SECTION A

ELEMENT OF CONSTRUCT TWO

How plants obtain and use nutrients to meet their energy requirements during which raw materials and products are carried to and from various organs.

PLANT BIOLOGY ITEMS

ITEM 1

In Kasese, a student group from St. Theresa Secondary School planted maize as a school project. During the growing season, they experienced poor rains, high temperatures, and frequent strong winds. The maize leaves curled up during the day and developed a dull green color. Some plants had short stems with few leaves. Later, they applied compost manure and watered the plants using watering cans. Eventually, a few maize plants grew taller and formed small cobs.

Task

(a) Explain how the following affected the maize plants:

(i) High temperature and wind

(ii) Inadequate rainfall

(b) Describe how the maize plants recovered and managed to form small cobs.

ITEM 2

In Kabale, farmer Akim planted bananas in a field near a rocky slope. During the rainy season, heavy rains caused soil erosion, washing away topsoil and exposing roots. Some banana suckers were physically damaged, while others developed weak yellow leaves and short pseudostems. Weevils also attacked the roots of some banana plants. After the rainy season, Akim added mulch and organic matter. A few banana plants recovered and produced small bunches.

Task

(a) Explain how the following affected the banana plants:

(i) Soil erosion and root exposure

(ii) Weevil attack

(b) Describe how the banana plants survived and eventually formed small banana bunches.

ITEM 3

At a school demonstration garden in Tororo, students planted cassava using cuttings. A prolonged dry season followed, with limited rainfall and intense sunlight. The cassava cuttings had few leaves, some wilted, and others failed to grow. Termites also damaged several cuttings underground. However, some cuttings that were planted in shaded areas began to sprout when light rains returned. These later developed new leaves and thicker stems.

Task

(a) Describe how the following affected the cassava plants:

(i) Prolonged drought

(ii) Termite attack

(b) Explain how the cassava plants survived and developed after the return of light rains.

ITEM 4

In Mityana, farmer Rose planted beans in her garden. During the wet season, the soil became waterlogged, and the leaves of the bean plants turned yellow. Some plants showed poor flowering, and the stems became soft and weak. Aphids also infested the plants, sucking sap from the soft parts. After the rains, Rose drained the field and applied wood ash to the aphid-infested plants. Some beans recovered and produced a small harvest.

Task

(a) Explain how the following affected the bean plants:

(i) Waterlogging

(ii) Aphid infestation

(b) Describe how the bean plants recovered and managed to yield after drainage and ash application.

ITEM 5

In Arua, a school agricultural club grew sunflower in an open field. Midway through the season, locusts invaded the region and fed on leaves and stem tips. Shortly after, the region experienced dry winds and high day temperatures. Most plants became stunted with

small flower heads, and many leaves dried up. However, a few plants survived, grew new leaves and flowered after rains returned and the locusts left.

Task

(a) Explain how the following affected the sunflower plants:

(i) Locust attack

(ii) Dry winds and high temperatures

(b) Describe how the sunflower plants recovered and managed to flower after the rains.

ITEM 6

In Luwero, farmer Nalongo planted tomatoes in her backyard garden. During the growing season, heavy rains caused continuous flooding, while whiteflies infested the tomato leaves. The leaves turned yellow, and the stems softened. Some fruits dropped before ripening. Nalongo then removed the infested plants, improved drainage, and replanted some cuttings. The new plants grew upright and produced fewer but healthier fruits.

Task

(a) Describe how the following affected the tomato plants

(i) Flooding

(ii) Whitefly infestation

(b) Explain how the tomato plants managed to recover and produce fruits after intervention.

ITEM 7

In Bushenyi, a school agriculture project involved growing passion fruit. The vines were supported on wires, but the field was close to a dusty road and had limited rainfall. Dust settled on the leaves, blocking stomata. The vines developed pale green leaves and few flowers. Thrips also damaged the flowers. Later, the students mulched the garden and watered it regularly. Some vines revived and started producing purple fruits.

Task

(a) Explain how the following affected the passion fruit plants:

(i) Dust and limited rainfall

(ii) Thrip damage

(b) Describe how the vines recovered and managed to produce fruits after regular care.

ITEM 8

In Hoima, farmer Muwanga planted sugarcane on a large piece of land. A fire outbreak during the dry season burnt the older leaves and outer stem tissues of many sugarcane plants. The region also had high daytime temperatures and no rainfall for several weeks. However, some sugarcane stalks with underground nodes later sprouted again when rains resumed. These plants grew new shoots and developed strong stems.

Task

(a) Explain how the following affected the sugarcane plants:

(i) Fire damage

(ii) High temperature and drought

(b) Describe how the sugarcane plants managed to regenerate and grow after the rains.

ITEM 9

In Mukono, a group of young farmers grew yams in a wetland area. During the early stages of growth, snails attacked the yam leaves at night, eating large portions of them. The region also experienced unusually low temperatures. The yams developed soft stems, slow growth, and fewer tubers. After applying ash and hand-picking the snails, and as temperatures increased, the plants improved and started forming more tubers.

Task

(a) Explain how the following affected the yam plants:

(i) Snail attack

(ii) Low temperature

(b) Describe how the yam plants survived and later formed tubers.

ITEM 10

In Gulu, farmer Ayaa grew okra on sandy soil. During the dry season, strong hot winds blew across the garden, and termites attacked the lower stems. The okra leaves curled and dropped, and the plants became weak and stunted. After applying cow dung to enrich the soil and spraying termite repellents, some plants

developed new leaves and managed to form small pods.
Task
(a) Explain how the following affected the okra plants:
(i) Sandy soil and strong winds
(ii) Termite attack
(b) Describe how the okra plants survived and produced pods after soil improvement and pest control.

ITEM 11
In Masaka, students in an agricultural club planted pawpaw trees. However, the area experienced a dry season with high daytime temperatures and very little rainfall. Some plants had leaves that turned brown and dropped. Mealybugs attacked the stems and leaves. The affected trees had short internodes and produced small, unripe fruits. After spraying the pests and watering the garden regularly, the plants grew taller and bore larger fruits.
Task
(a) Explain how the following affected the pawpaw plants:
(i) Drought and high temperature
(ii) Mealybug infestation
(b) Describe how the pawpaw plants recovered and produced fruits after pest control and watering.

ITEM 12
In Mityana, farmer Okello grows maize on his small farm. During a prolonged dry season, his maize plants faced high temperatures, strong winds, and an infestation of armyworms that ate leaves and stems. The plants showed drooping leaves, small cobs, and some had wilted completely. Okello noticed that early morning dew helped some plants recover slightly, but his yields were much lower than his neighbor's irrigated field.
Task:
(a) Explain how the following affected Okello's maize plants, leading to poor yields:
(i) High temperatures
(ii) Strong winds
(iii) Armyworm infestation
(b) Describe how the maize plants managed to produce some cobs despite these challenges.

ITEM 13
In Gulu, farmer Auma cultivates beans near a riverbank. Heavy rains caused waterlogging, locusts attacked the leaves, and dense weeds blocked sunlight. Her bean plants had yellow leaves, stunted growth, and few pods, with some plants wilting. After the rains reduced, Auma propagated new plants from seeds, and some produced pods, though yields were lower than nearby farms.
Task:
(a) Explain how the following affected Auma's bean plants:
(i) Waterlogging
(ii) Locust attack
(iii) Dense weeds
(b) Describe how the bean plants recovered to produce some pods.

ITEM 13
In Kabale, farmer Byamukama grows cabbages on a hilly farm. A dry season brought intense sunlight, dry winds, and an outbreak of aphids that sucked sap from stems. His cabbages had small, pale heads, drooping leaves, and some plants stopped growing. When cooler weather arrived, some cabbages revived, producing small heads, though yields were lower than unshaded farms.
Task:
(a) Explain how the following affected Byamukama's cabbages:
(i) Intense sunlight
(ii) Dry winds
(iii) Aphid outbreak
(b) Describe how the cabbages managed to produce some heads.

ITEM 14
In Lira, farmer Adongo plants millet in a low-lying area. During a wet season, flooding occurred, caterpillars ate the leaves, and thick cloud cover reduced sunlight. Her millet plants showed yellowing leaves, weak stems, and few grains, with some plants rotting at the roots. After the floods subsided, Adongo used stem

cuttings for propagation, and some plants produced grains, though yields were poor compared to upland farms.
Task:
(a) Explain how the following affected Adongo's millet plants:
(i) Flooding
(ii) Caterpillar damage
(iii) Thick cloud cover
(b) Describe how the millet plants produced some grains after propagation.

ITEM 15
In Masaka, Farmer Nankya Grows Tomatoes On Her Farm. A Season Of Heavy Winds, Locust Swarms, and low temperatures slowed plant growth. Her tomatoes had drooping leaves, small fruits, and some plants were stunted due to pest damage. When conditions improved, some plants recovered, producing small tomatoes, but yields were lower than farms with better conditions.
Task:
(a) Explain how the following affected Nankya's tomato plants:
(i) Heavy winds
(ii) Locust swarms
(iii) Low temperatures
(b) Describe how the tomato plants managed to produce some fruits

ITEM 16
In Arua, farmer Okumu grows cowpeas on his small farm near a forest. During a hot, dry season, his cowpea plants faced intense heat, aphid infestations, and sandy soil erosion from strong winds. The plants had drooping leaves, small pods, and some wilted completely. Early morning moisture and reduced aphid numbers helped some plants recover slightly, but Okumu's yields were lower than those of farmers with irrigated fields.
Task:
(a) Explain how the following affected Okumu's cowpea plants, leading to poor yields:
(i) Intense heat
(ii) Aphid infestation
(iii) Soil erosion from winds
(b) Describe how the cowpea plants managed to produce some pods despite these challenges.

ITEM 17
In Masindi, farmer Akello cultivates sunflowers in a low-lying field. Heavy rainfall caused flooding, caterpillars chewed the leaves, and thick clouds reduced sunlight. Her sunflower plants showed yellowing leaves, weak stems, and few flower heads, with some roots rotting. When the rains eased, Akello propagated new plants from seeds, and some produced small flower heads, though yields were lower than upland farms.
Task:
(a) Explain how the following affected Akello's sunflower plants:
(i) Flooding
(ii) Caterpillar damage
(iii) Reduced sunlight
(b) Describe how the sunflower plants recovered to produce some flower heads.

ITEM 18
In Mukono, farmer Namutebi grows eggplants on a hilly farm. A dry season brought strong winds, locust swarms, and high temperatures, causing her eggplants to have drooping leaves, small fruits, and stunted growth. Some plants wilted entirely. Cooler evenings and reduced pest activity allowed some recovery, producing small fruits, but yields were lower than farms with better conditions.
TASK:
(a) Explain how the following affected Namutebi's eggplant plants:
(i) Strong winds
(ii) Locust swarms
(iii) High temperatures
(b) Describe how the eggplant plants managed to produce some fruits.

ITEM 19
In Lira, farmer Odongo plants sesame in a field near a swamp. During a wet season, waterlogging occurred, beetles ate the leaves, and dense weeds blocked sunlight. His sesame plants had pale leaves, weak stems, and few

seeds, with some plants rotting at the roots. After the floods subsided, Odongo used stem cuttings for propagation, and some plants produced seeds, though yields were poor compared to drier farms.
Task:
(a) Explain how the following affected Odongo's sesame plants:
(i) Waterlogging
(ii) Beetle damage
(iii) Dense weeds
(b) Describe how the sesame plants produced some seeds after propagation.

ITEM 20
In Kabarole, farmer Byaruhanga grows green peppers on his farm. A season of low temperatures, aphid infestations, and heavy winds caused his pepper plants to have small, pale fruits, drooping leaves, and stunted growth. Some plants stopped growing entirely. When conditions improved, some plants recovered, producing small peppers, but yields were lower than farms with sheltered fields.
Task:
(a) Explain how the following affected Byaruhanga's green pepper plants:
(i) Low temperatures
(ii) Aphid infestations
(iii) Heavy winds
(b) Describe how the pepper plants managed to produce some fruits.

ITEM 21
In Kumi District, farmer Otim planted millet on a sloped hillside. During the rainy season, heavy rainfall caused surface runoff and soil erosion. This exposed some plant roots and washed away topsoil. Later, armyworms invaded the garden and fed on young millet shoots and leaves. The plants became stunted, with thin stems and few seed heads. After applying compost and hand-picking the worms, some millet plants grew new leaves and produced small heads with grains.
Task
(a) Explain how the following affected the millet plants:
(i) Soil erosion and root exposure
(ii) Armyworm infestation
(b) Describe how the millet plants managed to survive and form grains after control measures were taken.

ITEM 22
In Mbarara, a group of students planted sweet potatoes for a science project. The garden received very little rainfall, and the soil cracked. The vines had small, curled leaves, and some leaves turned brown and dry. Ants also attacked the underground storage roots. After the students irrigated the garden and added mulch, some vines recovered and formed larger storage roots.
Task
(a) Explain how the following affected the sweet potato plants:
(i) Dry soil and high temperature
(ii) Ant attack on storage roots
(b) Describe how the sweet potato plants managed to recover and produce roots after watering and mulching.

ITEM 23
In Iganga, farmer Zawedde grew cabbage in a garden near a rubbish dumping site. The soil was contaminated with plastics and other waste, making it hard and poor in nutrients. Flies laid eggs on the cabbages, and their larvae bored into the stems and leaves. The cabbage heads became deformed and smelly. After removing the waste, improving soil with compost, and spraying the flies, some plants formed smaller but healthy heads.
Task
(a) Describe how the following affected the cabbage plants:
(i) Contaminated soil and poor nutrient content
(ii) Larvae infestation
(b) Explain how the cabbage plants managed to recover and form heads after waste removal and spraying.

ITEM 24
In Tororo, a school garden planted climbing beans along wooden stakes. Mid-season, strong winds blew down some stakes, causing plants to bend and break. Later, fungal infections spread

due to humid weather, causing black spots on leaves. Some plants dropped leaves early. The students tied the plants back and sprayed a fungicide. Afterward, some plants developed new leaves and produced pods.
Task
(a) Explain how the following affected the bean plants:
(i) Strong winds and physical damage
(ii) Fungal infection
(b) Describe how the beans managed to grow and produce pods after support and spraying.

ITEM 25
In Kalangala Islands, farmer Basudde grew pineapples in a field close to the lake. The area was often hit by salty lake winds. Salt accumulated in the soil, and water became less available to the plant roots. Additionally, moles damaged some underground roots. Many pineapple leaves turned yellow, and some fruits were underdeveloped. After applying organic matter and trapping the moles, some pineapple plants regained health and formed full-sized fruits.
Task
(a) Explain how the following affected the pineapple plants:
(i) Salty winds and soil
(ii) Mole damage to roots
(b) Describe how the pineapple plants survived and produced fruits after intervention.

ITEM 26
In Gulu, farmer David planted sesame in a low-lying field. During a wet season, waterlogging occurred, caterpillars ate the leaves, and thick clouds reduced sunlight. The sesame plants had pale leaves, few seeds, and weak stems. After the floods subsided, David used stem cuttings for propagation and removed caterpillars. Some plants produced seeds, but yields were poor compared to drier farms, causing concern for his family's food security.
Task:
(a) Explain how the following environmental challenges affected the sesame plants:
(i) Waterlogging
(ii) Caterpillar infestation
(iii) Reduced sunlight
(b) Describe how the sesame plants managed to produce some seeds after propagation.

ITEM 27
In Masaka, a women's group planted sweet potatoes in a community garden. During a dry season, low rainfall caused soil cracks, ants attacked the roots, and hot winds dried the leaves. The sweet potato vines had small, curled leaves and few tubers. After rains returned, the group mulched and used pest traps. Some vines produced tubers, but yields were lower than irrigated fields, disappointing the group.
Task:
(a) Explain how the following environmental challenges affected the sweet potato plants:
(i) Low rainfall
(ii) Ant infestation
(iii) Hot winds
(b) Describe how the sweet potato plants managed to produce some tubers despite these challenges.

ITEM 28
In Kabale, farmer Mary grew cabbages on a hilly farm. During a hot season, intense sunlight scorched the leaves, aphids sucked sap from stems, and dry winds increased evaporation. The cabbage plants had small heads, yellow leaves, and stunted growth. After cooler weather arrived, Mary watered the plants and applied ash to control aphids. Some plants produced small heads, but yields were lower than shaded farms, worrying her family about market sales.
Task:
(a) Explain how the following environmental challenges affected the cabbage plants:
(i) Intense sunlight
(ii) Aphid infestation
(iii) Dry winds
(b) Describe how the cabbage plants managed to produce some heads despite these challenges.

ITEM 29
In Lira, a school agriculture club planted tomatoes in an open field. During a wet season, heavy rains caused flooding, whiteflies infested the leaves, and dense weeds blocked sunlight. The tomato plants had yellow leaves, small fruits, and weak stems. After the floods subsided, the students cleared weeds and sprayed the whiteflies. Some plants produced fruits, but yields were lower than upland farms, causing disappointment among the students.
Task:
(a) Explain how the following environmental challenges affected the tomato plants:
(i) Flooding
(ii) Whitefly infestation
(iii) Dense weeds
(b) Describe how the tomato plants managed to produce some fruits despite these challenges.

ITEM 30
In Mukono, farmer John grew millet in a field near a swamp. During a dry season, hot winds dried the soil, locusts ate the leaves, and heavy weeding caused nutrient loss. The millet plants had drooping leaves, small grains, and thin stems. After rains returned, John added compost and removed locusts. Some plants produced grains, but yields were lower than other farms, worrying his family about food security.
Task:
(a) Explain how the following environmental challenges affected the millet plants:
(i) Hot winds
(ii) Locust infestation
(iii) Nutrient loss from weeding
(b) Describe how the millet plants managed to produce some grains despite these challenges.

ELEMENT OF CONSTRUCT FOUR

How the human body coordinates various activities and adjusts to ensure normal Functioning of the body.

COORDINATION, RECEPTOR ORGANDS AND LOCOMOTION

ITEM 1
In Lira, 17-year-old Sarah, a Senior 3 student, has been smoking cigarettes with friends after school, leading to frequent coughing and difficulty breathing during sports. One day, while running to catch a bus, she heard a loud car horn, causing her heart to race and her legs to cramp, making her stumble. Her teachers also noticed her struggling to read the chalkboard, affecting her class performance.

Task:
(a) Explain how the following affected Sarah's body:
(i) Cigarette smoking
(ii) Heart racing and leg cramps
(iii) Difficulty reading the chalkboard
(b) Suggest ways Sarah can manage her health challenges to improve her school performance.

ITEM 2
In Mbarara, 15-year-old Peter, a Primary 7 pupil, started drinking alcohol with older boys in his village, causing him to become aggressive and lose focus in class. During a school debate, he suddenly felt dizzy, his heart pounded, and his vision blurred, making him sit down abruptly. His aggressive behaviour worried his parents, who noticed his poor academic performance.

Task:
(a) Explain how the following affected Peter's body:
(i) Alcohol use
(ii) Dizziness and blurred vision
(iii) Heart pounding
(b) Suggest ways Peter can overcome his health challenges and improve his behavior.

ITEM 3
In Soroti, 16-year-old Auma, a Senior 4 student, was diagnosed with weak bones due to poor

diet, risking fractures. During a school dance practice, a loud drum sound startled her, causing her heart to race and hands to sweat. She tripped while dancing, spraining her ankle due to weak muscles and bones. Her classmates teased her for being clumsy, affecting her confidence.
Task:
(a) Explain how the following affected Auma's body:
(i) Weak bones from poor diet
(ii) Heart racing and sweating
(iii) Sprained ankle
(b) Suggest ways Auma can manage her health to stay active in school activities.

ITEM 4
In Kampala, 18-year-old Joseph, a football player, uses marijuana, leading to memory problems and slow reactions during matches. One day, while playing, he heard a loud whistle, causing his heart to pound and legs to cramp, making him fall. He also struggled to see the ball clearly from a distance, affecting his game performance and worrying his coach.
Task:
(a) Explain how the following affected Joseph's body:
(i) Marijuana use
(ii) Heart pounding and leg cramps
(iii) Poor vision during the match
(b) Suggest ways Joseph can manage his health to improve his football performance.

ITEM 5
In Mbale, 14-year-old Grace, a Primary 6 pupil, has been sniffing glue with street children, causing frequent headaches and tiredness. During a school race, a loud starting gun made her heart race and her hands tremble, leading to a fall and muscle cramps. Her parents noticed she struggles to hear teachers clearly, affecting her studies and worrying them about her health.
Task:
(a) Explain how the following affected Grace's body:
(i) Glue sniffing
(ii) Heart racing and trembling
(iii) Poor hearing
(b) Suggest ways Grace's parents can help her manage her health challenges.

ITEM 6
In Fort Portal, 16-year-old Jane, a Senior 2 student, has been drinking alcohol with friends after school, leading to frequent headaches and poor memory during lessons. One day, while fetching water from a well, she tripped on a stone, causing her heart to race and her legs to cramp, making her drop the jerrycan. Her teachers noticed she struggles to see the chalkboard clearly, affecting her grades, and her parents are worried about her behavior.

Task:
(a) Explain how the following affected Jane's body:
(i) Alcohol consumption
(ii) Heart racing and leg cramps
(iii) Difficulty seeing the chalkboard
(b) Suggest ways Jane can manage her health challenges to improve her school performance.

ITEM 7
In Arua, 15-year-old Michael, a Primary 7 pupil, was diagnosed with weak bones due to poor nutrition, making him prone to injuries. During a school play, a loud clap of thunder startled him, causing his heart to pound and hands to sweat. He slipped and twisted his ankle, unable to walk properly due to pain. His classmates teased him for being weak, lowering his confidence and school participation.

Task:
(a) Explain how the following affected Michael's body:
(i) Weak bones from poor nutrition
(ii) Heart pounding and sweating
(iii) Twisted ankle
(b) Suggest ways Michael can manage his health to stay active in school activities.

ITEM 8
In Mbale, 17-year-old David, a Senior 3 football player, has been using khat (a stimulant), causing restlessness and difficulty focusing during matches. One day, while sprinting on the field, he heard a loud whistle, triggering rapid breathing and leg cramps, leading to a fall. He also struggles to hear the coach's instructions clearly, affecting his performance, and his team worries about his health.
Task:
(a) Explain how the following affected David's body:
(i) Khat use
(ii) Rapid breathing and leg cramps
(iii) Poor hearing
(b) Suggest ways David can manage his health to improve his football skills.

ITEM 9
In Soroti, 14-year-old Esther, a Primary 6 pupil, has been exposed to secondhand smoke from her uncle's cigarettes, causing frequent coughing and tiredness. During a school race, a loud starting gun made her heart race and her hands tremble, causing her to stumble. She also struggles to see distant objects, affecting her ability to copy notes, and her parents are concerned about her declining grades.
Task:
(a) Explain how the following affected Esther's body:
(i) Secondhand smoke exposure
(ii) Heart racing and trembling
(iii) Poor vision
(b) Suggest ways Esther's parents can help her manage her health challenges.

ITEM 10
In Gulu, 18-year-old Brian, a Senior 4 student and school prefect, has been chewing tobacco, leading to poor concentration and slow reactions during debates. One day, while climbing stairs, he tripped after a loud bang from a falling chair, causing his heart to pound and legs to cramp. He also finds it hard to read small text on the blackboard, affecting his leadership duties, and his teachers are worried about his health.
Task:
(a) Explain how the following affected Brian's body:
(i) Tobacco use
(ii) Heart pounding and leg cramps
(iii) Difficulty reading small text
(b) Suggest ways Brian can manage his health to improve his school leadership.

ITEM 11
Namugga, a 16-year-old girl in Wakiso, was diagnosed with hormonal imbalance and often had mood swings, heavy sweating, and irregular heartbeat. Her classmates noticed that she would suddenly get dizzy in class and sometimes faint. One day, after receiving news that her cousin had been arrested, her body shook, her eyes widened, and her heartbeat increased rapidly. Doctors explained that these were due to the body's response to stress.
TASK:
(a)(i) Describe how the endocrine system and specific hormones helped Namugga respond to the stressful news.
(ii) Explain how the brain and reflex action were involved in the sudden body response.
(d) Suggest how Namugga can manage stress and maintain hormonal balance.

ITEM 12
Moses, a 17-year-old football captain in Arua, experienced sudden pain in his thigh muscles during a school match. He tried to continue playing but later collapsed due to cramps. His coach realized that Moses had not eaten well the whole day and had drunk only a bottle of soda. He also noticed that Moses had difficulty seeing the ball at a distance and had complained of blurry vision during training.
TASK:
(a) Describe how the nervous system and muscles work together during movement.
(b) (i)Identify Moses's likely eye defect and explain how it can be corrected.
(ii) Suggest how Moses can improve his diet and vision to perform better as an athlete.

ITEM 13
Grace, a P.6 pupil in Kabale, started struggling in class due to frequent urination, tiredness, and hunger even after meals. She also complained of back pain and sometimes missed school because of headaches and dizziness. Her parents took her for a check-up and found that her insulin levels were low. One day, during a noisy school debate, Grace covered her ears and fainted due to panic.
TASK:
(a)(i) Link the cause of the challenge to her health condition.
(ii) Describe the function of the brain in controlling emotions and how it responds to loud sounds.
(b) Suggest ways Grace's parents can support her in managing her condition and staying healthy in school.

ITEM 14
Allan, a 16-year-old student from Soroti, enjoys playing loud music through headphones every evening. Over time, he started experiencing ringing in his ears, loss of balance while walking, and slow reactions during class activities. One day, while crossing a busy road near his school, he failed to hear an oncoming boda-boda and was knocked down, injuring his leg. Doctors found that he had damaged his inner ear and fractured his tibia bone.
TASK:
(a) Explain how the reflex arc could have helped Allan avoid the accident.
(b) Suggest how Allan can prevent further ear damage and improve his body coordination.

ITEM 15
Kevin, a Senior Four student in Masaka, started using cocaine during the school holidays. After some months, his teachers noticed that he became aggressive, had difficulty concentrating, and often complained of tired legs and poor night vision. One evening, while rushing to catch a bus, he suddenly collapsed due to muscle cramps and blurred vision. Health workers confirmed that Kevin had a hormonal imbalance and vitamin A deficiency.
TASK:
(a)(i) Describe the effect of cocaine on Kevin's nervous system and behaviour.
(ii) Explain how muscles and nerves work together to bring about limb movement.
(b) Suggest how Kevin can recover from his addiction and manage his health conditions.

ITEM 16
At a school assembly in Fort Portal, Diana, a Senior Two student, fainted after hearing the sharp sound of a police siren outside the school gate. Her eyes widened, her heartbeat increased, and she began to sweat before collapsing. She had previously been diagnosed with osteoporosis and poor vision. After the incident, she was rushed to the hospital where they confirmed a fractured pelvic bone.
TASK:
(a)(i) Describe how Diana's body responded to the loud sound
(ii) Explain how the reflex arc works during a sudden threat.
(b) Suggest how Diana can manage both her weak bones and eye condition.

ITEM 17
In Mityana, 17-year-old Paul, a Senior 3 student and volleyball player, has been using a local stimulant herb, leading to restlessness and poor focus during games. During a match, a loud cheer from the crowd startled him, causing his heart to pound and his arms to cramp, making him miss a serve. He also struggles to see the ball clearly from a distance, affecting his performance, and his coach is concerned about his health.
Task:
(a) Explain how the following affected Paul's body:
(i) Stimulant herb use
(ii) loud cheer from the crowd
(b) Suggest ways Paul can manage his health to improve his volleyball performance.

ITEM 18
At a boda-boda stage in Mbale, Isaac, a young man, often drinks a lot of alcohol and sometimes

smokes marijuana. One evening, while rushing home, he suddenly lost balance and stumbled (Lost balance) but did not fall. His friends noticed his speech was slurred, and he had difficulty hearing sounds clearly. Isaac often complains of headaches and blurred vision.
Task:
(a) (i)Explain how alcohol and marijuana affect Isaac's brain functions, hearing, and vision.
(ii). Describe how Isaac's body uses reflex actions to help him avoid falling when he stumbles.
(c) Suggest ways Isaac can improve his health and avoid problems caused by drug abuse.

ITEM 19
Amina, a P.5 pupil in Soroti, has difficulty seeing the chalkboard clearly from the front seats in class. Sometimes her eyes hurt after reading, and she squints to see distant objects. Her parents take her to a clinic where she is diagnosed with shortsightedness. Meanwhile, her friend Rashid complains of headaches and sudden muscle cramps in his legs after football practice.
Task:
(a) (i)Explain how the human eye works and what causes short-sightedness in Amina.
(ii)Describe the causes of muscle cramps in Rashid and how muscles work to produce movement.
(c) Suggest simple ways Amina and Rashid can manage their conditions to improve school performance and sports.

ITEM 20
In Gulu, Ronald, a 17-year-old student, was walking home when he suddenly touched a hot iron and quickly withdrew his hand. His heart rate increased, and he felt anxious. Ronald's doctor later explained to him how his body reacted quickly without thinking.
Task:
(a) (i) Describe the reflex action and reflex arc that occurred when Ronald touched the hot iron.
(ii) Explain the role of the brain and spinal cord in coordinating this reflex.
(c) Explain how the endocrine system might also respond during the sudden shock.

ITEM 21
At a primary school in Kampala, Sarah experiences severe headaches and poor concentration. The teacher noticed she often complains of joint pain and feels tired. A medical check-up showed Sarah has poor calcium levels affecting her bones. The doctor explained that her skeleton has two main parts: the axial and appendicular skeleton.
Task:
(a)(i) Describe the main parts of the human skeleton and their functions.
(ii) Explain how calcium deficiency affects Sarah's bones and joints.
(c) Suggest ways Sarah can improve her bone health through diet and lifestyle.

ITEM 22
During a football game in Fort Portal, Moses suddenly experienced muscle cramps in his legs. His vision also became blurry for a few minutes. His coach advised him to rest and drink plenty of fluids.
Task:
(a)(i) Explain the causes of muscle cramps and how muscles work to allow movement.
(ii)Describe the structure and functioning of the human eye, and why blurry vision might occur during intense exercise.
(c) Suggest ways Moses can prevent muscle cramps and maintain good vision as an athlete.

ITEM 23
In Masindi, Peter, a young man who works as a mechanic, has been using cocaine frequently. Lately, his friends noticed that Peter has poor muscle coordination and often complains of ringing in his ears and difficulty hearing conversations. One day, after a sudden loud noise in the workshop, Peter startled and quickly moved away from the source but felt dizzy and weak.
Task:
(a)(i) Explain how cocaine affects Peter's brain functions, muscles, and hearing ability.
(ii)Describe the reflex action that helped Peter move quickly away from danger.

(c) Suggest ways Peter can recover from the effects of drug abuse and improve his health.

ITEM 24
In Mukono, Jane, a secondary school student, experiences difficulty seeing distant objects clearly, and sometimes her vision is blurry after reading. During sports, she often gets muscle cramps and complains of back pain. Her doctor explains that her spine is part of the axial skeleton, and her muscle cramps may be caused by dehydration.
Task:
(a) Explain the causes of Jane's blurry vision and muscle cramps, including how muscles work during movement.
(c) Suggest practical ways Jane can manage her vision problem and prevent muscle cramps.

ITEM 25
At a trading centre in Mbale, a group of young people were inhaling petrol fumes and drinking alcohol. Some started showing poor balance, blurred vision, and slow reflexes. One evening, one of them fell and injured his arm but did not feel the pain immediately because of slowed nerve responses.
Task:
(a) (i)Explain how inhaling petrol fumes and drinking alcohol affect the brain, vision, and reflex actions.
(ii)Describe the pathway of a reflex arc and how slowed nerve signals affect pain perception.
(c) Suggest how these young people can avoid health problems related to substance abuse.

ITEM 26
In Kampala, Rose, a P.6 pupil, struggles with short-sightedness and frequently experiences headaches after reading. During football practice, she also suffered muscle cramps in her calves. Her parents took her to a clinic where she was advised to rest, eat balanced meals, and get an eye test.
Task:
(a) (i)Explain how short-sightedness occurs.
(ii)Describe the causes of muscle cramps and how muscles contract and relax during movement.
(c) Suggest strategies Rose can make to improve her vision and prevent muscle cramps.

ITEM 27
Angela, a Senior Five student in Gulu, started feeling weak and tired after standing for a short time in class. She also noticed her bones paining and felt dizzy when she tried to walk faster. One morning during parade, she fainted. The school nurse reported that Angela had weak leg bones, muscle fatigue, and hormonal imbalance due to poor nutrition. Her reflexes were also slow, and she struggled to concentrate in class.
TASK
(a)(i) Explain how Angela's skeleton and muscles work together and why she got tired easily.
(ii) Describe the role of hormones and reflex action in daily body function and how poor nutrition may affect them.
(b) Suggest how Angela can improve her body function and manage her hormonal and bone health through proper diet and rest.

ITEM 28
Fred, a football captain in S.6 at a school in Lira, trained daily to improve his performance. One match day, as he was dribbling past opponents, he felt his leg muscles tighten and his vision became blurred due to sweat entering his eyes. He tried to continue but collapsed due to severe muscle cramps. The sports teacher explained that poor warm-up and dehydration were the main causes.
TASK
(a)(i). Describe how Fred's muscles and skeleton coordinate to allow movement while playing football.
(ii) Explain how the eye functions and why his vision was affected during the match.
(b) Suggest how Fred can prevent muscle cramps and maintain clear vision while playing sports.

ITEM 29
Peace, a mother of two living in Jinja, had been struggling with frequent mood swings, tiredness, and difficulty sleeping. She also started noticing that she had gained weight suddenly and her eyesight was worsening. After medical tests,

doctors found that her body had a hormonal imbalance and she was developing short-sightedness.
TASK
(a) (i) Describe how hormones control body functions and how their imbalance could have affected Peace.
(ii) Explain the biological process of vision and how short-sightedness affects daily life.
(b) Suggest ways Peace can manage her hormone levels and correct her eye defect to live a healthy and productive life.

ITEM 30
In Jinja town, Musa, a 15-year-old student, started consuming cheap local potent spirits ("waragi") with friends after football matches. Recently, he has become forgetful, struggles to concentrate in class, and his hands often shake. One evening, walking home near the Nile, he stumbled on a rock. Although he saw it late, his body jerked violently to avoid a bad fall, scraping his arm instead.
Task:
(a) Explain:
(i) How Musa's consumption of waragi might be causing his forgetfulness, lack of concentration, and hand shaking.
(ii) How his body coordinated the jerking movement to avoid a worse fall after stumbling.
(b) Suggest solutions to help Musa overcome the challenges associated with his drinking habit.

ELEMENT OF CONSTRUCT FIVE

Appreciates how characteristics are inherited in living organisms and passed to generations through Reproduction and manifested as the organism grows

GENETICS, REPRODUCTION, GROWTH AND DEVELOPMENT ITEMS

ITEM 1
In Gulu, farmer Okello and his wife, Rose, welcomed their first child, a boy who struggles to see colours, especially red and green, causing him to mix up objects at home. Colour is a sex-linked trait. Okello, who practices artificial selection to breed drought-resistant sorghum, also has HIV, which tires him out quickly while farming. The family faces gossip from neighbours who think the child's condition is a curse, adding to their stress.
Task:
(a) (i) Using genetic crossings, describe how colour blindness was transmitted to the boy.
(ii) describe how artificial selection leads to drought resist sorghum.
(b) Suggest ways Okello and Rose can manage their son's condition and Okello's health challenges.

ITEM 2
In Mityana, farmer John and his wife, Sarah, have a daughter who was born with sickle cell anemia, causing her frequent pain and weakness. John, who selects fast-growing chickens, struggles with erectile dysfunction, possibly due to stress, affecting their marriage. The community spreads rumors that the daughter's illness is linked to John's farming, causing social stigma.
Task:
(a) Explain how:
(i) Daughter inherited sickle cell anemia
(ii) erectile dysfunction can affect his reproductive potential.
(b) Suggest ways John and Sarah can manage their daughter's condition and their marital challenges.

ITEM 3
Lydia and Tom got married in Mbale. Their first son was born with signs of sickle cell anaemia. Later, Lydia was diagnosed with gonorrhoea, which she may have passed on unknowingly to the baby during childbirth. When she got pregnant again, doctors explained that there were risks related to both STDs and inheritance.

Tom was confused because he thought only women pass on such conditions.
TASK
(a) (i) Explain how their son inherited sickle cell anaemia.
(ii) Explain the effects of gonorrhoea on the baby and how it can be prevented in future pregnancies.
(c) What advice would you give to the couple about the role of both parents in inheritance and disease transmission?

ITEM 4
In Gulu, a teenage girl named Betty gave birth to a baby with white hair, pale skin, and red eyes. The child was diagnosed with albinism. Betty, still in school, faced rejection from her parents and mockery from fellow students. Some community members said she was cursed. The health worker explained it was a genetic condition and not her fault. Betty later showed signs of depression and dropped out of school.
TASK
(a) (i) Use genetic symbols to explain how the child inherited albinism.
(ii) Explain the role of mutation in such conditions.
(b)(i) Suggest how the family and community can support Betty and her baby.
(ii) Explain why adolescent girls face more risks during early pregnancy and how such situations can be prevented.

ITEM 5
Agnes and John, a couple living in Kampala, have been married for 6 years without having a child. Medical tests showed Agnes had hormonal imbalance while John had a low sperm count. They are both living with HIV and use birth control to avoid unplanned pregnancy. They have been told they can try assisted reproduction methods or adopt a child.
TASK
(a) (i) Describe how hormonal imbalance is related to infertility.
(ii) How does HIV affect reproduction and general health?
(b) Propose strategies to solve the above challenges.

ITEM 6
Joseph and Rose are farmers in Fort Portal. Their son, Paul, was born with colour blindness and often confuses red and green. His teachers thought he was lazy, but a test showed it was a genetic problem. Meanwhile, on their farm, Joseph breeds chickens with special colour patterns and good egg-laying abilities.
TASK
(a) (i) Explain how Paul inherited colour blindness.
(ii) Describe why sex-linked traits like colour blindness affect boys more than girls.
(b) Propose strategies to solve the above challenges.

ITEM 7
Anna and her husband David have a young son who bleeds for a long time even after a small injury. He was diagnosed with haemophilia. When Anna missed her periods for several months, she feared she was pregnant again. But tests showed she had a menstrual disorder caused by hormonal changes. The doctor explained about sex determination and the importance of proper family planning.
TASK
(a) (i) Use genetic symbols to show how their son inherited haemophilia.
(ii) Explain why haemophilia is more common in males.
(b) What advice would you give Anna to manage her menstrual irregularities and family planning?

ITEM 8
Shamim is a Senior Four student in Lira who got pregnant after her boyfriend convinced her not to use protection. At the hospital, she was found to be a sickle cell carrier and infected with candida and HIV. She was confused and scared about the pregnancy, and her family was disappointed.
TASK
(a) (i) Use genetic symbols to show how Shamim's baby could inherit sickle cell anaemia.
(ii) Explain how candida and HIV could affect the baby before or after birth.

(b) Suggest ways schools and families can help reduce teenage pregnancies and STDs.

ITEM 9

Aisha and Mark were surprised when their third child was born with albinism, even though no one in their family looked like that. Their older daughter, aged 14, has started puberty but is worried because her menstrual periods are irregular. The mother thinks something is wrong with her.

TASK

(a) (i) Explain how their baby inherited albinism using genetic symbols.

(ii) Explain two normal changes that happen during puberty.

(c) Suggest possible causes of menstrual irregularities in teenage girls and how to manage them.

ITEM 10

Peter and Susan have three children two boys and a girl. One of the boys has haemophilia, while the other children are healthy. Susan was shocked because no one in her family had this condition. Their first-born daughter is now going through puberty and experiencing mood swings. The family also noticed that all three children are different in body size and behaviour.

TASK

(a) (i) Explain how haemophilia was inherited using genetic symbols.

(ii) Describe how sex is determined during reproduction.

(b) how can the family be helped?

ITEM 11

Doreen and Andrew live in Masaka. Their first child was diagnosed with sickle cell anaemia. When Doreen got pregnant again, the couple was worried the new baby might also have the same condition. A community health worker visited them and explained how such conditions are inherited and how to plan for healthy babies. The couple also learned about safe sex and how to protect themselves from sexually transmitted infections.

TASK

(a) (i) Use genetic symbols to show how their child inherited sickle cell anaemia.

(ii) Describe how sex is determined during fertilization.

(b) Suggest ways Doreen and Andrew can protect themselves from STDs.

ITEM 12

In Ntungamo, Grace gave birth to a baby with white skin and pink eyes. Her neighbours began to spread rumours, saying the baby was cursed. But the doctor explained that the baby had albinism, a genetic condition. Grace had also experienced a difficult birth, and the midwife taught her how to take care of the baby's skin and eyes.

TASK

(a) (i) Explain how the baby inherited albinism.

(ii) Describe how mutations can lead to such genetic conditions.

(b) (i)Suggest ways Grace can take care of her baby's health.

(ii) What can community members do to stop myths and support children with special conditions?

ITEM 13

In Kisumu village, Achieng and her husband Otieno were happy when they had their first child. However, the child was diagnosed with sickle cell disease after frequent hospital visits due to pain and fatigue. The couple later learned that both are carriers of the sickle cell gene but show no symptoms themselves. Their relatives advised them on the risks of having more children with the disease.

Task:

(a) (i)Explain how their child inherited sickle cell disease using Mendelian inheritance and genetic symbols.

(ii) Describe the importance of sex determination in humans and how sex-linked disorders differ from sickle cell disease.

(c) Suggest how Achieng and Otieno can manage the child's condition and plan for future children responsibly.

ITEM 14
In Fort Portal, a young couple, Sarah and Michael, have been trying to have children for three years without success. Doctors diagnosed Sarah with hormonal imbalance affecting ovulation, and Michael was found to have erectile dysfunction. The couple also tested positive for Gonorrhoea, a sexually transmitted disease, complicating their fertility.
Task:
(a)(i) Describe how the conditions above causes of infertility in Sarah and Michael.
(ii)Explain the processes of fertilization and embryo development in humans.
(c) Suggest options that can help the couple improve their chances of conception.

ITEM 15
In Mukono, twins Peter and Paul were born to parents who both have normal vision. However, Paul was diagnosed with red-green colour blindness, while Peter has normal colour vision. Their parents want to understand how this happened and how it relates to sex linkage.
Task:
(a)(i)Explain the genetic basis of colour blindness and how it is inherited.
(ii) Describe the differences between mitosis and meiosis and their role in human reproduction and inheritance.
(c) Advise the parents on how they can support Paul's development despite his colour blindness.

ITEM 16
In Kampala, 16-year-old Lydia is experiencing irregular menstrual cycles and early signs of puberty. She recently learned about teenage pregnancy risks and wants to understand how to protect herself. Her school counselor also teaches about the importance of contraception and preventing STDs like HIV/AIDS.
Task:
(a) (i)Describe the biological changes during puberty and causes of menstrual irregularities.
(ii) Explain the methods of birth control available and their effects on the female reproductive system.
(c) Discuss the importance of preventing STDs, including HIV/AIDS, and ways Lydia can protect herself.

ITEM 17
In Lira, a farmer called Joseph uses artificial selection to breed cattle that produce more milk. However, some of his cattle developed mutations leading to health problems. Joseph wants to understand how mutations occur and how to avoid breeding unhealthy animals.
Task:
(a) (i)Explain the concepts of variation and artificial selection and how they apply to animal husbandry.
(ii)Describe mutations, including good, bad, and neutral types, and how they affect organisms.
(c) Suggest ways Joseph can manage his breeding program to avoid negative effects of mutations.

ITEM 18
In Kasese, a couple, Sarah and David, have a daughter with haemophilia. They want to understand how this disease is inherited and why only their daughter has it. Sarah is worried about the risks for future children. The family also wants to know how to take care of their daughter to avoid complications.
Task:
(a) Explain how haemophilia is inherited, focusing on sex linkage and the role of carriers.
(b) Suggest ways Sarah and David can manage their daughter's condition and prevent bleeding complications.

ITEM 19
In Kabale, twins Rose and Ruth were born. Rose has albinism, while Ruth has normal skin pigmentation. Their parents are confused about the condition and want to know how it occurred. They also want to learn about the care needed for Rose.
Task:
(a) Explain how albinism is inherited using Mendelian genetics and why only one twin has it.
(c) Suggest ways the family can protect Rose from skin damage and social stigma.

ITEM 20

In Lira, a young couple tested positive for HIV. They have two healthy children but worry about the risk of transmitting the virus if they have more children. They want to know about reproduction, HIV transmission, and how to protect their family.
Task:
(a)(i) Explain how HIV affects the human body and its transmission during reproduction.
(ii)Describe the processes of fertilization, embryo development, and birth.
(b) Suggest measures the couple can take to prevent HIV transmission and have healthy children.

SECTION B

ELEMENT OF CONSTRUCT ONE

Appreciates diversity of living things and sustainability of natural resources.

ECOLOGY AND HUMAN ACTIVITIES ON THE ECOSYSTEM

ITEM 1
In Arua, farmer Akello cleared a wetland to grow rice, using pesticides to control insects and fertilizers to boost yields. She also removed all native grasses to expand her farm. After some time, she noticed fewer bees visiting her rice fields, reduced soil fertility, and frequent flooding during rains. The community complained that their water sources were drying up, blaming Akello's farming.
Task:
(a) Explain how the following affected the environment:
(i) Clearing the wetland
(ii) Using pesticides and fertilizers
(iii) Removing native grasses
(b) Suggest why Akello should conserve the wetland environment.

ITEM 2
In Mbale, a community on a forested hill began cutting trees for timber and grazing goats, which ate young plants. They also used fire to clear land for vegetable gardens. Over time, the area experienced soil erosion, fewer birds for pollination, and hotter temperatures. Villagers noticed reduced crop yields and blamed the hill's degradation, causing tension.
Task:
(a) Explain how the following caused environmental challenges:
(i) Tree cutting and goat grazing
(ii) Fire clearing
(iii) Reduced bird populations
(b) Suggest why the community should conserve the forested hill.

ITEM 3
In Gulu, farmer Okumu drained a swamp to plant beans, using chemicals to kill weeds and pests. He also introduced fast-growing bean varieties to increase profits. After some time, he observed fewer frogs and fish in nearby streams, poor bean growth due to hard soil, and water shortages in his village. Neighbors criticized his farming for harming their water supply.
Task:
(a) Explain how the following affected the environment:
(i) Swamp drainage
(ii) Chemical use
(iii) Fast-growing bean varieties
(b) Suggest why Okumu should conserve the swamp environment.

ITEM 4
In Kabale, a cooperative group cleared a grassland to grow potatoes, using tractors for ploughing and pesticides to control beetles. They also burned crop residues after harvest. Over time, they noticed fewer butterflies for pollination, degraded soil, and increased dust storms. The community worried about reduced harvests and health issues from dust, blaming the cooperative.

Task:
(a) Explain how the following caused environmental challenges:
(i) Grassland clearing and tractor use
(ii) Pesticide application
(iii) Burning crop residues
(b) Suggest why the cooperative should conserve the grassland environment.

ITEM 5
In Jinja, farmer Auma removed a forest patch to expand her sorghum farm, using fertilizers to improve yields and fencing to keep out wild animals. She also planted a single sorghum variety for better sales. After some time, she noticed fewer birds and insects, poor soil quality, and hotter weather. Villagers complained about reduced water levels in nearby wells, causing disputes.
Task:
(a) Explain how the following affected the environment:
(i) Forest clearing and fencing
(ii) Fertilizer use
(iii) Single sorghum variety
(b) Suggest why Auma should conserve the forest environment.

ITEM 6
In Lira, farmer Auma started a large millet farm by clearing a savanna area, using herbicides to control weeds and planting a single fast-growing millet variety. She also diverted a small stream to irrigate her fields. After some time, she noticed fewer birds visiting her farm, hardened soil, and reduced water in nearby wells. Villagers blamed her for water shortages, causing community disputes.
Task:
(a) Explain how the following affected the environment:
(i) Savanna clearing and herbicide use
(ii) Single millet variety
(iii) Stream diversion
(b) Suggest why Auma should conserve the savanna environment.

ITEM 7
In Mityana, a community group cleared a woodland area to grow tomatoes, using chemical fertilizers and burning crop residues after harvest. They also introduced a new tomato variety for better yields. Over time, they observed fewer bees for pollination, poorer soil quality, and hotter temperatures in the area. Neighbors complained about reduced crop yields, blaming the group's practices.
Task:
(a) Explain how the following caused environmental challenges:
(i) Woodland clearing and burning residues
(ii) Chemical fertilizer use
(iii) New tomato variety
(b) Suggest why the community should conserve the woodland environment.

ITEM 8
In Kabarole, farmer Okello expanded his cassava farm by removing a grassy patch and using pesticides to control caterpillars. He also planted a single cassava variety to increase profits. After some time, he noticed fewer butterflies, compacted soil, and increased erosion during rains. The community worried about declining harvests and blamed Okello's farming for environmental damage.
Task:
(a) Explain how the following affected the environment:
(i) Grassy patch removal
(ii) Pesticide use
(iii) Single cassava variety
(b) Suggest why Okello should conserve the grassy environment.

ITEM 9
In Soroti, a cooperative began fish farming in a lake, using chemicals to control algae and overfishing to meet market demand. They also introduced a fast-growing fish species. After some time, they observed fewer water plants, declining fish populations, and polluted water affecting nearby farms. Villagers complained about reduced water quality, causing tension.

Task:
(a) Explain how the following caused environmental challenges:
(i) Chemical use for algae control
(ii) Overfishing
(iii) Fast-growing fish species
(b) Suggest why the cooperative should conserve the lake environment.

ITEM 10
In Masaka, farmer Nankya cleared a bushy area to plant groundnuts, using fertilizers to boost growth and fencing to keep out grazing animals. She also burned leftover plants after harvest. Over time, she noticed fewer insects for pollination, degraded soil, and hotter weather. The community blamed her for reduced water in streams, leading to disputes.
Task:
(a) Explain how the following affected the environment:
(i) Bush clearing and burning
(ii) Fertilizer use
(iii) Fencing to exclude animals
(b) Suggest why Nankya should conserve the bushy environment.

ITEM 11
In Jinja, a tourism company in a forest reserve introduced exotic bird species to attract visitors, used pesticides to control insects, and cleared undergrowth for trails. After some time, they observed fewer native birds, reduced tree growth, and soil erosion. Local farmers complained about lower crop pollination, blaming the company's actions.
Task:
(a) Explain how the following affected the environment:
(i) Exotic bird introduction
(ii) Pesticide use
(iii) Undergrowth clearing
(b) Suggest why the company should conserve the forest environment.

ITEM 12
In Masaka, Mrs. Namukasa planted beans on the same plot year after year without crop rotation. She used chemical pesticides to kill beetles but noticed the soil turned hard and dusty. Nearby, her fishpond developed green algae, and fish died suddenly during dry seasons.
Task:
(a) Explain how her farming practices caused:
(i) Soil exhaustion and algae growth.
(ii) Death of fish in the pond.
(b) Suggest two sustainable practices to restore soil fertility and pond health.

ITEM 13
A factory near Lake Victoria dumped untreated waste into a river. Fishermen noticed fewer Nile perch, and water hyacinth spread rapidly. Villagers using the river for bathing developed itchy rashes, while cows drinking the water produced less milk.
Task:
(a) Explain:
(i) How factory waste disrupted the aquatic food web.
(ii) Links between water pollution and health issues.
(b) Why conserving Lake Victoria is vital for communities.

ITEM 14
In Kasese, farmers cleared a forest to plant maize on a hillside. Heavy rains washed fertile soil into streams, clogging them with silt. Later, armyworms destroyed crops, and birds that once ate the worms disappeared.
Task:
(a) Relate:
(i) Deforestation to soil erosion and armyworm outbreaks.
(ii) Loss of birds to predator-prey imbalances.
(b) Suggest two ways to farm slopes sustainably.

ITEM 15
In Gulu, Mr. Okello burned grasslands yearly for fresh pasture. Ash made soil fertile briefly, but later, grasses grew poorly. Bees vanished, affecting mango trees' flowering. Winds blew loose soil onto roads, blocking drains.
Task:

(a) Explain:
(i) Why burning caused short-term fertility but long-term damage.
(ii) How bee loss affected mango production.
(b) Propose a soil-conserving alternative to burning.

ITEM 16
In Hoima, a wetland was drained for rice farming. Mosquitoes multiplied, spreading malaria. Soil became acidic, killing earthworms. Herons that fed on wetland frogs starved, while floods worsened in nearby villages.
Task:
(a) Explain:
(i) How draining increased mosquitoes and reduced soil quality.
(ii) The heron-frog food chain disruption.
(b) Argue why wetlands should be conserved.

ITEM 17
In Lira, farmer Auma started a large millet farm by clearing a savanna area, using herbicides to control weeds and planting a single fast-growing millet variety. She also diverted a small stream to irrigate her fields. After some time, she noticed fewer birds visiting her farm, hardened soil, and reduced water in nearby wells. Villagers blamed her for water shortages, causing community disputes.
Task:
(a) Explain how the following affected the environment:
(i) Savanna clearing and herbicide use
(ii) Single millet variety
(iii) Stream diversion
(b) Suggest why Auma should conserve the savanna environment.

ITEM 18
In Mityana, a community group cleared a woodland area to grow tomatoes, using chemical fertilizers and burning crop residues after harvest. They also introduced a new tomato variety for better yields. Over time, they observed fewer bees for pollination, poorer soil quality, and hotter temperatures in the area. Neighbors complained about reduced crop yields, blaming the group's practices.
Task:
(a) Explain how the following caused environmental challenges:
(i) Woodland clearing and burning residues
(ii) Chemical fertilizer use
(iii) New tomato variety
(b) Suggest why the community should conserve the woodland environment.

ITEM 19
In Kabarole, farmer Okello expanded his cassava farm by removing a grassy patch and using pesticides to control caterpillars. He also planted a single cassava variety to increase profits. After some time, he noticed fewer butterflies, compacted soil, and increased erosion during rains. The community worried about declining harvests and blamed Okello's farming for environmental damage.
Task:
(a) Explain how the following affected the environment:
(i) Grassy patch removal
(ii) Pesticide use
(iii) Single cassava variety
(b) Suggest why Okello should conserve the grassy environment.

ITEM 20
In Soroti, a cooperative began fish farming in a lake, using chemicals to control algae and overfishing to meet market demand. They also introduced a fast-growing fish species. After some time, they observed fewer water plants, declining fish populations, and polluted water affecting nearby farms. Villagers complained about reduced water quality, causing tension.
Task:
(a) Explain how the following caused environmental challenges:
(i) Chemical use for algae control
(ii) Overfishing
(iii) Fast-growing fish species
(b) Suggest why the cooperative should conserve the lake environment.

ITEM 21
In Masaka, farmer Nankya cleared a bushy area to plant groundnuts, using fertilizers to boost growth and fencing to keep out grazing animals. She also burned leftover plants after harvest. Over time, she noticed fewer insects for pollination, degraded soil, and hotter weather. The community blamed her for reduced water in streams, leading to disputes.
Task:
(a) Explain how the following affected the environment:
(i) Bush clearing and burning
(ii) Fertilizer use
(iii) Fencing to exclude animals
(b) Suggest why Nankya should conserve the bushy environment.

ITEM 22
In Jinja, a tourism company in a forest reserve introduced exotic bird species to attract visitors, used pesticides to control insects, and cleared undergrowth for trails. After some time, they observed fewer native birds, reduced tree growth, and soil erosion. Local farmers complained about lower crop pollination, blaming the company's actions.
Task:
(a) Explain how the following affected the environment:
(i) Exotic bird introduction
(ii) Pesticide use
(iii) Undergrowth clearing
(b) Suggest why the company should conserve the forest environment.

ITEM 23
In Arua, farmer Rose started a large sorghum farm by clearing a thicket and using pesticides to control locusts. She also plowed deeply with a tractor to prepare the land. After some time, she noticed fewer birds visiting her sorghum flowers, eroded soil during rains, and smoky air from nearby farmers' burning. The community complained about poor water quality in local streams, blaming Rose's farming practices.
Task:
(a) Explain how the following caused environmental challenges:
(i) Thicket clearing and pesticide use
(ii) Deep plowing with a tractor
(b) Suggest why Rose should conserve the thicket environment.

ITEM 24
In Kabale, a village cooperative began growing cabbages on a hillside, removing native shrubs and using chemical fertilizers to increase yields. They also drove away small mammals to protect their crops. Over time, they observed fewer bees pollinating their cabbages, soil washing away during rains, and hotter weather. Villagers worried about declining harvests and blamed the cooperative, causing tension.
Task:
(a) Explain how the following caused environmental challenges:
(i) Shrub removal and fertilizer use
(ii) Driving away small mammals
(b) Suggest why the cooperative should conserve the hillside environment.

ITEM 25
In Mityana, farmer Okumu started a poultry farm near a small forest, using antibiotics to prevent chicken diseases and clearing trees to build more coops. He also dumped chicken waste into a nearby stream. After some time, he noticed fewer frogs in the stream, polluted water affecting nearby gardens, and reduced wild animal sightings. The community complained about health issues, blaming Okumu's farm.
Task:
(a) Explain how the following caused environmental challenges:
(i) Antibiotic use and tree clearing
(ii) Dumping chicken waste
(b) Suggest why Okumu should conserve the forest and stream environment.

ITEM 26
In Soroti, a community group began growing sunflowers on a plain, using herbicides to control weeds and burning leftover stalks after harvest. They also introduced a single sunflower variety for better sales. Over time, they noticed fewer butterflies visiting their flowers, degraded soil,

and dustier air. Neighbors complained about lower crop yields, blaming the group's practices.
Task:
(a) Explain how the following caused environmental challenges:
(i) Herbicide use and burning stalks
(ii) Single sunflower variety
(b) Suggest why the community should conserve the plain environment.

ELEMENT OF CONSTRUCT THREE

Understands how mammals obtain and use nutrients to meet their energy requirements during which raw Materials and products are carried to and from various organs.

HUMAN BIOLOGY ITEMS

ITEM 1
In Arua, 45-year-old farmer Okot suffers from nutrient deficiency, chronic bronchitis, and early kidney failure, causing him to feel weak, cough frequently, and pass cloudy urine. His nutrient deficiency leads to tiredness, pale skin, and dizziness. His bronchitis causes persistent coughs, shortness of breath, and chest pains. His kidney failure results in cloudy urine, swollen legs, and fatigue. His family worries about his declining farm work, and neighbors think his health issues are due to overwork, causing Okot stress.
Task:
(a) Explain how the following health challenges caused Okot's health conditions:
(i) Nutrient deficiency
(ii) Chronic bronchitis
(iii) Early kidney failure
(b) Suggest ways Okot can manage his health challenges to continue farming.

ITEM 2
In Mbale, 17-year-old student Sarah suffers from anemia, obesity, and a respiratory infection, leading to weakness, weight gain, and breathing difficulties. Her anemia causes pale skin, tiredness, and dizziness. Her obesity results in joint pains, excessive sweating, and slow movements. Her respiratory infection leads to chronic coughs, shortness of breath, and chest tightness. Her teachers notice her poor school performance, and her parents worry she might fail, causing Sarah to feel isolated.
Task:
(a) Explain how the following health challenges caused Sarah's symptoms:
(i) Anaemia
(ii) Obesity
(iii) Respiratory infection
(b) Suggest ways Sarah's parents can help her manage her health to improve her school performance.

ITEM 3
Mrs. Nansubuga, a 45-year-old trader in Kampala, eats fast foods daily such as chips, fried chicken, and soda. She rarely exercises. Over time, she gained a lot of weight, developed chest pain, and often feels tired even after small movements. Doctors found that she was obese, had high blood pressure, and her blood vessels were narrowing. Her blood tests showed high cholesterol levels.
Task
(a) (i) Explain how Mrs. Nansubuga's diet and lifestyle caused her health problems.
(ii) Describe the process of food digestion and how excess lipids affect the body.
(b) Suggest lifestyle changes she can make to improve her health.

ITEM 4
Ali is a 9-year-old boy living in a rural village in Kiboga. He eats mainly cassava and porridge every day. He is often weak, falls sick frequently, and has delayed growth compared to his age mates. At the health centre, he was found to be underweight, had low immunity, and lacked red blood cells.

Task
(a) Explain how lifestyle is contributes to his health condition.
(c) Suggest a balanced diet that Ali's caregivers can provide using locally available foods.

ITEM 5
Mr. Owino, a retired head teacher in Tororo, began experiencing body swelling, back pain, and difficulty urinating. He also complained of fatigue and loss of appetite. At the hospital, doctors found that his kidneys were failing, and his urine contained proteins. He was advised to reduce salt intake and drink more water.
Task
(a) (i) Describe the structure of the kidney and how urine is formed.
(ii) Explain how proteinuria shows kidney failure.
(b) Suggest ways Mr. Owino can manage his condition to reduce further damage.

ITEM 6
In Jinja, 50-year-old market trader Paul has diabetes, a chronic cough, and lymph fluid buildup, causing high blood sugar, coughing spells, and swollen limbs. His diabetes leads to frequent thirst, weight loss, and blurred vision. His chronic cough causes chest pains, hoarse voice, and shortness of breath. His lymph fluid buildup results in swollen legs, heavy limbs, and difficulty walking. His customers avoid his stall due to his frequent illnesses, and his family worries about his business, causing Paul stress.
Task:
(a) Explain how the following health challenges caused Paul's symptoms:
(i) Diabetes
(ii) Chronic cough
(iii) Lymph fluid buildup
(b) Suggest ways Paul can manage his health to maintain his business.

ITEM 7
In Mityana, 30-year-old teacher Grace suffers from protein deficiency, bronchitis, and early elephantiasis, leading to weakness, coughing, and swollen ankles. Her protein deficiency causes muscle wasting, tiredness, and slow healing of wounds. Her bronchitis results in persistent coughs, shortness of breath, and chest pains. Her early elephantiasis leads to swollen ankles, leg heaviness, and skin thickening. Her students notice her frequent absences, and her colleagues worry she might lose her job, causing Grace to feel anxious.
Task:
(a) Explain how the following health challenges caused Grace's symptoms:
(i) Protein deficiency
(ii) Bronchitis
(iii) Early elephantiasis
(b) Suggest ways Grace can manage her health to continue teaching.

ITEM 8
Kevin, a 12-year-old boy from Karamoja, has been eating mainly millet porridge with no vegetables or fruits. Over time, he developed swollen gums, poor wound healing, and weak bones. He also falls sick frequently. His teacher noticed he is shorter than most of his age mates.
Task
(a)(i) Explain how poor digestion and absorption can worsen his condition.
(ii) How does a strong immune system help protect Kevin from frequent illness?
(b) Suggest a diet plan using local foods to help Kevin recover and grow well.

ITEM 9
Madam Harriet, a headmistress in Masindi, drives to work daily, spends long hours at her desk, and eats a lot of fried foods and sugary drinks. She recently started feeling breathless after short walks and has swollen ankles. Doctors told her she is obese and has high blood pressure.
Task
(a) (i) Explain how Madam Harriet's lifestyle led to obesity and poor circulation.
(ii) Describe how oxygen and food are transported through blood.
(b) Suggest lifestyle changes Madam Harriet can make to regain good health.

ITEM 10
James, a cattle keeper from Rakai, developed constant fatigue, dry mouth, and dizziness. He drinks very little water, eats mostly meat with no vegetables, and avoids fruits. At the health centre, doctors said his blood pressure was low, and his body was dehydrated.
Task
(a) (i) Explain how lack of water affects blood composition and transport.
(ii) Describe how proper hydration and diet support immunity.
(b) Suggest practical ways James can improve his diet and hydration using available resources.

ITEM 11
In Kabale, 35-year-old farmer Rose suffers from vitamin deficiency, kidney dysfunction, and a respiratory infection, causing tiredness, urinary issues, and breathing problems. Her vitamin deficiency leads to weak bones, fatigue, and poor vision. Her kidney dysfunction causes dark urine, swollen feet, and back pain. Her respiratory infection results in chronic coughs, shortness of breath, and chest tightness. Her family worries about her reduced farm work, and neighbors think her illness is due to poor diet, causing Rose embarrassment.
Task:
(a) Explain how the following health challenges caused Rose's symptoms:
(i) Vitamin deficiency
(ii) Kidney dysfunction
(iii) Respiratory infection
(b) Suggest ways Rose can manage her health to continue farming.

ITEM 12
In Lira, 38-year-old farmer Akello suffers from iron deficiency, emphysema, and early kidney dysfunction, leading to weakness, breathing issues, and urinary problems. His iron deficiency causes pale skin, fatigue, and dizziness. His emphysema results in persistent coughs, shortness of breath, and chest pain. His kidney dysfunction leads to frequent urination, swollen hands, and lower back pain. His family worries about his reduced farm work, and neighbours think his illness is due to poor diet, causing Akello embarrassment.
Task:
(a) Explain how the following health challenges caused Akello's symptoms:
(i) Iron deficiency
(ii) Emphysema
(iii) Early kidney dysfunction
(b) Suggest ways Akello can manage his health challenges to continue farming.

ITEM 13
In Soroti, 20-year-old student Mary suffers from vitamin A deficiency, chronic throat infection, and obesity, leading to vision problems, throat issues, and mobility challenges. Her vitamin A deficiency causes night blindness, dry eyes, and frequent infections. Her throat infection results in sore throat, difficulty swallowing, and hoarse voice. Her obesity leads to knee pain, excessive sweating, and tiredness. Her teachers notice her poor class participation, and her parents worry about her health, causing Mary stress.
Task:
(a) Explain how the following health challenges caused Mary's symptoms:
(i) Vitamin A deficiency
(ii) Chronic throat infection
(iii) Obesity
(b) Suggest ways Mary's parents can help her manage her health to improve her school performance.

ITEM 14
In Kabale, 42-year-old trader John suffers from protein deficiency, lung infection, and lymph fluid retention, leading to muscle weakness, breathing issues, and swelling. His protein deficiency causes muscle cramps, slow wound healing, and fatigue. His lung infection results in chronic coughs, shortness of breath, and fever. His lymph fluid retention leads to swollen feet, heavy legs, and skin tightness. His customers notice his reduced energy, and his family fears he might lose his business, causing John anxiety.
Task:
(a) Explain how the following health challenges caused John's symptoms:
(i) Protein deficiency

(ii) Lung infection
(iii) Lymph fluid retention
(b) Suggest ways John can manage his health to maintain his business.

ITEM 15
In Mbarara, 28-year-old teacher Rose suffers from vitamin D deficiency, chronic bronchitis, and early kidney issues, leading to bone pain, breathing difficulties, and urinary problems. Her vitamin D deficiency causes weak bones, joint stiffness, and tiredness. Her bronchitis results in persistent coughs, chest tightness, and shortness of breath. Her kidney issues lead to dark urine, swollen ankles, and back pain. Her students notice her frequent absences, and her colleagues worry she might lose her job, causing Rose distress.
Task:
(a) Explain how the following health challenges caused Rose's symptoms:
(i) Vitamin D deficiency
(ii) Chronic bronchitis
(iii) Early kidney issues
(b) Suggest ways Rose can manage her health to continue teaching.

ITEM 16
In Jinja, 35-year-old fisherman Peter suffers from carbohydrate deficiency, throat cancer, and lymph fluid buildup, leading to weakness, throat problems, and swelling. His carbohydrate deficiency causes low energy, dizziness, and weight loss. His throat cancer results in sore throat, difficulty swallowing, and hoarse voice. His lymph fluid buildup leads to swollen legs, heavy limbs, and skin thickening. His family worries about his reduced fishing, and neighbors think his illness is due to lake water, causing Peter shame.
Task:
(a) Explain how the following health challenges caused Peter's symptoms:
(i) Carbohydrate deficiency
(ii) Throat cancer
(iii) Lymph fluid buildup
(b) Suggest ways Peter can manage his health to continue fishing.

ITEM 17
In Gulu, 50-year-old shopkeeper Anna suffers from vitamin C deficiency, lung infection, and obesity, leading to skin issues, breathing problems, and mobility challenges. Her vitamin C deficiency causes bleeding gums, slow wound healing, and frequent infections. Her lung infection results in chronic coughs, shortness of breath, and chest pain. Her obesity leads to joint pain, excessive sweating, and fatigue. Her customers notice her frequent breaks, and her family fears she might close her shop, causing Anna worry.
Task:
(a) Explain how the following health challenges caused Anna's symptoms:
(i) Vitamin C deficiency
(ii) Lung infection
(iii) Obesity
(b) Suggest ways Anna can manage her health to maintain her shop.

ITEM 18
In Fort Portal, 42-year-old farmer David suffers from calcium deficiency, chronic lung infection, and weakened immunity, leading to bone issues, breathing problems, and frequent illnesses. His calcium deficiency causes brittle nails, weak bones, and muscle cramps. His lung infection results in persistent coughs, shortness of breath, and chest tightness. His weakened immunity leads to frequent fevers, skin rashes, and slow healing of wounds. His family worries about his reduced farm work, and neighbors think his illness is due to poor farming, causing David stress.
Task:
(a) Explain how the following health challenges caused David's symptoms:
(i) Calcium deficiency
(ii) Chronic lung infection
(iii) Weakened immunity
(b) Suggest ways David can manage his health challenges to continue farming.

ITEM 19
In Masindi, 19-year-old student Jane suffers from vitamin B deficiency, early kidney impairment, and obesity, leading to nerve issues, urinary

problems, and mobility challenges. Her vitamin B deficiency causes tingling hands, fatigue, and mood swings. Her kidney impairment results in painful urination, swollen feet, and lower back pain. Her obesity leads to knee pain, excessive sweating, and tiredness. Her teachers notice her poor concentration, and her parents worry she might fail exams, causing Jane anxiety.
Task:
(a) Explain how the following health challenges caused Jane's symptoms:
(i) Vitamin B deficiency
(ii) Early kidney impairment
(iii) Obesity
(b) Suggest ways Jane's parents can help her manage her health to improve her school performance.

ITEM 20
In Mbarara, 48-year-old shopkeeper Paul suffers from folate deficiency, chronic respiratory infection, and lymph fluid retention, leading to weakness, breathing issues, and swelling. His folate deficiency causes pale skin, tiredness, and mouth sores. His respiratory infection results in chronic coughs, shortness of breath, and chest pain. His lymph fluid retention leads to swollen legs, heavy limbs, and skin tightness. His customers notice his frequent breaks, and his family fears he might close his shop, causing Paul worry.
Task:
(a) Explain how the following health challenges caused Paul's symptoms:
(i) Folate deficiency
(ii) Chronic respiratory infection
(iii) Lymph fluid retention
(b) Suggest ways Paul can manage his health to maintain his shop.

ITEM 21
In Soroti, 30-year-old nurse Grace suffers from protein-energy malnutrition, lung infection, and early kidney dysfunction, leading to weakness, breathing difficulties, and urinary issues. Her protein-energy malnutrition causes muscle wasting, fatigue, and slow wound healing. Her lung infection results in persistent coughs, chest tightness, and fever. Her kidney dysfunction leads to dark urine, swollen ankles, and back pain. Her colleagues notice her frequent absences, and her family worries about her job, causing Grace distress.
Task:
(a) Explain how the following health challenges caused Grace's symptoms:
(i) Protein-energy malnutrition
(ii) Lung infection
(iii) Early kidney dysfunction
(b) Suggest ways Grace can manage her health to continue nursing.

ITEM 22
In Jinja, 35-year-old fisherman Okumu suffers from vitamin C deficiency, chronic bronchitis, and obesity, leading to skin issues, breathing problems, and mobility challenges. His vitamin C deficiency causes bleeding gums, slow healing of cuts, and frequent infections. His chronic bronchitis results in persistent coughs, shortness of breath, and chest pain. His obesity leads to joint pain, excessive sweating, and tiredness. His family worries about his reduced fishing, and neighbors think his illness is due to lake work, causing Okumu embarrassment.
Task:
(a) Explain how the following health challenges caused Okumu's symptoms:
(i) Vitamin C deficiency
(ii) Chronic bronchitis
(iii) Obesity
(b) Suggest ways Okumu can manage his health to continue fishing.

ITEM 23
Nakato, a secondary school student in Kampala, has been experiencing stunted growth, persistent fatigue, and frequent nosebleeds. Her diet consists mainly of cassava and posho (maize flour) with little variety. She lives in a water-scarce area where clean drinking water is limited, and her family cannot afford mosquito nets despite high malaria risk.
Task:
(a) Explain how her lifestyle causes Nakato's health challenges:
(b) Suggest practical solutions to address her health challenges

ITEM 24
Mr. Otieno, a bus driver on the Kampala-Mbarara route, has developed swollen legs, chronic cough, and blurred vision. He smokes 10 cigarettes daily, eats deep-fried street food (like rolex and samosas), and sits for 12 hours without stretching. His medical checkup revealed hypertension and breathing difficulties.
Task:
(a) Link his lifestyle to the his health condition.
(b) Advise Mr. Otieno on changes to manage these conditions.

ITEM 25
Baby Kato, aged 2 in Jinja, suffers from diarrhoea, swollen belly, and pale skin. He drinks untreated water from Lake Victoria, eats only maize porridge, and lives in a damp, mosquito-infested house. The clinic diagnosed severe anaemia and intestinal worms.
Task:
(a) Analyse causes of his symptoms:
(b) Propose a recovery diet using affordable local foods.

ITEM 26
Ms. Adongo, a fishmonger at Kasenyi Landing Site, experiences joint pain, frothy urine, and breathlessness. She works in polluted swampy areas, consumes alcohol daily, and eats mostly salted fish. Medical tests show kidney damage and respiratory issues.
Task:
(a) Relate the causes to her health problems
(b) Recommend lifestyle adjustments to improve her health.

ITEM 27
Juma, a 16-year-old in Gulu, has persistent acne, bone pain, and dizziness. He skips meals for chips and soda, avoids sunlight due to cultural practices, and shares crowded quarters with tuberculosis patients. Blood tests show low vitamin D and calcium.
Task:
(a) Connect the causes to his symptoms:
(b) Outline a management plan combining diet, environment, and hygiene.

ITEM 28
Namagembe, a 30-year-old woman from Iganga, was pregnant with her second child. During her third trimester, she suffered from swollen legs, high blood pressure, and reduced urine output. Her midwife suspected kidney strain and low protein in her urine. She was admitted for close monitoring and advised to drink more water and improve her diet. After delivery, she was placed on treatment to restore proper kidney function.
Task
(a) Describe how poor kidney function affected Namagembe's health during pregnancy.
(b) Suggest how Namagembe can manage and protect her kidneys after delivery.

ITEM 29
Paul, a 28-year-old teacher from Fort Portal, fell sick after returning from a holiday trip. He had a high fever, sore throat, painful joints, and later developed a rash. He was treated at the hospital and told that his immune system had been weakened due to stress and poor feeding. The doctor emphasized the need to improve immunity through diet, rest, and hygiene.
Task
(a) Explain how Paul's lifestyle and condition affected the functioning of his immune system.
(b) Suggest ways in which Paul can strengthen his immunity and avoid frequent infections.

ITEM 30
Mrs. Namusoke, a 45-year-old teacher in Mbale, had been experiencing frequent tiredness, swollen legs, and shortness of breath. She often skipped meals due to her busy schedule and mostly ate fried snacks and soda. One day, she collapsed while walking to school and was rushed to the hospital. The doctors diagnosed her with obesity, early-stage kidney failure, and low immunity. They also found that her blood had low oxygen levels and she had protein in her urine.
Task:
(a) Explain how Mrs. Namusoke's lifestyle led to the health problems she experienced.
(b) Suggest how she can manage her health conditions and improve her body functioning.