

## S.3 BIOLOGY PAPER ONE

### Section A

#### Item 1

A report from national forestry authority (NFA) reveals that many medicinal plant species in natural forests are getting extinct. This is partly blamed on the traditional herbalists who cut roots, remove backs of the stems, harvest leaves and flowers from the trees in the forests.

#### Task.

- (a) Identify the processes being affected by the practices of the traditional herbalists to the medicinal plants.

.....  
.....  
.....  
.....  
.....

- b) Explain how the practices of the traditional herbalists affected the processes of the plants harvested.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

- c) Explain the control measures that can be done or put in place so that the herbalists do not make the medicinal plants extinct.

.....  
.....

.....  
.....  
.....  
.....  
.....  
.....

**Item 2**

Kennedy who was a young responsible man, joined a drinking group that he is so much attached to, drinks daily and heavily. His children are now out of school and looks malnourished. One evening as he was coming from his drinking joint, he fell down and broke his only pair of glasses that he has been using for long. Now Kennedy struggles to read at a far distance.

**Task.**

(a) How has Kennedy`s involvement in his group disorganized his family?

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

(b) What should be done in society to overcome the challenges related to those faced by Kennedy and his group?

.....  
.....  
.....  
.....  
.....  
.....  
.....

## SECTION B

### Item 3

Ritah has been smoking cigarettes, eating a lot of fatty foods and drinking fluids with a lot of sugar content. Ritah`s BMI was found to be higher than normal, she was advised to monitor her activity for one week.

On day 1, Ritah tried a physical exercise, she experienced heavy breathing, painful muscles cramps and produced a lot of sweat and her body became wet.

From day 2 to day 7, Ritah did not do any physical exercise but still felt body fatigue, difficulty in breathing and chest pain.

#### Task.

- (a) Explain Ritah`s experience from day 1 to day to day 7.
- (b) Apart from going to see a medical doctor, how can you advise Ritah to manage what she experienced from day 2 to day 7.

### Item 4

Residents of a certain developing town have pools of stagnant water near their houses. They use old pit latrines and pour their domestic wastes in the near-by garbage pits from where they rot. Their children frequently fall sick and they visit near-by health centers. In this town, there a few residents who planted some maize pants around their houses. However, it has been noted that these plants have been attacked by army worms (caterpillars)

#### Task

- (a) Explain to the residents how the conditions in their community caused the health state of their children.
- (b) Why should the pests mentioned be controlled?
- (c) How can the effects in the scenario be minimized?