





SECTION A: 40 MARKS

- 1. Name the part of a cow that changes the colour when a cow is on heat. **Vulva**
- 2. State any **one** characteristic of self-pollinated flowers.

Filaments are longer than the style. Flowers are small in size. Flowers produce few pollen grains. Pistil and stamen mature at the same time.

- 3. Name any **one** example of a diarrhoeal disease. **Dysentery//typhoid//cholera (reject diarrhoea)**
- 4. Give any one way in which friction is helpful when promoting personal hygiene. It helps when; scrubbing the body//feet using pumice stone//washing clothing and bedding//brushing teeth//combing hair

The diagram below shows a method of making water safe for drinking. Use it to answer questions **5** and **6**.



- 5. Name the substance marked **G**. **Steam/water vapour**
- 6. State any **one** way of preventing water made by the method above from getting contaminated.

Keeping water in a clean jerrycan//pot//keeping water in a clean place.

- Name the human body organ that controls the level of salt.
 Kidney (reject skin)
- Give any one reason why birds are able to fly in air.
 They have flight feathers//their forelimbs are modified to form wings//they have fully developed and strong wings//they have strong pectoral muscles to lift

wings in air.(reject streamlined bodies//rigid skeleton//hollow bones. These are just characteristics of birds)

- State the reason why a bandage is tied slightly above the part bitten by a snake.
 To prevent the fast flow of venom to the heart
- 10. Mention any **one** safety rule on the road.

Always cross the road at the zebra crossing//elders should help children to cross the road//people should wait the vehicle to stop before getting in or out//people should not drink alcohol and drive.



- 11. Give any **one** method used to control soil erosion on land with a steep slope. **Contour ploughing//terracing//strip cropping**
- State any one effect of drug abuse to an individual.
 Leads to loss of sleep//staining of teeth//self neglect//brain and liver damage/ loss of appetite.
- 13. Name any **one** place at home where convection in gases is helpful. **Residential house//kitchen//VIP latrines**
- 14. Mention any **one** method used by farmers when threshing their harvested maize. **Hand threshing//machine threshing**
- 15. Apart from lacking a nucleus, state any **one** other characteristic of red blood cells. **They are disc shaped//have haemoglobin//many in number//thin in size**
- 16. Mention any **one** feature that enables a tapeworm to live in the small intestines of human beings.

Presence of hooks and suckers for attachment//have segments for absorbing digested food//have flat and segmented bodies to fit in the ileum

The diagrams below show symbols used in waste management. Use them to answer questions **17** and **18**.



- 17. Name the waste management practice represented by symbol **R**. **Reduce**
- 18. State any **one** way in which the use of waste management practice represented by symbol **S** is helpful to the environment.

It reduces accumulation of wastes in the environment//it controls pollution.

- 19. State any one use of a periscope to people.
 It is used by submariners to see ships on the surface of the sea.
 It is used by soldiers in trenches to see their enemies.
 It is used to see around corners.
- 20. Identify the disease of teeth that causes swollen and bright red gums. **Gingivitis**
- 21. State any one activity done in the garden using a rake. Collecting dug grass//harrowing//levelling the soil//collecting some soil samples
- 22. Apart from damaging the hive, mention any **one** other way in which pests affect honey bees.
 - They kill bees//they eat honey//they eat grubs//they carry away broods// they lay eggs in the combs.
- 23. State any **one** way in which the skeleton is important to the circulatory system. The skeleton protects the heart//the skeleton helps in the production of blood cells.

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- 24. Give **one** way in which tension affects the pitch of sound. **Tight materials vibrate faster thus produce higher pitched sound**// loose materials vibrate slowly thus produce sound of low pitch.
- 25. State any **one** way in which a helmet protects the head of a person riding a motorcycle.

It shields the head against injuries in case of an accident//it prevents flying insects and dust from falling into the eyes.

26. State the reason why the cotyledons that come out of the ground after germination appear green.

To make food for the seedling//to carry out photosynthesis.

- 27. Name any **one** alcoholic drink prepared through distillation. **Vodka//gin//whisky**
- 28. Mention any one factor to consider when planning a crop rotation design. Presence of legumes//type of crops to grow//resting period for the soil// depth of the plant roots.
- 29. State one reason why farmers heap soil around sweet potato plants. To promote good growth//to protect the tubers from sunshine and pest damage//to encourage the formation of more tubers//to conserve moisture in the soil.
- 30. Name any one example of a physical change in weather. Rainy weather//windy weather//sunny weather//cloudy weather (reject evaporation and condensation)
- Give one excretory function of the human lungs.
 Lungs excrete carbon dioxide from the body//lungs excrete water vapour from the body (reject for breathing)
- 32. Mention any one reason why farmers carry out sheep shearing during dry season. To protect sheep from being affected by coldness.

33. Apart from being healthy, give any one other reason why people eat food. To provide energy to the body//to promote proper body growth//to make the body grow strong//to generate heat in the body. (reject to be happy//it is a habit//to overcome hunger//for hospitality)

34. Give any one way in which a fish benefits from its slippery body. It enables the fish to slip off the predator//for protection against predators.

The diagram below shows a dry cell. Use it to answer questions **35** and **36**.





35. Name the part marked W. Brass cap 36. State the function of the part marked Z on a dry cell. Protects the contents of the dry cell.

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- 37. Name any **one** foodstuff used by mothers when weaning babies. Mashed matoke//mashed rice//porridge//mashed potatoes//mashed posho/ mashed beans
- 38. Write down any **one** activity that a cattle farmer can do to obtain clean milk during milking.

Washing udder and teats with warm water//milking in the clean place// keeping milk in clean containers//washing hands with clean flowing water

- 39. State any **one** way in which houseflies affect the human eyes. They transmit/spread trachoma to the eyes.
- 40. Give any **one** reason why many people do not use solar energy. Solar equipment are expensive to buy and install//solar is a weak source of energy//it does not work well during rainy weather and season//installation of solar equipment needs skilled labour.

SECTION B: 60 MARKS

- 41. (a) Name any **one** dangerous substance found in tobacco smoke. Nicotine//tar//carbon dioxide
 - Give any **two** ways in which tobacco smoking affects the community. (b) It causes air pollution//children may copy smoking habits// it can lead to fire outbreak in an area//leads to loss of community labour
 - State **one** way in which decision making helps to safeguard school children (C) against smoking habits. It enables children to make informed choices about their behaviour and lifestyle//it enables children to avoid situations where drug use is likely to occur.
- 42. (a) Write down any **one** group of crops. Annual crops//perennial crops
 - State any **one** activity done to seedlings during hardening off. (b) Gradual removal of shade//reduced watering
 - Explain how growing legumes help to improve soil fertility in the garden. (C) Root nodules of legumes store nitrogen fixing bacteria (1mark), which fix nitrogen into the soil. (1mark) (02 Marks)

The diagrams below show two screws **A** and **B**. Study and use them to answer the 43. questions that follow.



(a) Identify the screw in which a person would use less effort when fastening parts of a radio.

Screw B

(b) Give any **one** reason for your answer in (a) above.

The threads on screw B are more widely spaced, making it easier to turn and drive in.

- (c) Mention any **two** factors that affect the proper working of the screws marked **A** and **B**.
 Friction//rusting
- 44. (a) Name the vegetative method used to propagate;
 - (i) White yams : **Planting setts**
 - (ii) Sisal: planting suckers
 - (b) State any **two** ways in which a crop farmer can benefit from planting crops vegetatively.

Plants grow and mature faster//the farmer gets high yields//desired varieties are obtained//fruit trees that take long to bear fruits, take short time to bear fruits.

- 45. (a) Give the meaning of the term **food contamination**. **Food contamination is the presence of harmful substaces in food that an make it unsafe for eating. (Reject: Food contamination is the way in which food gets dirty)**
 - (b) State any one effect of eating contaminated food to human health. It causes food contamination//it can lead to death of people//it can lead to vomiting//it causes stomach cramps//it leads to outbreak of foodborne diseases
 - (c) Give any **two** ways in which you can prevent food from getting contaminated before serving it.

Cleaning the place in which food is to be served//clean containers in which to serve food//wash hands before serving food//covering food before serving it

- 46. Tracy wanted to demonstrate how solutes dissolve in solvents. She had the following materials for the experiment; **Spoon**, **Water** and a **Glass**.
 - (a) Name any **one** material Tracy forgot to include on the list of her materials.

Sugar//salt//glucose

- (b) State the importance of the spoon in the experiment. For stirring the mixture to dissolve the solute.
- (c) Describe how Tracy will demonstrate how solutes dissolve in solvents in this experiment. (02 Marks)
 - (i) Pour some water in the glass.
 - (ii) Add a spoonful of a solute in it.
 - (iii) Stir the mixture completely.
 - (iv) The solute dissolves in water forming a solution



47. The diagram below shows the life cycle of a vector. Study and use it to answer the questions that follow.



- (a) Name the growth stages marked **U** and **V**.
 - (i) U: **pupa**
 - (ii) V : adult
- (b) State any one way in which the stage marked W is useful in the environment.
 It helps to reduce the volume of faeces in latrines and septic tanks.
- (c) Give any **one** reason why the lifecycle above is regarded as a complete metamorphosis.

The larva stage is totally/completely different from the adult in structure and function. (Reject: The lifecycle has four stages of growth)

- 48. (a) Name the germ that causes leprosy. **Bacteria**
 - (b) Mention any two signs of leprosy in human beings. Sores with loss of feelings on the skin//pale skin sores that last long// deformed toes and fingers
 - (c) State any one way of controlling leprosy in human beings.
 Isolating infected people//control the breeding of cockroaches// early treatment of the infected people.
- 49. (a) Apart from yeast, give any **one** other example of a fungus. **Mushroom//puffball//toadstool//bracket fungus**
 - (b) State any two ways in which yeast is important to people.
 It is used for baking//it is used for brewing alcohol//it is used to flavour cheese// it is a source of vitamin B1.
 - (c) Give **one** way in which the feeding of yeast is different from that of a moss plant. **Yeast feeds on sugar while a moss plant makes its own food.**
- 50. (a) Name the digestive juice produced in the;
 - (i) Liver : **bile juice**
 - (ii) Pancreas : pancreatic juice
 - Mention any two ways of controlling diseases that affect the digestive system. Drinking boiled water//limit alcohol intake//washings hands before eating food//washing fruits and vegetables before eating them. (Reject: feeding on a balanced diet//doing regular physical exercises) Page 7 of 12

51. The table below shows classes of arthropods. Study and use it to answer the questions that follow.

Μ	Ν	Q
Spider tick mite	bee butterfly	crab lobster crayfish
	moth	

- (a) Name the class of arthropods marked **M**. Arachnids
- (b) Give one way in which the animals in class N support the growth of flowering plants. They pollinate flowers which promotes fertilization.
- (c) State any **one** reason why animals in group **Q** do not belong in the same class of arthropods with those in group **N**.

Animals in group Q breathe through gills while animals in group N breathes through spiracles.

Animals in group Q have many jointed legs while animals in group N have six jointed legs.

Animals in group Q have two main body divisions while animals in group N have three main body divisions.

(d) Identify any **one** animal that belongs to the class of arthropods that was not included in the table above.

Millipede//centipede

52. (a) State any **one** factor that a poultry farmer should consider when selecting the system of keeping birds.

Expenses involved in running the system//safety of the birds in a particular system//skill used in controlling poultry diseases//the number of birds to keep

- (b) Name the system of keeping poultry where;
 - (i) Birds are left to look for their own food. free range system
 - (ii) Litter is put on the floor of the house. **deep litter system**
- (b) Give any **one** way in which litter is important in a poultry house. Litter prevents breakage of eggs//litter keeps the floor dry.
- 53. On a sunny day, the sun shone brightly on a lake. The heat made the water change into vapour and rose into the atmosphere. As the vapour went higher, it cooled and

formed clouds. The clouds grew dark and heavy. Soon, water droplets began to fall on the ground. The water droplets filled rivers, lakes and supported the growth of plants.

- (a) Name the water droplets that fell on the ground. **Rain (reject rainfall)**
- (b) State what happened when the water vapour rose into the sky. **It cooled and formed clouds**.
- (c) State the importance of the lake in the formation of water droplets. **It adds water vapour to the atmosphere through evaporation.**

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- (d) Give any one way in which the water droplets that fell on the ground supported the growth of plants.
 It helps plants to make food//it provides water for germination//it softens soil for the roots to grow//it dissolves mineral salts for roots to absorb.
- 54. The diagram below shows a coin placed in a transparent glass containing water. Study and use it to answer the questions that follow.



- (a) Name the points of the coin marked **X** and **Y**.
 - (i) X : apparent depth
 - (ii) Y : real depth
- (b) State the property of light shown in the diagram above. **Refraction of light//light can be refracted**.
- (c) Give the importance of using a transparent glass.
 It allows clear observation of the depths of the coin in water.
- 55. (a) Write down any two disorders that affect the male reproductive system. Low sperm count//impotence//premature ejaculation//deformed penis// malformed sperms
 - (b) State any **one** advantage of child spacing to a mother in a family. It reduces maternal anaemia//it reduces maternal mortality rate//

it gives the mother's body time to repair.

(c) Give any one reason why females are highly affected by HIV/AIDS. They are easily raped by men who could have HIV//they are involved in prostitution//they are easily defiled









