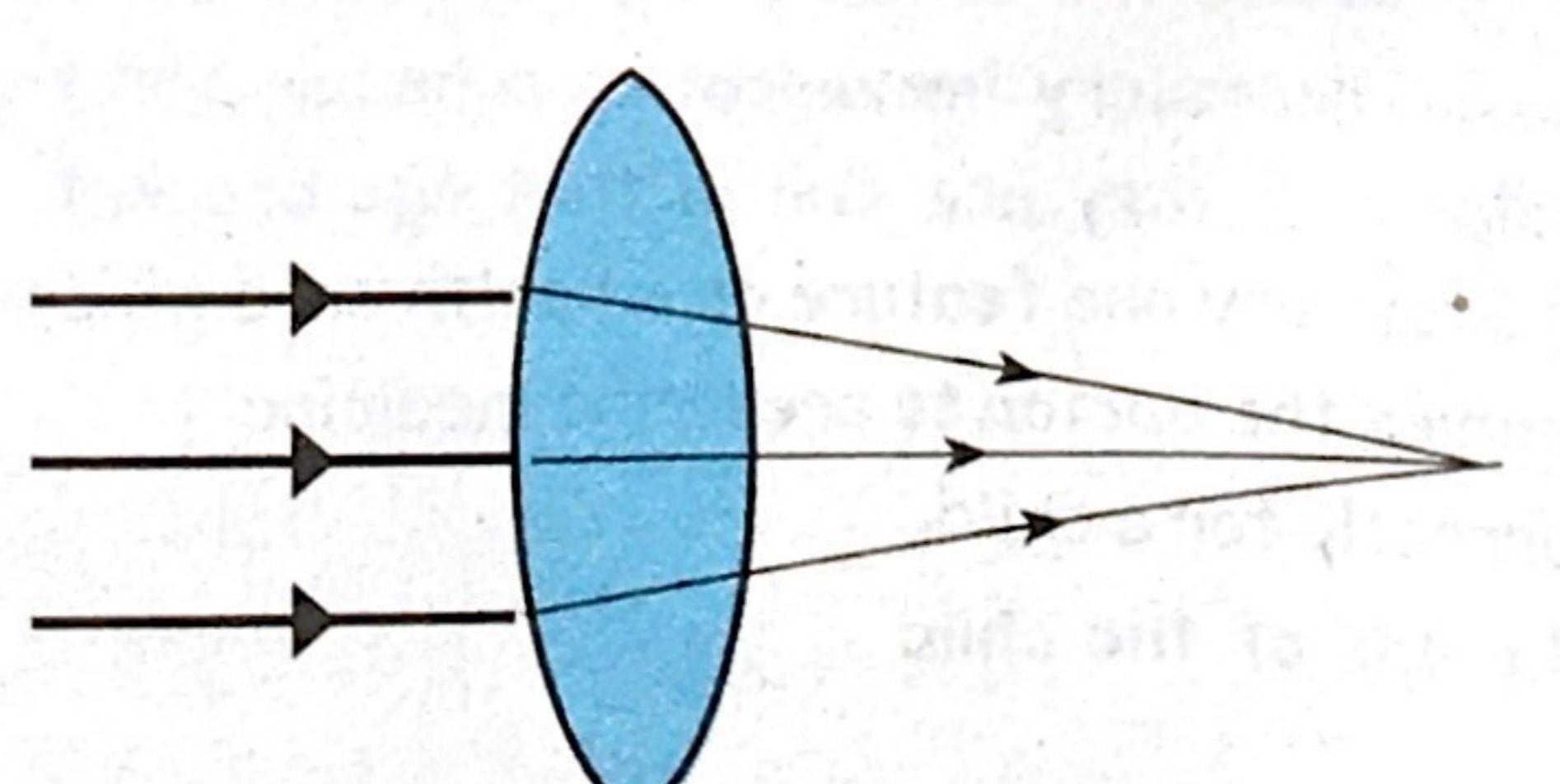




BUKEDDE: ANSWERS TO THE INTEGRATED SCIENCE MOCK EXAMINATION, 2023

SECTION A (40 MARKS)

1. Give one example of a legume we eat at school.
Beans/ groundnuts/ peas
2. What happens to seedlings when they lack sunlight?
Their leaves turn yellowish/ stunted growth
3. Give one example of an arachnid that is a danger to cattle.
Ticks, mites.
4. Name the food value we get from sugarcanes.
Carbohydrates.
5. What does a mushroom use to reproduce?
Spores.
6. State the danger of not brushing your teeth regularly.
It leads to tooth decay/ it leads to dental plague.
7. Apart from weevils, give any other insect that destroys crops.
Grasshoppers/ butterflies at caterpillar stage.
8. State the major role of chlorophyll in the process of Photosynthesis.
It traps sunlight.
- The diagram shows a foot of a bird. Use it to answer question 9 and 10.
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9. Give example of a bird with the above foot.
Eagle/ hawk/ kite/ owls.
10. How useful is the nature of the above foot to the bird?
The talons on it help the bird to grip or hold and carry its prey.
11. State any one advantage of breastfeeding to a mother.
Used as a method of family planning/ it is cheap for the mother/ it is convenient for the mother especially during night feeding of the baby.
12. What do we call a condition when a person does not have enough red blood cells?
Dehydration.
13. How does a single fixed pulley make work easy?
By changing the direction of the force
14. Which part of the ear is essential for body balancing?
The semi-circular canal
15. Apart from charcoal burning, name one practice that is a danger to trees.
Brick baking/ firewood selling/ baking bread/road construction.
16. How can dairy farmers control the spread of mastitis on the farm?
Massage the teats with warm water after milking them/ maintain proper hygiene around the milking parlor and kraal or shed/test milk for mastitis using a strip cup.
17. Give a reason why food is digested in the body.
For easy diffusion of food into the blood stream/ to make food soluble so that is used by the body
18. Give a reason why a grasshopper is an arthropod.
Has jointed legs and segmented body.
19. Which group of flowering plants mainly have parallel leaf venation?
Monocotyledonous plants/ monocots.
20. What is the use of synovial fluid in the human body?
Lubricates the joint to reduce friction
21. How are lungs adapted to gaseous exchange in man?
They have many air sacs that increase the surface area for diffusion of air into the blood stream.
22. Complete the diagram below correctly.
- 
23. What is the use of ORS to a child with diarrhoea?
It rehydrates the child/ it prevents the child getting dehydrated.
24. Why does ice float on water yet it is a solid?
Ice is less dense than water
25. Which immunisable disease paralyses limbs of human beings?
Poliomyelitis/ polio
26. What causes evaporation in a water cycle?
Heat from the sun.
27. Give one activity of sanitation that reduces the spread of malaria in a community.
Draining away stagnant water in the compound/ slashing tall grass or bushes around the home.
28. By what process does oxygen and food enter the placenta?
By diffusion
29. Why is pole marked K a north pole?
It is because magnetism flows from the north pole to the south pole of a magnet.
30. Name the process that root hairs use to absorb water from the soil.
Osmosis
31. How is recycling of wastes important to the environment?
It helps to reduce improper dumping of non biodegradable wastes in an area/ it prevents soil and water pollution in an area
32. Why is a queen excluder important in a top bar hive?
It prevents the queen bee from laying eggs in the honey chamber
33. Which practice of cultivation reduces soil erosion in hilly areas?
Contour ploughing/ terracing/ strip cropping

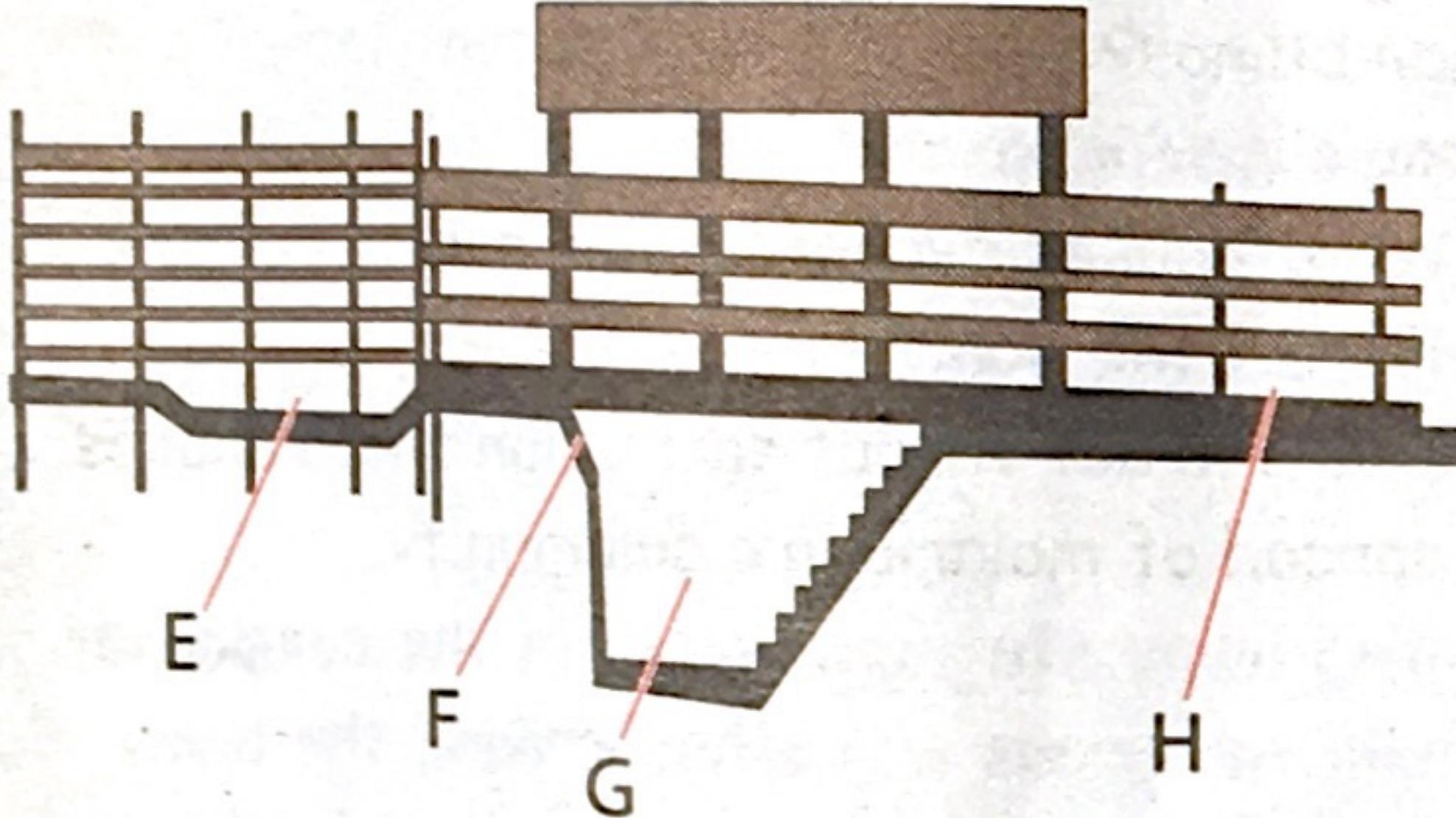
34. Why do car tyres wear out faster on tarmac roads than on murram roads?

There is more friction between the tyre and tarmac compared to that of the tyre and murram.

35. Give a reason why drugs should be kept in a cool/dry place?

To prevent them from getting spoiled/ to prevent reduction of their efficiency.

41. The diagram below shows a farm structure used for dipping cattle on a cattle farm. Use it to answer questions that follow



a) Name the part labelled E in the above structure.

Foot bath

b) How is part marked H useful in the above structure?

It prevents wastage of the acaricides by allowing the acaricides to drain away completely from the body of the animal before it moves out.

c) In which way is the chemical found in part G able to control heartwater on the farm?

It kills ticks on the body of the animal.

d) Mention one advantage of using the above facility for controlling ticks over spraying.

Many animals can be dipped at the same time of use of acaricides/ the acaricides is well distributed all over the body of the animal.

42. a) Mention any two safety precautions given when using electricity at home.

a) Do not touch bare electric wires

- avoid overloading electric sockets

- do not take shelter under trees when it is raining

- Do not touch electric sockets with wet hands, wearing gloves when handling live wires.

b) How are gloves able to protect an electrician when repairing electrical devices?

They protect the person against electric shocks by preventing electricity from passing through it.

c) State any one reason why electricity can be a bad master at home.

It shocks people to death/ It shocks people's

36. How can water be an energy resource?

When used for the generation of hydro electricity/ steam from water is used to drive steam engines

37. Which part of a living house allows stale air out?

Ventilators .

38. What is the use of a dorsal fin to a tilapia fish?

For defence/ for fighting its enemies/prevent it

from rolling when in water.

39. Give a reason why arteries have thick walls.

To enable them withstand the high pressure of blood through them..

40. State any one property of solid states of matter.

They have a definite shape/ their molecules are closely packed together/ they do not flow

SECTION B (60 MARKS)

41. a) State the meaning of the term puberty.

Puberty is a period when an adolescent is sexually mature and can bear a child but s not yet ready b) Give any two primary sex changes that are common in both girls and boys.

- The reproductive organs enlarge

- The reproductive organs start producing mature reproductive cells.

c) Mention any one problem faced by adolescents due to emotional sex changes in their bodies.

They face a problem of rejection and isolation from their teachers, church, and families

- They contract sexually transmitted diseases easily

- They get a problem of early pregnancies.

44. a) Give any two roles of a health prefect in a school.

Conducts health parades

- passes health messages from school administration to the pupils

- ensures proper sanitation in the school

- organises health posters and displays them in the compound

b) How is a child immunisation card useful to the school health committee?

- It enables the health committee to know whether the child was immunised or not.

- It enables the health committee to monitor the health of the child at school

- It enables the school health committee to organise necessary immunisation schedule for the children if they are still in that age bracket.

c) State any one feature on a health card which enables the doctor to prescribe medicine correctly for a child.

The age of the child

45. a) Give two examples of the following changes in plants.

i) Biological changes

- Ripening of fruits

- germination

- fruiting of plants

- flowering of plants

- fertilisation in a flower

ii) Chemical changes.

ii) Photosynthesis

- respiration

b) State any two effects of natural changes in the environment.

They bring diseases to people.

- They lead to destruction of people's property

- They cause death of living things

- They cause increase in the population of living things in an area

46. a) Give any two roles played by NEMA in environmental protection in Uganda.

They protect wetlands against destruction

- monitors and assesses projects that are done in the wetlands

- it does impact assessment before activities are done on land.

b) Mention any ways NEMA has protected the environment in Uganda against degradation.

By closing all illegal activities and developments being done on wetlands

- by arresting people who are degrading wetlands

- by denying people permission to carry out any activity in wetlands and waterbodies if they are not safe for them

- by setting strong laws to be passed out in the legislature.

- by carrying out sensitisation of the masses on the dangers of wetland degradation.

47. a) State what happens to the following when water changes to ice:

i) mass: **Mass remains the same**

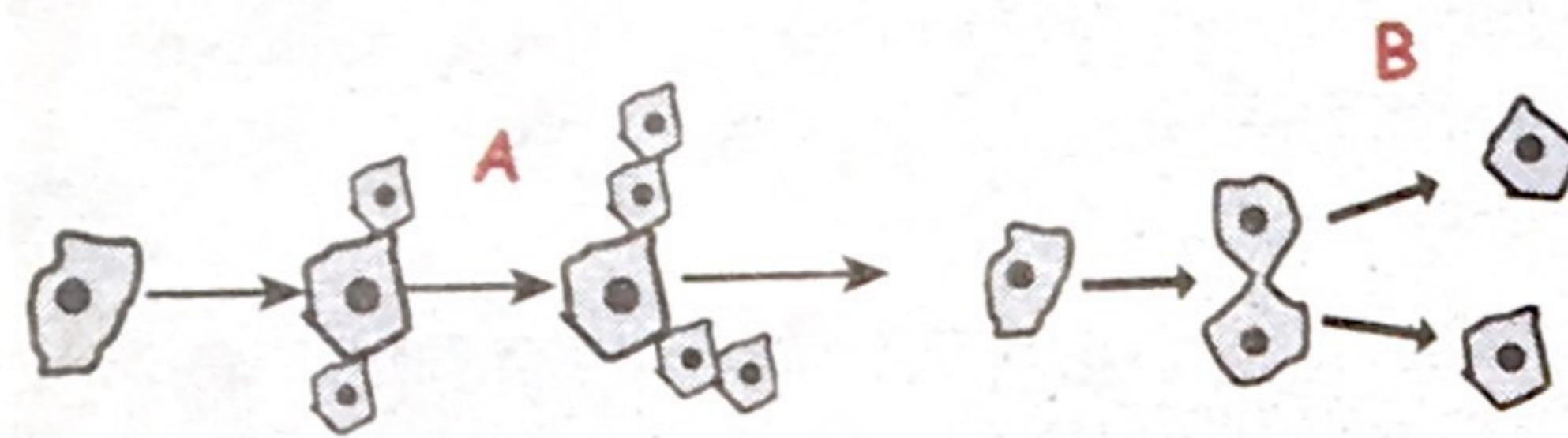
ii) density.: **The density reduces**

b) Name any two instruments used for measuring mass of objects.

- Weighing balance

- beam balance

48. The diagram below shows a common mode of reproduction in organisms. Use it to answer questions that follow.



a) Name the mode of reproduction shown in the diagram labelled A and B

A : Budding

B : Binary fission

b) Identify one organism that reproduces using mode A of reproduction.

Yeast/ corals

c) How is reproduction in living things useful in the environment?

It enables living things increase in number in the environment.

49. a) Which structure in the human heart prevents the deoxygenated blood from mixing with oxygenated blood?

Septum.

b) Mention the main reason why blood is pumped to the lungs.

To be oxygenated or to pick oxygen.

c) Name the chamber of the heart that does the following activities during blood circulation:

i) receives deoxygenated blood from all body parts.

Right atrium.

ii) Pumps blood to all body parts.

Left ventricle.

50. a) Give the meaning of the term 'air pollution'

This is the addition of harmful substances into air or the atmosphere.

b) Mention any one pollutant of air in the environment.

- Industrial smoke

- Fumes from insecticides and pesticides

- Dust

- Smoke from burning cigarettes

c) Apart from air pollution, name any other one type of pollution.

- Water pollution

- Land degradation or pollution

- Noise pollution.

d) Give one way of protecting the environment against pollution.

- By treating industrial smoke before releasing it out

- by fencing small water sources
- by proper use of latrines
- by planting trees in the environment
- by avoiding agriculture at the shores of lakes or rivers or waterbodies
- by swamp reclamation

51. The diagram below shows a type of seed dispersal.

Use it to answer questions that follow.



a) Name the type of seed dispersal shown in the diagram above.

Self dispersal or explosive mechanism

b) State any one way the above fruit is adapted to the mode of seed dispersal shown above.

Their pods can easily split when dry.

c) Name any two advantages of the process shown in the diagram above to the environment.

It prevents extinction of plants in the environment

- it enables plants to colonise other places in the environment

- it prevents overcrowding of plants in one place

52. a) What are health concerns?

These are health problems faced by people in an area and need immediate solution.

b) Which health concern is addressed by the following:

i) growing enough food in a family.

- Poor food supply

- inadequate food.

ii) constructing boreholes in a community.

Poor water supply.

iii) providing dustbins.

Poor sanitation.

53. a) How can a farmer control the following poultry vices?

i) Egg eating. *By debeaking*

- by making laying corners dark

- by picking the eggs regularly

- by feeding the hens on food rich in calcium

- giving birds enough food.

ii) Cannibalism: *By feeding the birds on enough feeds and in time*

- by debeaking
- by hanging green vegetables in the poultry house to keep the birds busy.

b) Give two effects of vices in poultry.

- They reduce the poultry production

- They cause death of the birds

- Lower the quality of products.

54. a) Give two effects of heat on a piece of metal.

- It makes a metal to expand

- It makes the metal hot or increases the temperature of the metal

- It may make the metal soft

- It may cause bending of the metal

b) Mention two advantages of heat transfer by convection in our daily life.

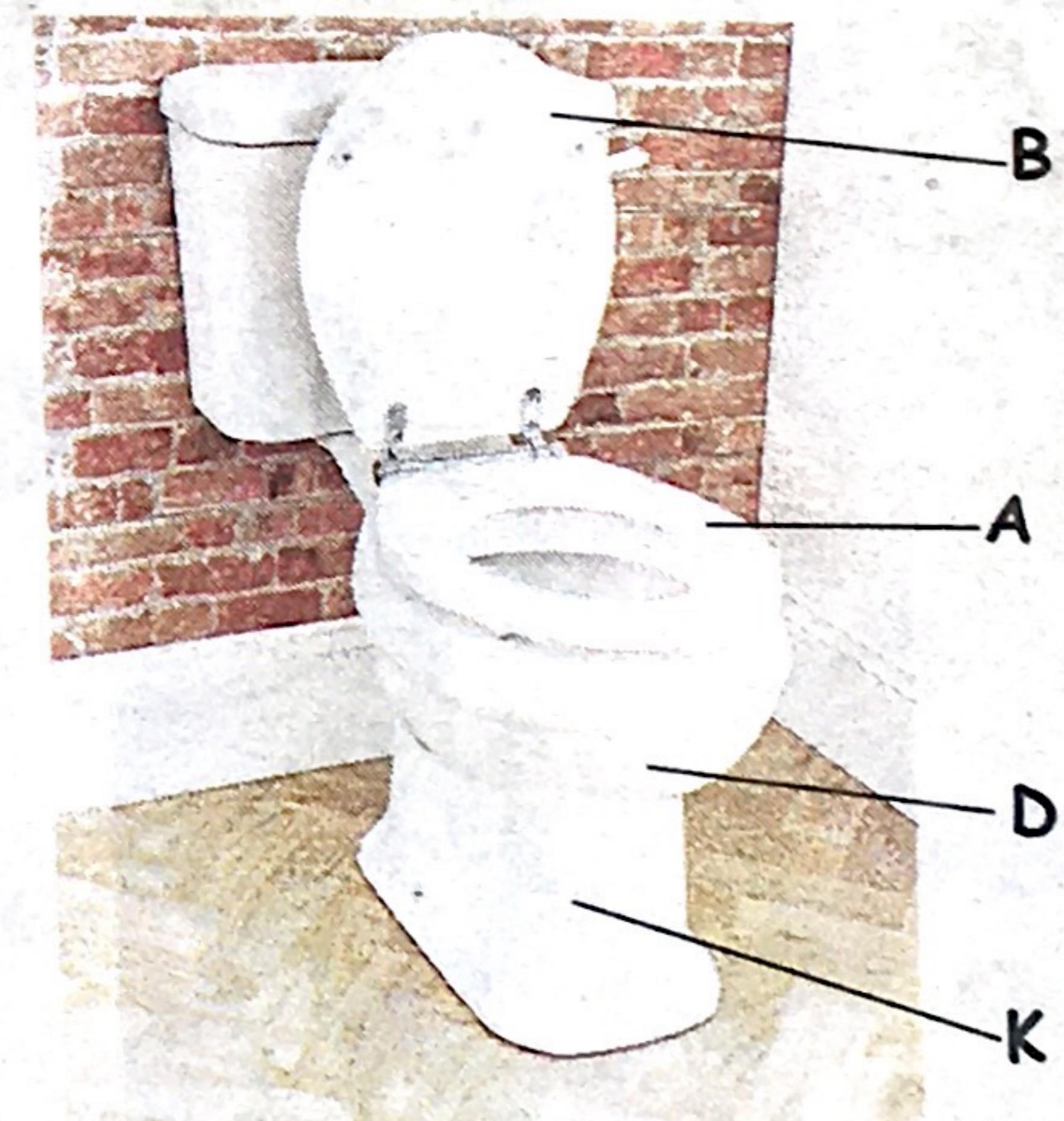
- It enables us to cook or boil liquids

- It helps in proper circulation of air in a house

- It helps to maintain burning in an iron box or cooking stoves

- It helps in draining of smoke from the kitchen using a chimney.

55. The diagram below shows a facility used to promote sanitation at home. Use it to answer questions that follow.



a) Name the parts labelled with letters A and B

A: i) Seat (toilet seat)

B: Toilet cover or lid

b) What is the importance of water that remains at the base of the bowel at part K

It prevents a bad smell from the septic tank from coming out.

c) Mention any two ways of caring for the above facility at home.

By flushing it after using/ by using soft toilet tissues in it to prevent blockage/ repairing all broken surfaces on it/ by mopping or scrubbing its flow/ by removing the cobwebs in the toilet/ by slashing around it to avoid dangerous animals around it