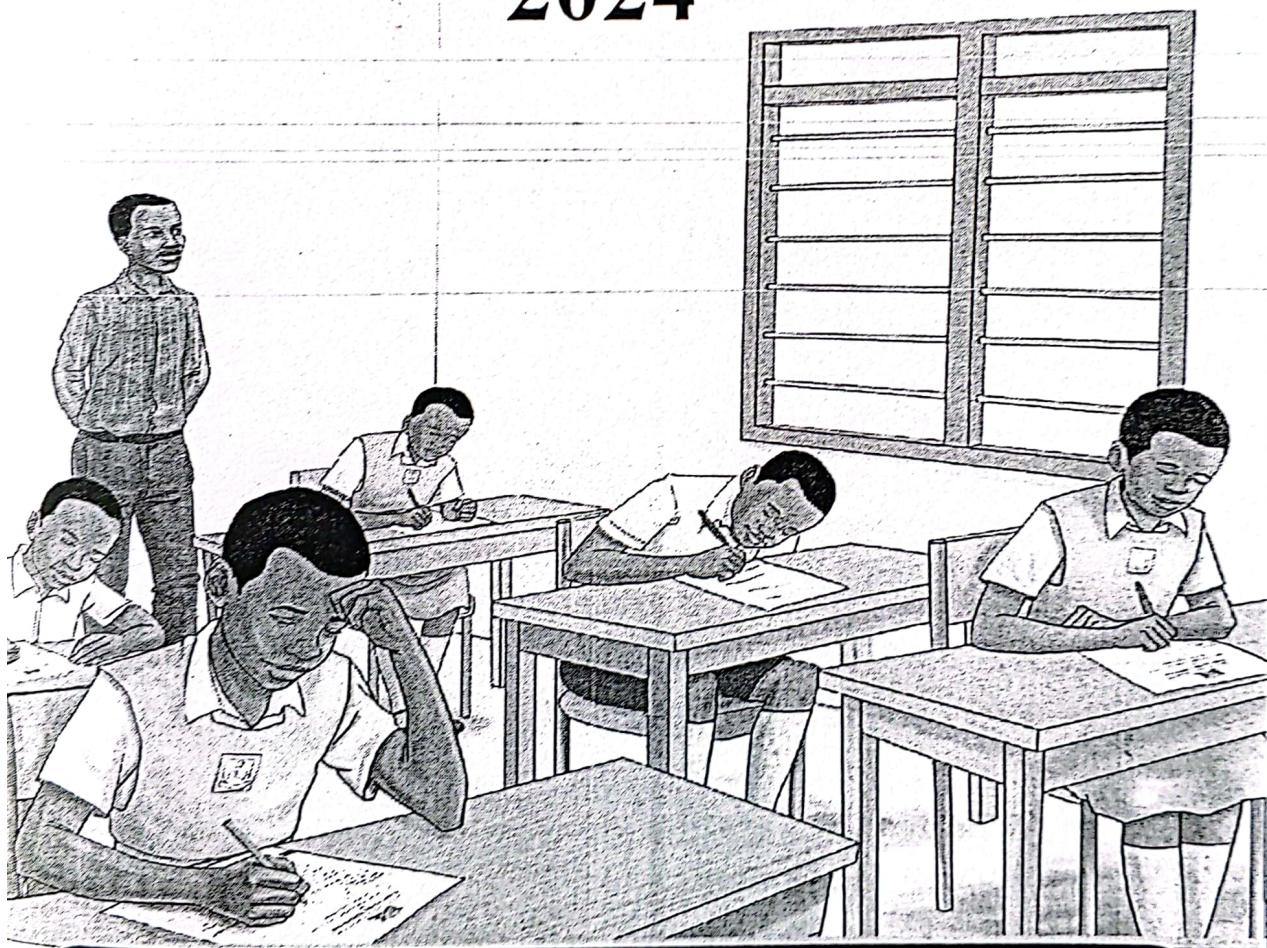


SUREKEY EXAMINATIONS BOARD



"Don't speak for Quality, Let Quality Speak for itself"

2024



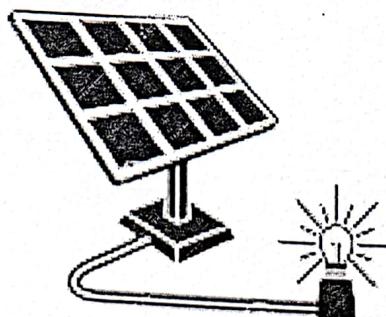
INTEGRATED SCIENCE UNIQUE SERIES
OFFICIAL MARKING GUIDE

SECTION A: 40 MARKS

Questions 1 to 40 carry one mark each

1. Name the intestinal worm that penetrates through the bare skin of the feet.
Hookworm
2. State any **one** factor to consider when planning to start crop rotation.
-Availability of legumes/presence of legumes
-Type of crops to be grown. **-The resting period for the soil**
-Depth of plant roots
3. Apart from storing food, give **one** other function of the cotyledon in a ground nut seed.
Cotyledon supplies food to the growing embryo during germination.
4. Write down any **one** piece of information found on prescribed drugs.
-Number of drugs to be taken
-Time at which to take the drug
-Side effects of the drug to the patient
-Name of the given drug
5. Give the importance of mycelium to a mushroom.
Mycelium absorbs food from organic decaying matter

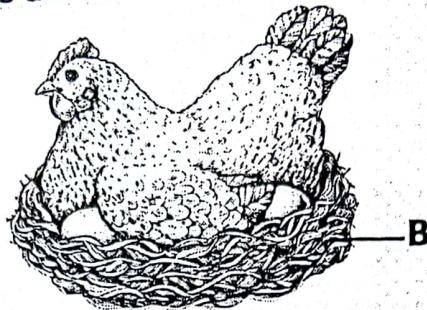
The diagram below shows a device used in the production of an energy resource in the environment. Use it to answer questions 6 and 7.



6. Name the energy resource produced using the device shown above.
Solar energy
7. Why is the device above usually put on the top of roof of the building?
To easily access sunlight/sunshine
8. Name any **one** class of food that is directly absorbed into the bloodstream of the human body.
-Vitamins
-Mineral salts

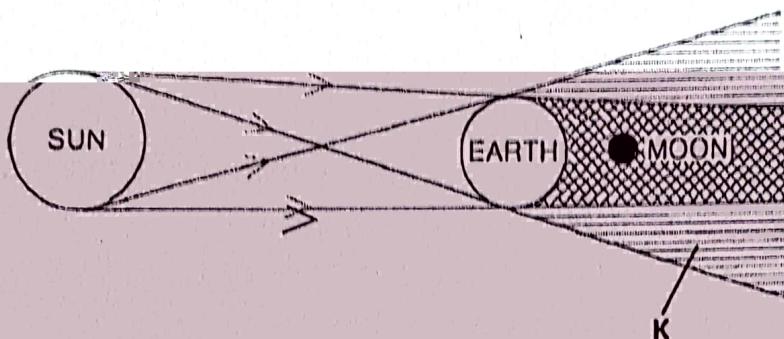
9. Give any **one** reason why plants and animals cannot be grouped together as living things.
- Plants have chlorophyll unlike animals
 - Plants make their own food while animals feed on ready made food
10. State any **one** way in which washing clothes is important to human health.
- It helps to prevent some skin diseases
 - It helps to kill some parasites in clothes
11. State any **one** characteristic of rib cages during breathing in humans.
- Rib cages move upwards
 - Rib cages move outwards
12. State any **one** way in which the spread of communicable intestinal diseases can be minimized at school.
- Eating well cooked meat
 - Washing all foods eaten raw
 - Proper disposal of rubbish
 - Wearing shoes and sandals
 - Proper disposal of human wastes
 - Drinking boiled water
13. Give any **one** reason why mercury is used in a clinical thermometer.
- Mercury expands uniformly
 - Mercury can be visible easily/it is opaque
 - Mercury is a good conductor of heat
 - Mercury does not wet the glass tube
14. Write down any **one** method of grazing cattle where pasture land is divided into portions.
- Paddock grazing/ paddocking
 - Strip grazing
15. Apart from blocking water drainage, mention any **one** other way in which plastic materials affect the soil.
- Plastic materials kill useful soil organisms
 - Plastic materials lead to poor soil aeration
 - Plastics pollute the soil
16. Give any **one** way in which claws are useful to birds.
- For protection
 - For climbing trees
 - For perching on tree branches
 - For scratching the ground to get food
 - For firm gripping when the bird is mating

The diagram below shows a method of incubation in poultry. Use it to answer questions 17 and 18.



17. Give any **one** reason why you would not advise poultry farmers to use the method of incubation shown above.
- Few chicks are hatched at a time
 - The eggs can be eaten by the mother bird
 - Eggs may not hatch in case the broody bird dies
18. Why should the structure marked **B** be put in dark places?
- To control egg eating
19. State any **one** reason why pregnant women are encouraged to do regular physical exercises.
- Physical exercises make their muscles of the womb flexible
- Physical exercises enable the baby to move and turn easily in the womb
- Physical exercises improve blood circulation
- Physical exercises prevent complications during birth
- Physical exercises reduce overweight of the body
20. Give anyone feature used to identify the types of soil in the environment.
- Inter particle space
 - The texture of soil particles
 - Soil colour
 - Humus content/ organic matter content
 - The size of soil particles
 - Soil structure
 - Soil composition
 - Water retention capacity
21. In which way is the glass envelope of an electric bulb able to allow light to the surrounding?
- It is transparent
22. Apart from eating the root tubers, mention any **one** other way in which pests destroy crops in the garden.
- Through eating plants
 - Through sucking plant sap
 - Through biting/cutting plants
 - Through pecking seeds
23. State any **one** way in which the breeding of bedbugs can be prevented at home
- Spraying with insecticides
 - Spreading clothes in sunshine
 - Regular washing of the bedding and clothes in hot water
 - Ironing clothes
 - Filling cracked walls
 - Pouring hot water in the joints of bed

The diagram below shows a type of an eclipse. Use it to answer questions 24 and 25.



24. Identify the type of eclipse shown in the diagram above.

Lunar eclipse/eclipse of the moon

25. Name the shadow marked K on the eclipse shown above.

Penumbras

26. Apart from shedding leaves, state any one other way in which plants reduce the rate of water loss through leaves.

-Have narrow leaves
-Have sunken stomata
-Some have spiny leaves

-Covering the stomata with wax

-Have hairs on the leaf surfaces

27. Name the group of simple machines that perform the same role as the incisor teeth in human beings.

Wedges

28. Give any one activity carried out by the school health club.

-Organizing school health meeting
-Conducting school health parades
-Monitoring the health of children at school
-Monitoring food preparation at the kitchen
-Maintaining school hand washing facilities
-Setting up school rules

29. State any one reason why you would advise a farmer to use a top bar hive when planning to start a bee keeping project.

-It is easy to inspect honey combs
-It is durable/it is long lasting
It is not damaged during honey harvesting
The colony develops undisturbed

-Clean honey is harvested

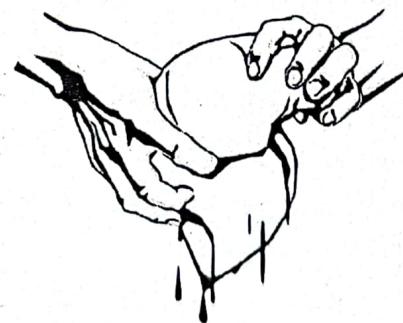
-Swarming is less

30. Give any one way in which the strength of an electromagnet can be increased.

Increasing the number of turns of wire in the coil
Increasing the current flowing through the coil

31. Give any **one** way in which the spider benefits from its web.
- It traps the prey for the spider
 - It provides shelter to the spider
 - It helps a spider to defend itself
32. Apart from being cheap, state any **one** other reason why most farmers in rural areas use free range system of keeping poultry.
- | | |
|---|--|
| <ul style="list-style-type: none"> -Birds need less attention -Birds get to feed on the variety of food | <ul style="list-style-type: none"> -Reduces poultry vices |
|---|--|
33. State any **one** way in which you can help a casualty who has got a fracture.
- Tying splints around the injured part
 - Carrying the casualty using a stretcher
 - Give the casualty crutches/crutch -Give the casualty arm sling
34. State any **one** energy change that takes place in a complete electric circuit.
- Chemical energy changes to electrical energy
 - Electrical energy changes to heat and then light energy
35. Mention any **one** process that enables the human body to work.
- | | | |
|--|--|--|
| <ul style="list-style-type: none"> -Digestion | <ul style="list-style-type: none"> -Respiration | <ul style="list-style-type: none"> -Excretion |
|--|--|--|
36. State any **one** reason why gap filling is important in crop growing.
- It ensures correct crop population
 - It prevents the wastage of space in the garden
37. Name any **one** method that school children can use to put out petrol fire in case it breaks out at school.
- | | |
|---|--|
| <ul style="list-style-type: none"> -Using sand to put out petrol fire -Using fire extinguisher to put out petrol fire | <ul style="list-style-type: none"> -Using fire blankets |
|---|--|

The diagram below shows the step taken when cleaning clothes at home. Use it to answer questions 38 and 39.



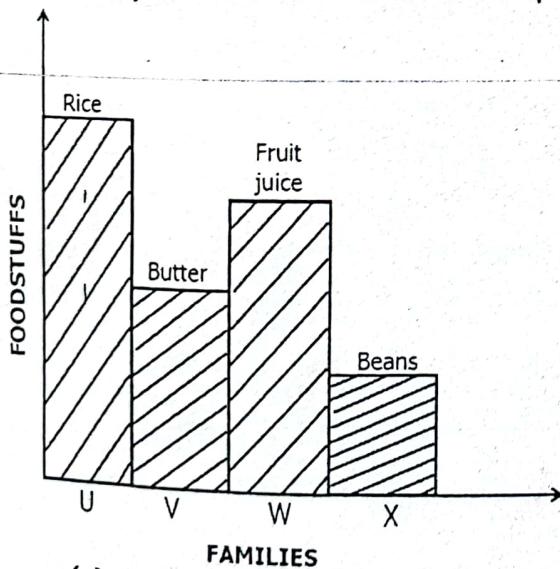
38. Identify the step of cleaning clothes shown in the diagram above.
Wringing
39. Give any **one** way in which the step shown is important in the cleaning of clothes at home.
It removes excess water from clothes to ease drying

40. Give any **one** sign of gonorrhoea in humans.
- Discharge of pus from the vagina or penis
 - Blindness in newly born babies
 - Pain in the lower belly
 - Painful urination
 - Blockage of the oviducts

SECTION B: 60 MARKS

41. (a) Name the digestive juice produced in the stomach.
Gastric juice
- (b) Apart from producing digestive juice, give any **two** other functions of the stomach during digestion.
- It secretes hydrochloric acid
 - It churns food/ It aids mechanical digestion
 - It stores food for a short time
- (c) State any **one** way in which excessive drinking of alcohol affects the stomach.
- It worsens peptic ulcers
 - It causes stomach ulcers
 - It may cause gastritis
 - Increases stomach acid

42. The graph below shows different foodstuffs consumed by different families. Study and use it to answer the questions that follow.



- (a) Which class of food is mostly consumed by the family **U** above?
Carbohydrates
- (b) Identify the health condition is prevented in children as shown in family **X**.
kwashiorkor
- (c) State any **one** way in which members in family **W** benefit from drinking fruit juice.
- Taking fruit juice prevents dehydration among family members
 - Taking fruit juice eases digestion
 - Taking fruit juice keeps the body of family members healthy
- (d) Name any **one** foodstuff where the family **V** is most likely to use butter.
- Tomatoes//Cabbages//Kale//Eggplants//Meat//Fish
 - Beans//Peas (Accept vegetables)

43. (a) Write down any **two** activities that involve the use of yeast.
- Baking // Brewing // Flavouring cheese**
- Processing animal feeds in industries**
- (b) Name the chemical process that requires yeast to take place.
- Fermentation**
- (c) How is reproduction of yeast different from that of puffballs?
- Yeast reproduces by budding of cells yet puffballs reproduce by means of spores.**
44. (a) Give any **one** way in which you can tell that the rabbit is healthy.
- A healthy rabbit has good appetite to eat**
- It has a shiny coat** **-It has bright eyes**
- It is energetic** **-It has normal breathing**
- It has smooth and clean fur**
- (b) Name the disease that affects the sense organs of hearing in rabbits.
- Ear canker**
- (c) State any **two** measures taken by farmers to safeguard their rabbits from contracting diseases.
- Regular vaccination** **-Spraying with acaricide**
- Regular cleaning of the hutch**
- Proper ventilation of the rabbit hutch**
- Providing clean water and feeds to rabbits**
45. The list below shows objects with different densities. Study and use it to answer the questions that follow.
- stone, boat, cassava tuber, ship, axe, leaf**
- (a) Identify any **one** object from the list above that displaces water;
- (i) Equal to its weight: **leaf//ship//boat//**
- (ii) Equal to its volume : **stone//axe// cassava tuber**
- (b) A cassava tuber and a leaf on the list above were thrown from the same height. Which object reached the ground first?
A cassava tuber
- (c) Why did the object above reach the ground first?
A cassava tuber has less air resistance than a leaf
(reject: cassava tuber is denser)

46. The document below shows the kind of information gathered during a health survey in Magere Village. The items found out in the village were; Malaria, chlorine, health centre which is located 5 km away and pit latrines.

Study the information above carefully and fill in the spaces provided in the table below correctly.

Health Survey Report:

Name: Ajjambo Chloe Village: Magere

Date: 25/05/2024

Areas Surveyed:

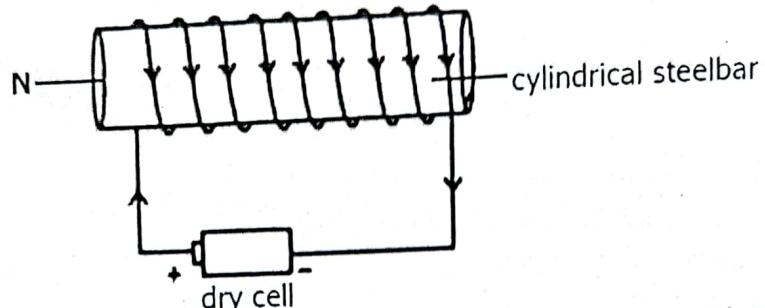
1. The most types of latrine used in this village are **Pit latrines**
2. Matoke and ground nut paste is the kind of food people commonly eat in Magere village.
3. **Malaria** is the common disease affecting children in this village.
4. The main source of drinking water in this village is well.
5. Most of the children in this village were immunized.
6. People use **chlorine** to treat water from wells to make it safe for drinking.
7. The population in the village is big compared to the available resources. This has affected the economic status of people due to lack of jobs.
8. The nearest health centre is located **5kilometres** away from most of people's homes.

Thank you for your participation! Your input is invaluable in improving health outcomes in our community.

Checked by;
Nantongo Lillian
V.H.T Member

47. (a) Write down **two** types of vaccines given to babies once in their lifetime. -Measles vaccine -BCG vaccine
- (b) State any **one** condition under which vaccines should be kept.
-Cold conditions/cool conditions
-Well sealed containers -A clean dry place
- (c) Name **one** group of organisms used in the making of vaccines.
-Bacteria -Virus

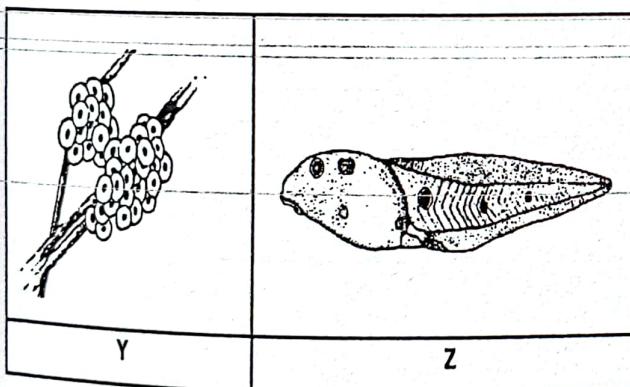
48. The diagram below shows a method of making temporary magnets. Study and use it to answer the questions that follow.



- (a) Name the method of making temporary magnets shown in the diagram above. **-Electrical method**
- (b) Identify the pole marked N. **-South Pole**
- (c) What happens to the cylindrical steelbar when the circuit is complete? **It is magnetized**
- (d) Identify the temporary magnet formed by the cylindrical steelbar. **Electromagnet**
49. (a) Give the role of the following components in a food chain.
- (i) Plants: **provide food to primary consumers**
(Reject: plants act as producers)
- (ii) Primary consumers: **provide food to secondary consumers**
- (b) Name the main source of energy for the producers in a food chain. **The sun/sun**
- (c) State the difference between a prey and a predator in a food chain. **A prey is an animal which is hunted and killed by another animal for food while a predator is an animal which hunts and kills another animal for food.**
50. (a) Apart from melting of ice blocks, give any one other physical process that takes place in the presence of heat gain.
-Evaporation **-Sublimation**
- (b) State what happens to the following when a block of ice melts;
- (i) volume: **reduces/decreases**
- (ii) density: **increases**
- (c) Give any one way in which ice is useful to people.
-Used to preserve some food **-Relieves pain**
-Cools the body **-Used in ice skating**
-Enables people to obtain water
-Helps to keep food and drinks cool
-Ice reduces swelling of the injured part

51. (a) Apart from producing sweat, give any **two** functions of the skin to a primary seven candidate.
- The skin regulates the body temperature
 - The protect the body against strong radiations
 - The skin produces vitamin D when exposed to morning sunlight
- (b) In which **one** way is sweat produced by the human skin useful to a primary seven candidate?
- It helps to cool the body.
 - It helps to remove metabolic wastes from the body
- (c) State any **one** practice that can damage the skin of a primary seven candidate.
- Skin bleaching -Poor feeding
 - Exposing the skin to strong radiations
 - Failure to bathe regularly -Wearing tight clothes
 - Failure to carry out physical exercises

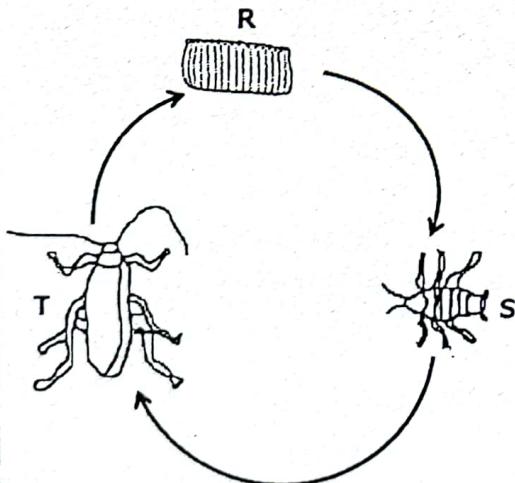
52. The diagram below shows the stages in the growth of an amphibian.
Study and use it to answer the questions that follow.



- (a) Identify the amphibian that lays the eggs marked **Y**.
- Frog**
- (b) Which class of vertebrates breathe the same as the stage marked **Z**?
- Fish**
- (c) What type of fertilization do the eggs marked **Y** undergo?
- External fertilization**
- (d) State anyone characteristic of an amphibian that lays the eggs marked **Y**.
- It moves by leaping
 - It has brown tadpoles
 - It has a smooth slippery skin
 - It breathes through lungs and moist skin
 - It has fully webbed feet
 - It has long hind legs

53. The sentences below show the process of hearing in wrong order.
- (a) The cochlea converts vibrations into the nerve impulses.
- (b) The pinna picks the sound waves and the ear canal sends them to the eardrum.
- (c) The nerve impulses are later sent to the brain for interpretation through the auditory canal.
- (d) The eardrum changes sound waves into sound vibrations and sends it to the ossicles to be amplified.

Write the sentences above correctly in the spaces provide below to show the process of hearing in human beings.

- (a) The pinna picks.....
- (b) The eardrum changes sound waves.....
- (c) The cochlea converts vibrations into.....
- (d) The nerve impulses are later
54. (a) Write down any **two** causes of poisoning at home.
-Eating expired food -Taking overdose
-Keeping drugs in reach of children
-Keeping chemicals in containers which are commonly used
-Keeping unlabeled drugs -Ignorance
- (b) Why is it **not** advisable to make a casualty who has drunk jik to vomit.
Vomiting may cause damage to the throat or gullet
- (d) State any **one** way in which poisoning can be prevented at home.
-Label dangerous chemicals
-Keep chemicals out of reach of children
-Read and follow instructions on chemicals
-Provide proper storage of chemicals
-Keep chemicals in lockable cupboards
55. The diagram below shows the biological change in a vector. Study and use it to answer the questions that follow.
- 
- (a) Identify the biological process shown in the diagram above.
Metamorphosis/lifecycle
(reject: incomplete lifecycle/incomplete metamorphosis)
- (b) Name the stages the stages marked **R** and **S** on the diagram.
(i) **R: egg stage**
(ii) **S : nymph**
- (c) Give any **one** disease transmitted by the stage marked **T** to people.
Polio //Cholera //Dysentery //Leprosy //Typhoid

END