

LOWER SECONDARY CURRICURUM

BIOLOGY-HIGHLIGHTS

PAPER ONE AND TWO/THREE

BY WASSWA ENOCK- CEO NSUTA

0701300437/0762867639

WHATSPP-0742109017

553/1 BIOLOGY PAPER ONE (THEORY)

Section A

Topics for each item;

Item one

- Nutrition in plants and transport in plants
- Here learners must know plant biology very well.
- To respond clearly to the item embed in the following summary below;

Read the item, after;

State the organ, structure, process how the structure is used for the process/importance of that structure. Link it with the impact in the scenario for example A leaf is an organ that has structures called stomata for a process of gaseous exchange. Blocking of stomata by dust reduces gaseous exchange and lower food production by photosynthesis leading to poor yields as an impact.

Item two; comes from two topics i.e. coordination in animals and locomotion in animals.

Learners must take note of the following;

- 1) Understanding the events in the reflex arc very well, specify the muscle involved i.e. Biceps and Triceps in the arm, Flexor and extensor muscles in the leg.
- 2) Understanding the events during accommodation (focusing of an object by the eye) with relation to pituitary and adrenal glands, Short and long sightedness and how they are corrected.

.

3) Understanding the process of hearing with relation to the pituitary gland and adrenal gland

4) Understanding different disorders, causes and their effects i.e. diabetes mellitus, osteoporosis, muscle cramps, gigantism, dwarfness etc. and how they are managed

Item three

- This item is extracted from the following topics i.e. Reproduction in animals and plants, genetics, growth and development and variation.
- Lerner should take emphasis on the following;
- Genetic crosses including albinism, sex linked traits like hemophilia and colorblindness also sex determination crosses in humans.

- Double fertilization process in flowering plants
- Events in menstrual cycle, process of fertilization in humans.
- Growth spurt curves

Section B

Item four and five (here you choose one)

- Topics Include;
- Ecology
- Flowering plants
- Classification
- Insects
- Cells
- Introduction to biology

Key points include;

Learners should understand ecology very well

- When responding to this item, using the following techniques;
- Identify the natural resource in the scenario eg forest, a swamp
- The give the importance or impact to the environment
- And then link it to the scenario

Item six and seven

Key topics

- Transport in animals
- Nutrition in animals
- Respiration in animals
- Excretion in animals

.

What is important here understand, digestion of food,
how food is absorbed, and assimilated

Effects of intense physical exercise, how to recover from
the effects

NB Categories of questions in paper one involve;

- Understanding questions which target knowledge
- Application questions ie involve solving problems

553/2 Paper two and 553/3 Paper three (Biology practical)

- The paper has two items

Item one, here you must write a report

Features of a report;

1) Aim of the experiment

This involves problem statement and purpose of carrying out the investigation

2) Hypothesis

Don't commit yourself for example don't say Solution A contain starch, proteins and solution B contains proteins but say Solution A contain more nutrients than solution B

3) Variables

- Control variable(parameters to be controlled)
- Independent variable(cause of the difference in results)
- Dependent variable (outcome/result of the experiment)

4) Materials (list what is given)

5) Procedure (show the use of materials and measurements while writing procedure)

6) Theory (in the scenario)

.

7) Result analysis (observation and explanation, link the explanation to the scenario)

8) Recommendation or advise

Item two

- Identify the specimen provided with reasons e.g. leaves because they have lamina, stalk and apex
- Give the adaptation/suitability of the specimen (here specify the part and function)
- Construct the dichotomous key.
- Draw and label as instructed(title, magnification, outline, accuracy)