S.2 TERM 2 HOLIDAY WORK

BIOLOGY

Attempt all

Item 1

Kyanja, a village in Buikwe is composed of the following groups of people; pregnant women, crawling babies, footballers, office workers and old people. The health care provider of the are want to design the right diet for each group of people but they don't know what to include. You have been consulted on what to do.

Task

(a)Identify the nutrients and their uses that should constitute a greater percentage in the diets of the above groups of people in Kyanja village.

Item 2

Your school health club is conducting a study in which they checked on the health status of students. During the study, the measured and recorded the weight, age and height of the students. When asked by students why they were doing so, they replied "we want to know your BMI status." They also had with them a chart as seen below;

BMI (kg/m^2)	**Interpretation**
< 18.5	Under weight
18.5 – 24.9	Normal
25 – 29.9	Over weight
30 – 34.9	Class i obese
35 – 39.9	Class ii obese
≥ 40	Class iii obese

The results of some students in S.2 include;

Name	**Age (years)**	**Height (cm)**	**Weight (g)**
Judith	14	165	64000
Charles	15	162	45000

Peace	15	156	69000

Task

(a) (i) Why is it important to know your BMI?
(ii) Calculate the BMI of the above three students. Comment on their BMI status.
(b) State three implications of being;
(i) Underweight.
(ii) Over weight.
(c) How can you advise a student who is;
(i) Underweight.
(ii) Overweight.

Part II

Item 3

Mandela of recent bought a piece of land. He planted maize and ground nuts at the onset of the rainy season. After sometime, the plants were showing stunted growth, having yellow small leaves, while some leaves had fallen off prematurely. On investigation, he found out that plants had very short poorly developed roots. On consultation from the agriculturalists, he was given a chemical which he mixed with water and sprayed on the crops. After two weeks, the plants had improved with many broad long leaves, many long roots and started flowering. Mandela is very happy.

(a) Identify the plant nutrients that were likely to be present in the chemical.
(b) (i) Explain how the above-named nutrients led to the increase in plant yields.
(ii) How did the plants overcome the challenges during growth.

E N D