

BIOLOGY FORM TWO NECTA 2014

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	B	B	B	A	C	B	A	B	C

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

3.

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

4.(a) Biology is the study of living and non living organisms.

Biologist is the person who study biology.

(b)main branches of biology are

-botany

-zoology

(c)(i)While agriculture is the growing of plants as crops and animals for food, biology is the study of life, which broadly divides into plants and animals, according to Reference.com. The two relate closely and intertwine often. The best agricultural practices make use of lessons learned from biology.

(ii) Biology is the study of living organisms (animals and plants), while Medicine is the art and science of diagnosis and treatment of disease and injuries. It examined disease prevention and promotion at community level to determine burden of disease and health status of a given population.

5(a)

Characteristics of Fungi

- Fungi are eukaryotic heterotrophs that have cell walls.
- Their cell walls contain chitin, a complex carbohydrate.
- Except for yeasts, all fungi are multicellular
- Fungi are made up of thin filaments called hyphae
- Each hyphae is only one cell thick.

(b)(i) MUSHROOM

(ii) A-pileus(cup)

B-gills

C-stipe/stem.

(c) phylum Basidiomycota.

6.(a) Puberty is the process of physical changes through which a child's body matures into an adult body capable of sexual reproduction. It is initiated by hormonal signals from the brain to the gonads: the ovaries in a girl, the testes in a boy.

(b)-washing the hair with soap or shampoo at least once a week

-washing hands with soap after going to the toilet

-changing into clean clothes. Dirty clothes should be washed with laundry soap before wearing them again

-hanging clothes in the sun to dry. The sun's rays will kill some disease-causing germs and parasites.

7(a)(i) Transportation of material is the process of moving the materials from one region in the body to another throughout the body.

(ii) mass flow is an hypothesis to explain the movement of solutes in a plant by means of a hydrostatic pressure gradient.

(b) . When placed in a hypertonic solution, a red blood cell will lose water and undergo crenation (shrink).

(c)-Pulmonary artery takes away blood from heart to lung of respective side. Pulmonary veins drain blood from lung (one pair from each side) to heart.

-Blood in pulmonary artery is deoxygenated, blood in pulmonary vein is oxygenated.

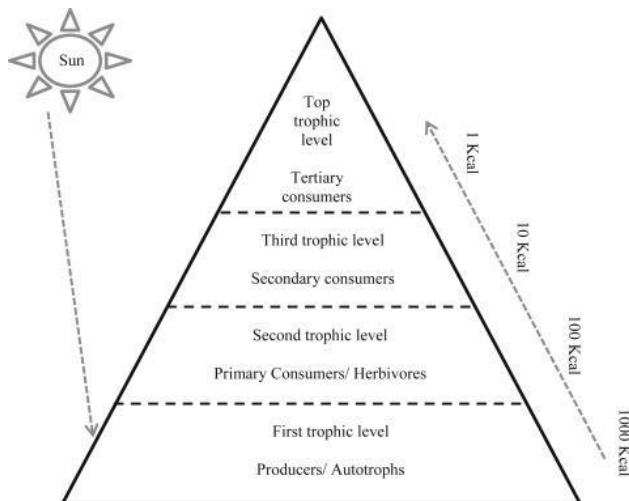
-Pulmonary artery carries blood from right ventricle of heart. Pulmonary vein carries blood towards left auricle of heart.

-Blood pressure within pulmonary artery is higher than that in pulmonary vein.

-Wall of pulmonary artery is thick and elastic, wall of pulmonary vein is comparatively thinner.

8(a)The natural environment or natural world encompasses all living and non-living things occurring naturally, meaning in this case not artificial. The term is most often applied to the Earth or some parts of Earth.

(b) Components of food chain and food web.



(c)-Biotic components of environment include

-animals and plants.

-abiotic components of environment include

-stones, hills.

9. AN ESSAY OF ASTHMA.

is a chronic disease caused by the inflammation of the respiratory tract. It is characterized by obstructions in the airflow and bronchoplasm, shortness in breathing, tightness of the chest, coughs and wheezes. Furthermore, its prevalent rate is higher among children in crowded inner-city places or among homeless children

Causes of asthma are influenced by genetic and environmental factors. These factors determine its severity and response to medication.

-When one has been diagnosed with asthma, he or she exhibits a number of symptoms. These symptoms are exemplified by wheezing, tightening of the chest, heavy breathing, and coughing.

-It results in breathing difficulties when the bronchial tubes are blocked. This is as a result of the constriction of the respiratory tract and excess mucus produced from the tract lining.

-These blockages mostly happen at night when the patient develops breathing problems and begins wheezing and coughing.

-CONCLUSION

Asthmatic patients should make sure that they have proper medical care and access to medical services. For parents, they should ensure that they provide a comfortable growing environment for their children to avoid chances of getting asthma. The use of pollutants and strong scented sprays should also be reduced.

10.

METHODS OF FOOD PRESERVATION

TRADITIONAL METHODS

- ❖ Drying
- ❖ Cooling
- ❖ Freezing
- ❖ Boiling
- ❖ Heating
- ❖ Salting
- ❖ Sugaring
- ❖ Smoking
- ❖ Pickling
- ❖ Lye
- ❖ Canning
- ❖ Jellying
- ❖ Jugging
- ❖ Burial

INDUSTRIAL MODERN METHODS

- Pasteurization
- Vacuum packing
- Artificial food additives
- Irradiation
- Pulsed electric field electroporation
- Modified atmosphere
- Nonthermal plasma
- High-pressure food preservation
- Biopreservation
- Hurdle technology