

S101/1
GENERAL PAPER
Paper 1
July 2018
2 Hours 40 Minutes



ACEITEKA JOINT MOCK EXAMINATIONS 2018

Uganda Advanced Certificate of Education

GENERAL PAPER

Paper 1

2 Hours 40 Minutes

INSTRUCTIONS:

The total time of 2 hours and 40 minutes includes ten minutes for you to study the questions before you begin answering.

*Answer **two** questions which must be chosen as follows: **one** questions from section **A** and one questions from section **B***

You are advised to divide your time equally between the two questions

All questions carry equal marks.

*Any additional question(s) answered will **not** be marked.*

SECTION A:

Choose **one** of the following topics and write between **500 to 800** words

1. Examine the benefits and challenges of adopting Kiswahili as a national language in Uganda. (50 marks)
2. To what extent is industrialization the solution to unemployment in your country? (50 marks)
3. Explain the benefits and problems faced in teaching Information and Communication Technology (ICT) in secondary schools. (50 marks)
4. “Money is the root cause of evil in Uganda today.” Discuss. (50 marks)

SECTION B:

Answer **one** question from this section.

5. Study the information provided and answer the questions that follow.

Members of a diplomatic mission are dispatched from Adnagu to attend an important meeting in the neighboring country, Nyake. They are to travel by road due to shortage of aviation fuel in Adnagu.

The meeting is scheduled to begin at 2:00pm while the group plans to set off at 7:00am. There are two alternative routes, route **I** and route **II**.

Below are the facts the members have to consider when choosing the route to use:

- Route I is a murrum road from Bengo, the capital of Adnagu to Maracha, the capital of Nyake.
- It is 456km from Bengo to Maracha along route **I**.
- The stretch from Bengo to the next town, Worldville is fairly smooth, so the 72km can be covered at 90km/hr.

- Borna, which is 4 km from Worldville is -flooded and allows an average speed of only 20km/hr. They also receive information that a landslide had covered the road at Boma but that the excavators that will start work at 8:00am will take 1 hr to clear the road.
- The stretch from Boma, the smooth and straight 162km section enables a speed of 100km/hr up to Bonane. The next section of the journey from Bonane to Mbabane is 326km from Bengo and because it is hilly with sharp bends, it only allows a speed of 50km/hr.
- The last section of route from Mbabane to Maracha is wide, smooth and fairly straight and allows one to drive at 120km, the highest speed allowed by law in the country.

Route II

- The road is tarmac with a few obstacles along certain sections.
- From Bengo to Kafo: the next town, the 90km stretch is in good condition and allows one to move at 120 km/hr.
- At Kafo, there is a roadblock at which every person spends an average of 45 minutes.
- After the roadblock, the next 70km stretch to Ndola, has many sharp bends that reduces speed to an average of 80km/hr.
- The long stretch of 220 km from Ndola to Beira is without any obstacle and the average speed is 120km/hr. After Beira however, it must decrease to 20km/hr along the 30km stretch of thick traffic jam due to a busy road that crosses the route at Nkoyi.
- After the traffic jam, one can travel at 100km/hr up to Mayen which is 512 km from Bengo.
- From Mayen, all vehicles must move at 60km/hr along the 50km-bridge to Bukavu. The stretch from Bukavu to Maracha is narrow and godged between rocks and boulders, hence the average speed of 80km/hr.
- It is 600km from Bengo to Maracha along route 2.

Questions:

- (a) Determine the route members of the diplomatic mission would choose to reach Maracha in the shortest time possible (show your working). (08 marks)
- (b) At what time would they arrive at Maracha:
- (i) Along route I?
(04marks)
- (ii) Along route II?
(04marks)
- (c) Draw a graph showing the distance and time taken along both routes. (14 marks)
- (d) Account for the poor roads in certain parts of your country. (10 marks)
- SPGE** (10 marks)

6. Read the following passage and answer the questions that follow using your own words.

Last week's crack down on butchers and fish mongers accused of dosing their meats in inorganic salts and formalin, a preservative for dead bodies, to expand the meat's shelf life, has resurrected old questions about poor regulatory controls of farm produce.

Concerns have been reawakened that some farmers and middle men are selling beef, poultry products and vegetables that are contaminated with antibiotics, pesticides and herbicides. More than ten people have been arrested by Kampala City Council Authority health teams working with officials from the Uganda National Bureau of Standards. However, as authorities target butchereries and fish stalls other chemicals that could be harmful to human health are being applied to preserve tomatoes, vegetables, beans and ground nuts in markets.

On Monday the Observer walked through Nakasero and Wandegaya markets talking to traders and sellers of cooked food. Many of them admitted that they add chemicals to perishable food stuffs so as to extend their shelf life. Some of them said they get around the high costs of cooking gas, other fuels and electricity by adding pellets of Panadol in beans, chicken and cow hooves, which makes these foods to cook faster. Dr. Yasin Sebuko, working with Joy Medical Centre in Bweyogerere said that Panadol is preferred because it has an element called acetaminophen, which when used softens the tester of a bean seed and makes it easy to boil. Dr. Sebuko added that when Panadol is boiled at those high temperatures, it changes the normal functioning of the body cells, which could lead to cancer.

Other unscrupulous vendors inject steroids into both live animals and packed meat to increase their mass and weight. Steroids are organic compounds used among other things to build muscle. However, Dr. Sebuko said that steroids can weaken the immune system if consumed in meat and can also cause obesity. When steroids weaken the immune system, it gives chance for opportunistic infections to attack the person, and there will be little defense in the body. These diseases can be Candida, pneumonia, diarrhea and many others.

An article published in the US newspaper, Los Angeles Times, on July 11th 2016, titled, "why antibiotic use on farms help fuel antibiotic resistant diseases," warned that farm animals are a key player in the emergence of antibiotic resistance diseases. "Around the world, livestock producers feed antibiotics to cattle, pigs, chicken and other animals in a bid to prevent diseases and boost their growth. In the United States for instance some thirty million pounds of antibiotics are used on the farm. That is 70% of all the antibiotics used in the USA each year, according to the Pew Charitable Trusts, which is an NGO dedicated to improving public policy, informing the public and stimulating civic life.

Experts believe that this practice has hastened the emergency of antibiotic resistance diseases. When farm animals poop, these drug resistant bacteria wind up in soil and water. From there, they can spread to other animals, fueling the cycle. The organisms can find their way into humans if people consume under cooked meat of infected animals, or eat produce grown in soil contaminated by their waste.

To keep rats, cockroaches and weevils away from shops and storage facilities, vendors in Uganda use rodenticides and ammonia sprinkled in sacks of beans, ground nuts and other cereals. These contain chemicals such as cholecalciferol which if consumed by humans could cause a burning nose, throat and respiratory distress.

Florence Isabirye Muranga, a lecturer in the Department of Food Science and Technology at Maker-ere University said that vegetables should last be sprayed with chemicals at least two weeks before they are harvested. Harvested produce should also be washed thoroughly to reduce the health hazards it can cause. Meat and vegetables can remain good simply by packaging and not by chemicals. Florence said that the government should only allow packed meat or vegetables on the market.

One of the most potent hazards concerning meat sold at the butcher, is that several cows are slaughtered while they are sick. Such cows mean that they still have too much antibiotics in their blood. If you eat meat with antibiotics, it means that the animal didn't cure properly, and therefore you can also contract the disease that animal was suffering from. Then the too many antibiotics you

have got from the meat of the sick animal you consumed will mean that your body will be resistant to several drugs. This is when your body will be treated for any sickness you will have got but it will not respond to certain drugs.

Dr. Sebuko added that if one's body is free from disease, and you take in meat with antibiotics, useful defensive cells in the body called normal flora will be killed, thus weakening your immunity. It could also affect other body organs such as the liver, kidney and heart just like any antibiotics. Experts say that an animal to be slaughtered, should have last been injected with any drug about two weeks before, but the window period varies from drug to drug,

Dr. Jimmy Spire Ssentongo, on 7th December. 2017, noted that Nsenene (grass hopper) trappers were poisoning the insects to boost their catch. They use pesticides and other intoxicating substances which they smoke and spray up in the air at the nsenene. It has also been suspected that some trappers use formalin to keep the nsenene from smelling. One nsenene trader in Nakasero market confirmed the truth in what Dr. Ssentongo had 'said. The trader said that she knows that some "chemical" is put in the nsenene before the insects are bundled into sacks for sale. Several butchers and diary product sellers are not aware of the potential dangers of these chemicals and they do not care to find out as long as they are making money.

Dr. George Okello, a gastroenterologist with Kampala International Hospital. said that the consumption of these chemicals will hurt the people in the long run. "Formalin for example cannot be used in large quantities before you detect it. This is because it smells and could harden the meat. So I think these fellows use small amounts that cannot have an immediate effect on the person. But if consumption is prolonged, then it gets really dangerous," Dr. Okello said. He said that in the short run one can experience burning sensation in the eyes, nose and throat, coughing nausea and skin irritation. Medical experts said that consumption of these chemicals could cause cancer and damage to the kidneys. According to the USA National Cancer Institute, 1980 Laboratory Studies, showed that exposure to Formalin could cause Cancer of the nose.

Questions:

- (a) Suggest a title for this passage. (02 marks)
- (b) Explain how Formalin and Steroids can be dangerous to the person who has consumed food stuffs where these chemicals have been applied. (06 marks)
- (c) In not more than 100 words summarize how traders contaminate each food stuff with chemicals in an attempt to prolong their shelf life. (12 marks)

(d) Explain the meaning of the following words and phrases as used in the passage.

- (i) poor regulatory controls....
- (ii) contaminated with antibiotics....
- (iii) add chemicals to perishable food stuffs....
- (iv) they get around the high costs....
- (v) adding pellets of Panadol....
- (vi) changes the normal functioning of the body cells....
- (vii) unscrupulous vendors....
- (viii) fuel antibiotic resistant infections
- (ix) opportunistic infections
- (x) intoxicating substances

(20 marks)

SPGE

(10 marks)

END