

BIOLOGY FORM TWO NECTA 2012

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

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1.

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

2.

i	ii	iii	iv	v	vi	vii	viii	ix	x
False	True	False	False	True	True	False	True	False	False

3.

i	ii	iii	iv	v	vi	vii	viii	ix	x
G	F	H	N	C	M	B	E	A	O

4(a)&b)Components of blood are

- red blood cell,used to transfer oxygen
- white blood cell,used to fight against pathogens
- platelets, responsible for blood clotting
- plasma,used to dissolve materials.

5.(a) malnutrition is the disorder that occurs to a person lacking balanced diety.

(b)(i) kwashiorkor.

(ii)give balanced diety with much protein.

6(a)food web.

(b) food chain

(c) primary consumer include goat, zebra and rabbit. Decomposer are bacteria.

(d) grasses and shrub are producers.

7(a) Respiration is the process of breaking food to give out energy, WHILE gaseous exchange is the exchange of air between the body and environment.

(b) features of Respiratory surface

- are moistured

- have cillia

- have thin wall

- are rich in blood supply

(c)(i) During exercise there is an increase in physical activity and muscle cells respire more than they do when the body is at rest.

The heart rate increases during exercise. The rate and depth of breathing increases - this makes sure that more oxygen is absorbed into the blood, and more carbon dioxide is removed from it.

(ii) During vigorous exercise, muscles are not supplied with enough oxygen. This means that cells have to respire anaerobically. Anaerobic respiration involves no oxygen. This leads to a build-up of lactic acid in the muscles and creates an oxygen debt. Lactic acid causes muscle fatigue and prevents muscles from contracting efficiently. In order to remove the lactic acid, it needs to be oxidised. The increased breathing rate allows more oxygen to enter the body and help to remove the lactic acid.

8(a) waste are unwanted materials.

(b) principles of waste disposal are:-

- Re-use

- Reduce

- Recycling.

(c) It is because roots lose water to the soil due to high concentration of salt to the soil.

9.BACTERIA.

Characteristics of Bacteria

- Size of bacteria range between 0.5 to 5 micrometer
- They are prokaryotic microbes (have no membrane bounded Nucleus and mitochondria)
- Have a single chromosome as Genetic material
- Enclosed in a rigid cell wall made up of peptidoglycane
- Some bacteria, along with plasma membrane, contain an additional membrane called Capsule

1. Bacteria are involved in production of many food products such as yogurt, cheese, pickles, etc.
2. Bacteria break down waste material so that our environment is not permanently cluttered with garbage, dead bodies, etc.
3. Bacteria are responsible for the production of important essential compounds that are necessary for life such as vitamin K production by E. coli in the gut

DISADVANTAGES:

1. Some bacteria cause infections or produce toxic substances that are a threat to life and/or health.
2. Bacteria cause spoiling of food so that it does not keep as long as we may desire.

10.AIDS

-Acquired immunodeficiency syndrome (AIDS) is a chronic, potentially life-threatening condition caused by the human immunodeficiency virus (HIV). By damaging your immune system, HIV interferes with your body's ability to fight infection and disease.

-Possible signs and symptoms include:

Fever

Headache

Muscle aches and joint pain

Rash

Sore throat and painful mouth sores

Swollen lymph glands, mainly on the neck

Diarrhea

Weight loss

Cough

Night sweats

TRANSMISION

-Sexual contact - HIV is spread most commonly by sexual contact with an infected partner. The virus enters the body through the lining of the vagina, vulva, penis, rectum, or mouth during sexual activity.

Blood contamination - HIV may also be spread through contact with infected blood. However, due to the screening of blood for evidence of HIV infection, the risk of acquiring HIV from blood transfusions is extremely low.

Needles - HIV is frequently spread by sharing needles, syringes, or drug use equipment with someone who is infected with the virus. Transmission from patient to healthcare worker, or vice-versa through accidental sticks with contaminated needles or other medical instruments, is rare.

Mother-infant - HIV also can be spread to babies born to, or breastfed by, mothers infected with the virus.

Learn more about:

HIV/AIDS cannot be spread through:

Saliva

Sweat

Tears

Casual contact, such as sharing food utensils, towels, and bedding

Swimming pools

Telephones

Toilet seats

Biting insects (such as mosquitoes.

PREVENTION.

- Don't share needles for shooting drugs, piercings, or tattoos.

- Get tested and treated for other STDs besides HIV regularly. Having other STDs makes it easier for you to spread HIV to others.

- Always use condoms when you have vaginal and anal sex.

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