

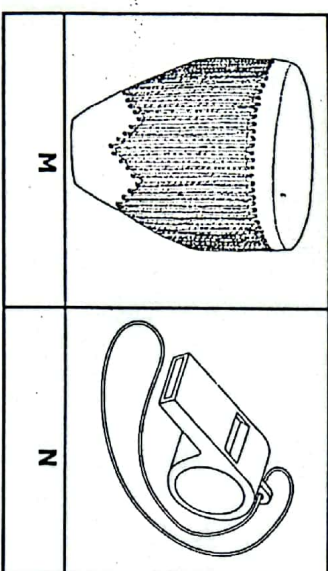
### SECTION A: 40 MARKS

- Name the type of weather that enables boats to sail on water.  
Windy weather
  - State any **one** way of controlling the spread of trachoma among school children.  
✓ Spraying insecticides to kill adult houseflies.  
✓ Avoid shaking hand with an infected person.  
✓ Destroying the breeding places for houseflies.
  - Which animal fibre is obtained by shearing merino sheep?  
Wool/fleece
  - Name the disease of the circulatory system that leads to abnormal production of white blood cells in the human body.  
Leukaemia/blood cancer
  - What is the importance of putting sand grains in poultry feeds?  
Sand grains help in the grinding/crushing of food in the gizzard of birds.
- The diagram below shows a chemical process. Use it to answer questions 6 and 7.



- What is the gaseous substance at R?  
Oxygen
- Name the chemical process that is formed at T.  
Burning/combustion
- Which sticky substance do honey bees use to repair damaged parts of the hive?  
propolis
- State any **one** way of controlling short circuits at home.  
✓ Use properly insulated electric wires when installing electricity.  
✓ Avoid overloading the sockets.
- Use fused electrical appliances in homes.  
✓ Replacing electric wires with damaged insulators.  
✓ Electricity should be installed by experts only.  
✓ Repairing faulty/damaged appliances.  
✓ Proper wiring when installing electricity.  
✓ Proper connection of electrical appliances.
- Give any **one** factor that favours the growth of a bean seed into a young plant.  
• Presence of oxygen.  
• Presence of warmth.  
• Presence of water.

- Give any **one** example of a non-renewable resource in the environment.  
Minerals//fossil fuels//rocks
  - State any **one** characteristic of dairy breeds of goats.  
They have large udders// They produce plenty of milk// They have long legs// They have a triangular shape// They have a thin body.
- The diagrams below show musical devices. Use them to answer questions 13 and 14.



- Identify the group of musical instruments to which the device marked M belongs.  
Percussion musical instruments
- How does the musical device marked N produce sound?  
By vibration of air molecules inside when blown.
- State any **one** way in which the spread of germs due to poor sanitation in the community can be controlled.  
✓ Proper disposal of faeces.  
✓ Spraying insecticides to kill adult insect vectors.  
✓ Draining stagnant water in the compound.  
✓ Regular smoking of ordinary pit latrines.  
✓ Keeping pit latrines clean regularly etc..... (Reject ensuring proper sanitation)
- Which part of a vacuum flask prevents heat loss or gain by radiation?  
Silvery walls/silvered surface (reject double walled glass)
- In which way is the food storage in a pea plant different from that in a cabbage plant?  
A pea plant stores its food in the pods while a cabbage plant stores its food in the leaves.
- State the feature that enables railway lines to expand during hot days.  
Presence of gaps left between rails during construction.



Give any **one** way in which a school health committee can promote health at school.

Providing hand washing facilities // Conducting regular school health parades // Ensuring the presence of dustbins at school // Ensuring proper sanitation in all areas of the school // Organising health seminars with external health workers. // Installing clean and safe water for drinking // Creating safe places for physical education at school // Organizing peer health education at school // providing

20. State any **one** advantage of planting seeds in a nursery bed before transplanting.

- ✓ It gives a farmer enough time to prepare the main garden.
- ✓ It allows a farmer to select healthy seedlings.
- ✓ It protects seedlings from harsh weather conditions.
- ✓ It prevents wastage of seeds.
- ✓ It allows proper care for seedlings.

21. How does a Mvule tree benefit from shedding all its leaves during dry season? A mvule tree reduces the rate of transpiration.

22. Which parasite transmits bubonic plague to human beings?

Rat flea (vector rat)

23. Which body system is affected by malaria parasites? circulatory system

24. Name any **one** equipment that can be used when finding the volume of an irregular object.

Measuring cylinder // overflow can // string // beaker

The diagram below shows a root crop. Use it to answer questions 25 and 26.



25. Why is the crop shown above grouped under root crops?

It has edible roots // It stores its food in the swollen underground roots.

26. Give any **one** advantage of piling soil around the root crop as shown in the diagram above.

It encourages the expansion of the tubers // It protects the tubers from damage by sunshine and tuber pests like mole

27. Apart from getting shelter, give any **one** other way in which termites benefit from soil.

They get food // They get building materials // They use soil as breeding grounds.

28. What term describes the way in which biceps and triceps work in the human body?

Antagonistic muscles

29. State the method of purifying water where chlorine is added to water to kill germs.

Chlorination

30. In which way does the sun help to prevent rickets among children?

Sunshine enables the skin to make vitamin D (Reject; The sun is a source of vitamin D // Provides vitamin D)

31. Apart from regular vaccination, state any **one** other way of preventing the spread of pneumonia in rabbits.

Keep the hutch clean daily. // Make the hutch well ventilated // Separate infected rabbits from health ones // Keep rabbits away from coldness

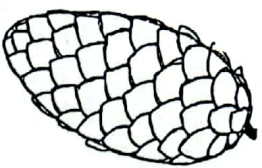
32. Give any **one** reason why amphibians lay their eggs covered with jelly.

To protect their eggs from being eaten by predators // To prevent their eggs from being swept away by flowing water // To hold eggs together for easy fertilisation

33. How is the way in which a tsetse fly spreads germs different from that of a housefly?

A tsetse fly spreads germs through bites / by biting while a housefly spreads germs by use of its hairy body.

The diagram below shows a part found on a pine plant. Use it to answer questions 34 and 35.



34. Name the part of the pine plant shown above.

cone

35. How does the part shown above help a pine plant to multiply?

It stores seed used for reproduction.

36. Name the disorder of the respiratory system that leads the blockage of the air passage.

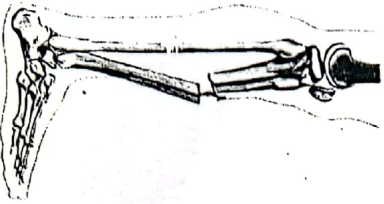
Choking (reject; choking)



37. State any **one** way in which water is important in the soil.  
Facilitates seed germination//Supports the life of soil organisms//Speeds up decomposition of organic matter in the soil//Dissolves mineral salts in the soil//Enables plants to make their food.
38. Give a reason why a hard material should be put in the mouth of a convulsing victim.  
To prevent the casualty from biting the tongue.
39. What type of changes takes place when a nymph develops wings?  
Biological change (*Reject growth*)
40. State the method used to separate substances with different boiling points.  
Fractional distillation/fractionation

#### SECTION B: 60 MARKS

41. (a) Which immunisable disease is spread by cockroaches?  
Polio/poliomyelitis//cholera//typhoid//rotavirus diarrhoea
- (b) Give any **two** characteristics which enable make a cockroach to spread germs easily to human health.  
They feed on decaying matter//They have a hairy body//They live in dirty places//they reproduce faster// They have high mobility rate.
- (c) State any **one** practice that can be done to control the breeding of cockroaches at home.  
Proper disposal of human wastes//Spraying insecticides to kill adult cockroaches// Keeping latrines clean regularly.
42. The diagram below shows a type of fracture. Study and use it to answer the questions that follow.



- (a) Name the type of fracture shown above.  
Compound fracture
- (b) Give any **two** signs of the type of fracture shown above.  
-The broken bones comes out of the skin.  
-Bleeding at the injured part.  
-Damaged tissue at the injured part.  
-Swelling of the injured part.  
-Severe pain around the injured part
- (c) State any **one** way in which you can give first aid to a casualty with the type of fracture shown above.  
-The splints around the injured part.  
-Give the casualty crutches to help him/her in walking.  
-Use a stretcher to carry the casualty to the health centre.

43. (a) Apart from jácara, mention any **two** other examples of seeds dispersed by wind in the environment.  
-Silk cotton seeds//tridax seed// phyllon fruit seed// orchid seed
- (b) State any **two** characteristics of seeds dispersed by wind.  
They are small and light//They have a hairy-like structure//They have feather-like structure//They have parachute-like structure//They have wing-like structure (*Reject, They are 'small' alone*)
44. (a) Apart from enzymes, give any **two** other substances that help in the digestion of food in the human body.  
-Saliva//teeth//hydrochloric acid//digestive juice
- (b) State any **one** role played by enzymes during digestion of food.  
-They speed up chemical digestion//They change food from one form to another.
- (c) Give any **one** health habit that helps to strengthen the human digestive system.  
-Feeding on a balanced diet//Doing regular physical exercises//Limiting alcohol intake//Having regular meals//Drinking plenty of boiled water.
45. (a) Name the mode of reproduction in;  
(i) Yeast cell budding/budding  
(ii) Toadstool by means of spores/sporulation
- (b) State any **two** ways in which yeast is important to people.  
It is used in the brewing of alcohol//It is used to flavour cheese//It is used in baking of bread//It is a source of nutrients like vitamin B, proteins and mineral salts e.g. potassium
46. (a) Write down any **two** changes of state of matter that take place in the absence of heat.  
Evaporation//condensation//freezing//melting//deposition//sublimation  
Mnemonic used: MEEDCS
- (b) Give any **two** ways in which good conductors of heat are useful to people.  
-They are used for making cooking utensils.  
-They are used for making electric wires.  
-They are used to transmit electricity.



The table below shows cattle diseases, germs that cause them and signs of each disease. Study and complete it correctly.

Disease	Germ	Sign of the disease
(i) Mastitis	Bacteria	Swollen udder//painful udder Udder//Blood-stained milk
(ii) Foot and mouth disease	Virus	Blisters on top of the hooves and mouth.
(iii) Heart water disease	bacteria	Animals walk in circles.
(iv) Nagana	protozoa	loss of weight//loss of appetite

48. (a) Give any **two** factors that affect the weight of an object.  
Nature of the object//Material from which an object is made//Force of gravity//Upthrust force//Mass of an object.

- (b) State any **two** differences between weight and mass.

-Mass is measured in kilogrammes or grammes while weight is measured in Newtons.  
-Mass is constant while weight changes.  
-Mass is the quantity of matter an object contains while weight is the force of gravity acting upon an object.

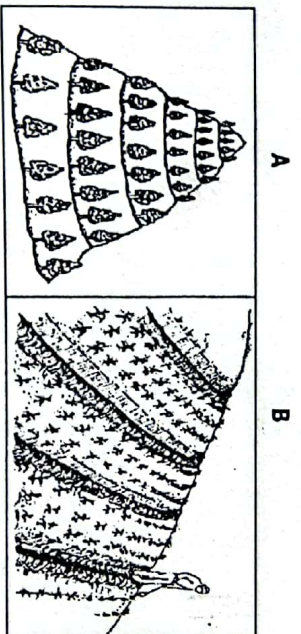
49. (a) Name the method used to administer;

- (i) Polio vaccine in the body oral method/orally/Putting drops in the mouth

- (ii) BCG vaccine in the body injection method

- (b) Give any **two** ways in which immunization helps to maintain the health of infants.  
It protects infants from childhood killer diseases//It reduces infant mortality rate//It boosts the immunity of the babies//It reduces disability among children.

50. The diagrams below show methods of controlling soil erosion in the environment. Study and use them to answer the questions that follow.



- (a) Name the methods of controlling soil erosion marked A and B.

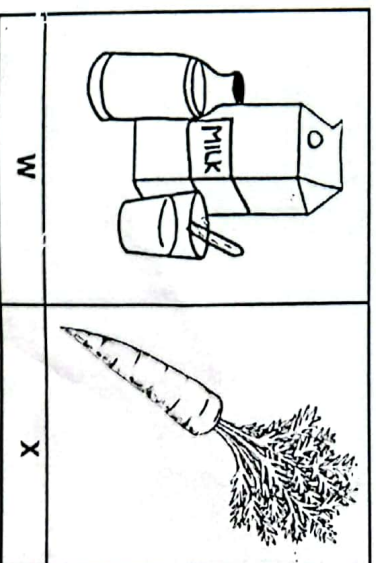
- (i) A terracing

- (ii) B contour ploughing

- (b) How does method marked A control soil erosion?  
Terraces reduce the speed of fast flowing water.

- (c) Identify any **one** land scape in which the methods of controlling soil erosion above can be used.  
hilly areas//mountainous areas

51. The diagrams below show foodstuffs. Study and use them to answer the questions that follow.

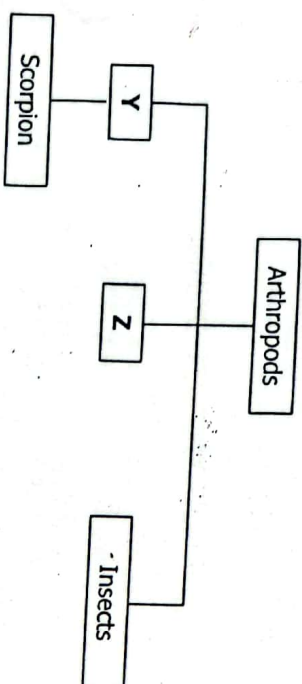


- (a) Name the food nutrient found in the foodstuffs marked W and X.

- (i) W proteins

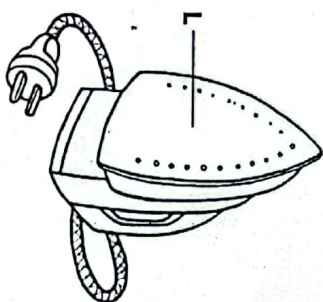
- (ii) X vitamin A

- (b) Identify the deficiency disease caused by lack of food nutrient found in foodstuff **X** in one's diet.  
**Night blindness**
- (c) State any **one** sign of deficiency of food nutrient found in foodstuff **W** in children.  
**Swollen moon-like face // Stunted growth // Sunken stomach // Swollen limbs // Wasted muscles // Soft brown hair scattered on the head.**
52. The table below shows groups of arthropods. Study and use it to answer the questions that follow.



- (a) Name the group of arthropods represented at **Y**.  
**arachnids**
- (b) State the difference between a scorpion and arthropods at **Z** in the way they reproduce.  
**A scorpion produces live young ones while arthropod Z lays eggs.**
- (c) Mention the group of arthropods from the classification table above to which a praying mantis belongs.  
**Insects**
- (d) Identify the group arthropods that is not included on the classification table above.  
**Myriapods**
53. (a) Give any **two** examples of bacterial Sexually Transmitted Diseases (STDs) that can spread among the youths.  
**Gonorrhoea // syphilis // chlamydia**
- (b) Mention any **two** ways in which Sexually Transmitted Diseases (STDs) can spread among the youths in the community.  
**Through having unprotected sexual intercourse // Through sharing sharp piercing objects with an infected person // Through skin-to-skin contact e.g. genital warts and herpes**

54. The diagram below shows an electrical appliance. Study and use it to answer the questions that follow.



- (a) What form of energy enables the above electrical appliance to work?  
**Electrical energy/electricity**
- (b) How does the electrical appliance above work?  
**By changing electrical energy to heat energy.**
- (c) In which way is the above electrical appliance useful to people?  
**It enables people to iron their clothes and bedding. / It is used for ironing clothes / bedding.**
- (d) Name the form of energy produced at part marked **L**.  
**Heat energy**
55. (a) Apart from brass, give any **one** other example of an alloy.  
**Bronze // solder // steel // dental amalgam (Reject dentist amalgam)**
- (a) Name the **two** metals used to make brass.  
**Copper // zinc**
- (b) Give any **one** reason why alloys are made.  
**✓ To lower the melting point of metals  
✓ To make metals more resistant to corrosion.  
✓ To make wear and tear of metals difficult / To make wear and tear of metals strong and durable.**

END