

## BIOLOGY 1 2019 - NECTA FORM FOUR

Solutions from: [Maktaba by TETEA](https://maktaba.tetea.org)

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1.

i	ii	iii	iv	v	vi	vii	viii	ix	x
C	D	C	B	A	B	E	B	B	A

2.

i	ii	iii	iv	v
F	G	D	B	H

3.(a)watch glass

(b)morta and pestle.

(c)dropper.

(d)spatula.

4.Effects of improper waste disposal.

-soil pollution on that area.

-can lead to eruption of cholera.

-make that area to be dirty.

### Differences between endocrine & nervous systems

NERVOUS SYSTEM	ENDOCRINE SYSTEM
Electrical – chemical message	Chemical message
Carried by nerves	Carried by blood
Impulses target specific sites	Messages can be sent to many regions in the body
Response is fast acting	Response is slow acting
Effects are short term	Effects are long term

5.

6.(a) heartburn.

(b) measures to control heartburn.

wearing loose clothing

standing up straight

elevating your upper body

mixing baking soda with water

trying ginger

taking licorice supplements

sipping apple cider vinegar

chewing gum to help dilute acid

staying away from cigarette smoke

trying over-the-counter medications.

7.(a)A stigma

B anther

C style

D petal

E sepal

F pedicel.

Part	Function
Stigma	Produces pollen grains
Petals	Attracts insects
Anther	Receives pollen grains.

(b)

8. the impact of ringing on the stem of a hibiscus plant.

- prevents the movement of manufactured food from leaves to roots.
- leads to swelling of upper part of ringed plant due to accumulation of food.
- death of plants beginning from lower and because of lack of food.

9. are moist to dissolve gases

- they are highly vasculated with blood capillaries.
- has large surface area for food absorption.
- they are thin for easy diffusion.

10.(a)

Cell Wall	Cell Membrane
Cell Wall is the non-living, outermost boundary of plant cells, bacterial cells and fungal cells.	Cell membrane is a membrane which surrounds nucleus and cytoplasm in all types of cells, but in plant cells it is surrounded by cell wall.
Cell wall is mainly composed of cellulose and pectin.	Cell membrane is composed of phospholipids, cholesterol and protein molecules.
Cell wall is composed of three main layers, middle lamella, primary wall and secondary wall.	Cell membrane consists of lipid bilayer in which protein molecules float like icebergs in the sea.
It provides protection and mechanical support to the cell and gives definite shape and rigidity to plant.	Cell membrane is selectively permeable membrane. In animal cells, materials are taken into the cell in the form of vacuoles. This process is called endocytosis.

(b)Cell differentiation enables organisms to carry out many functions at the same time.

#### 11.Causes of kidney stone

- lack of enough water
- taking food with a lot of salt.
- impermeability of pelvis

#### Treatment of kidney stone

- take enough water
- surgery to remove them.
- drugs to dissolve stones.

#### 12.-they can hibernate on cold condition.

- they aestivate during hot weather.
- they bask on rocks to warm their bodies.

#### 13.HIV/AIDS

Causes-It is caused by viruses called Human Immunodeficiency Virus.

#### SYMPTOMS OF HIV/AIDS

-Rapid weight loss

Recurring fever or profuse night sweats

Extreme and unexplained tiredness

Prolonged swelling of the lymph glands in the armpits, groin, or neck

Diarrhea that lasts for more than a week

Sores of the mouth, anus, or genitals

Pneumonia

Red, brown, pink, or purplish blotches on or under the skin or inside the mouth, nose, or eyelids

Memory loss, depression, and other neurologic disorders.

## TRANSMISSION.

- by unprotected sexual intercourse.
- From mother to baby during birth and breastfeeding.
- sharing piercing and cutting items.
- through unscreened blood transfusion.

## 14.BENEFITS OF FUNGI

- are used as source of food.eg mushroom
- helps in decomposition of organic matters.
- some are sources of medicine.eg penicillin.
- some are used in beer brewing
- yeast is also used in bread making.

## 15.-genetics is used to solve parental conflicts.

- knowledge of genetics is used for counseling couples before marriage.
- knowledge of genetics has been used to produce animals and plants species with superior characteristics.
- genetics is used in carrying out forensic investigations like identifying animals.