553/1 BIOLOGY (THEORY) PAPER 1 2 ½ hours



# WUNNA EDUCATIONAL SERVICES LEARNERS' ASSESSMENT BOARD (WESLAB)

Uganda certificate of Lower secondary education

# M.O.T 1 ASSESSMENT THREE S.3 BIOLOGY PAPER 1

2 Hours 30 Minutes

## **Instructions:**

- ✓ Attempt all questions in Section A and only two questions in Section B.
- ✓ Attempt only one question in Part I and only one question in Part II in Section B

# **SECTION A** (Attempt all)

#### ITEM 1

Zziwa planted maize which a few days after flowering, a tree fell and hit many plants and were broken. Upon maturing and harvesting, Zziwa found damaged maize plants with very small cobs without grains, which reduced his food production.

#### Task

a) Identify the life processes which were affected in the maize plants.
b) Explain how the damage of the above organs resulted in to drying of the leaves and will cause delay in the maturing of the plant fruits.
c) How can Zziwa improve his yields?

#### ITEM 2

Kimathi a senior two boy is having difficulties in understating of blood grouping. He knows that human blood is grouped mainly under the ABO system and that All blood is red in color. He believes any person should be able to give blood to anyone in need. As a senior three student, help him understand the following.

Task
a) why people with blood group O are called universal donors?
b) Why people of blood group AB are called universal recipients?
c) A cannot give blood to those of B?
d) AB cannot donate blood to members of other blood groups.

#### **SECTION B**

#### Part I

## Attempt one question

#### ITEM 3.

Jane is a secondary school girl, studying in a day school near her home. As a result of bad peer groups, she started drinking alcohol and dodging school. When the school authority tried to trace why Jane was dodging school, they found out that she had a boy friend in the nearby village, where she would stay, without reaching school. A few months later, Jane started feeling sickly and vomiting. When her parents carried out an HcG urine test, it turned out positive and they were very bitter with her.

She was forced into teenage marriage by her parents; however, she continued with her habits and did not attend antenatal care.

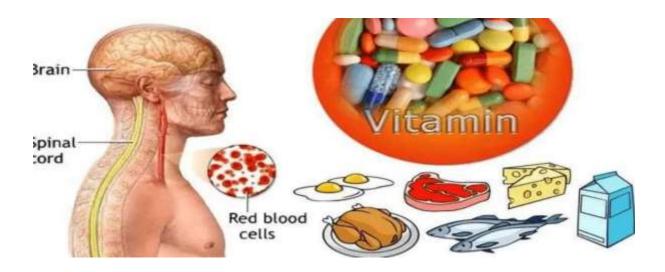
#### Task

- a) Explain the events that resulted into the changes in Jane's body from the time she met her boyfriend up to when she started feeling sickly and vomiting
- b) What are the likely consequences of Jane's lifestyle?
- c) Advise Jane on how she can improve her living conditions.

#### ITEM 4.

The people in your community have a challenge of deficiency diseases. You have been selected by your class teacher to represent your class on a sensitization campaign to help those people overcome the diseases.

#### ©WESLAB 2025



#### **Task**

Prepare a message you will use to sensitize the people in your community on how to overcome the deficiency diseases.

#### PART II

Attempt any one question.

#### ITEM 5.

Masindi district in central Uganda is well known for many residents engaging in charcoal burning. The farmers in this district claim that food production is very poor in the areas which are mostly experiencing the economic activity. That this has resulted in to various challenges within the population of the district.

#### **Task**

- a) Explain how the economic activity has resulted in to challenges that the population faces.
- b) Indicate the ways how to reduce on effects of the activity and the significance of conservation of natural resources in Masindi district.

#### ©WESLAB 2025

#### ITEM 6.

Mugisha bought a bushy piece of land for crop growth. He cleared the land and planted maize and beans which had wide market since he was selling them to nearby schools and did not want to change to other crops. In every season, he applied artificial fertilizers and irrigated the garden in dry seasons to keep supplying the schools throughout the year. After 5 years, Mugisha's yields started to decline even after thorough irrigation and fertilizer application. He is not aware of the cause and is scared about the decrease in his income and family survival.

#### Task

- a) Explain how Mugisha's farming practices resulted in to reduced crop production.
- b) Advise Mugisha on how he can overcome the likely dangers of the reduced crop production.
- c) State why soil should be conserved.

**END**