define the term classification of living things.

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- (b) Give at least two differences between the two systems of classification of living organisms.

**System\_**

**System**

i. \_\_\_\_\_

i. \_\_\_\_\_

ii. \_\_\_\_\_

ii. \_\_\_\_\_

5. (a) Explain the meaning of the term composting.

\_\_\_\_\_  
\_\_\_\_\_

- (b) State advantages and disadvantages of composting.

**Advantages:**

**Disadvantages**

(i) \_\_\_\_\_

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

(ii) \_\_\_\_\_

6. (a) Why is First aid important? Give two reasons.

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

- (b) Explain proper procedures for providing first aid to a victim of minor burns.

\_\_\_\_\_  
\_\_\_\_\_

7. (a) Name the parasite that causes malaria. \_\_\_\_\_

- (b) State the kingdom and phylum to which the parasite you mentioned in (a1) above belongs:

Kingdom: \_\_\_\_\_

Phylum: \_\_\_\_\_

8. Name the parts of the cell described in each of the statements below:

a) A jelly-like substance in which other organelles are suspended (\_\_\_\_\_)

b) A thin membrane that allows only something to pass in or out of the cell. (\_\_\_\_\_)

c) Fluid filled sacs for storing food and excreting waste. (\_\_\_\_\_)

d) An oval –shaped organelle that contains hereditary information. (\_\_\_\_\_)

9. (a) Define the term Binomial Nomenclature.

\_\_\_\_\_  
\_\_\_\_\_

- (b) Many living things have their local names, yet we give them scientific names. Explain why?

Give four reasons

(i) \_\_\_\_\_

(ii) \_\_\_\_\_

- (iii) \_\_\_\_\_
- (iv) \_\_\_\_\_

10. (a) Draw a well labeled diagram of an animal cell as seen under the electron microscope.

b. Name the parts which are common to both the animal and the plant cell.

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

c. How is the animal cell different to the plant cell?

**Animal cell:**

**Plant cell:**

i \_\_\_\_\_

ii \_\_\_\_\_

iii \_\_\_\_\_

iv \_\_\_\_\_

i \_\_\_\_\_

ii \_\_\_\_\_

iii \_\_\_\_\_

iv \_\_\_\_\_

**SECTION C (20 Marks)**

Choose **ONLY ONE** question in this section.

11. Outline the causes, mode of transmission, signs and symptoms, effects and preventive measures of Malaria.
12. Outline economic importance of Monerans.