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PLE 2023 Integrated Science marking guide

SECTION A: 40 MARKS

Question 1 to 40 carry one mark each

- 1. Name the type of teeth which develops last in human beings

.....

- 2. Give any **one** way in which timely weeding of crops help to control crop disease.

.....

- 3. Give **one** element of weather which helps plant to make their own food.

.....

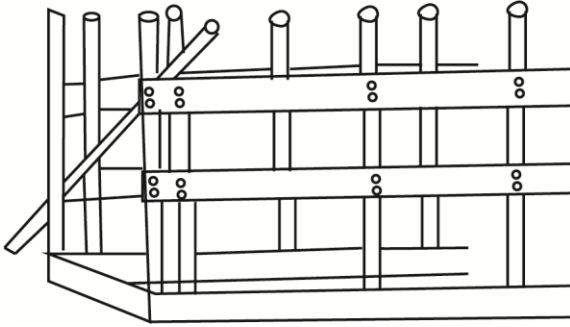
- 4. State the purpose of pressing the belly of a causality of near drowning

.....

- 5. Give any **one** reason why fish are able to live in water

.....

The diagram below shows a structure in a cattle farm. Study and use it to answer question **6** and **7**.



6. Mention any **one** farm activity carried out in the above structure.

.....

7. How is the above structure useful when carrying out the farm activity you have mentioned above?

.....

8. Name the excretory organ that removes water and carbon dioxide from human body.

.....

9. Mention any **one** similarity between fungi and animals in the way they feed.

.....

10. State **one** way in which the screen on the pipe of a VIP latrine helps to control diarrhoeal diseases.

.....

11. State any **one** piece of advice you can give to children to help them prevent indigestion.

.....

12. State any one way in which you can safeguard yourself against smoking.

.....

13. Give the reason why most cooking pans are made of aluminium.

.....

.....

14. State **one** reason why the use of soap makes washing easy.

.....

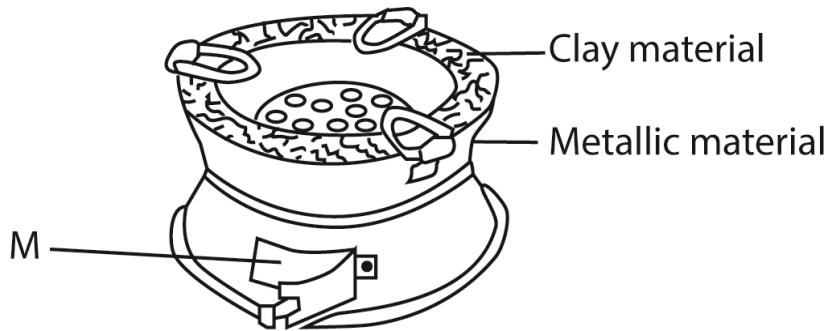
15. Apart from deforestation, mention any **one** other human activity that results into flooding in our environment.

.....

16. Mention any **one** sign of roundworm infestation in humans.

.....

The diagram shows a metallic charcoal stove. Study and use it to answer questions **17** and **18**.



17. Give the function of Part labelled M.

.....

18. State **one** advantage of building the inner wall of the charcoal stove with clay

.....

19. State any **one** disadvantage of people living with domestic animals in the same house.

.....

20. Give one way in which the use of biogas is helpful in conservation of environment.

.....

21. State the effect of opaque objects on a beam of light.

.....
22. Apart from candles, mention any **one** other way in which bee-wax is useful to people

.....
23. State any **one** reason why farmers are encouraged to preserve food stuffs like sweet potatoes.

.....
24. Name any **one** force which a pulley overcomes when being used.

.....
25. State one way in which a mask is important in maintaining the proper functioning of the respiratory system.

.....
26. A part from having bright colours, state any **one** other thing that attracts pollinators to flowers.

.....
27. State any **one** way of caring for simple garden tools.

.....
28. State **one** way in which the Child Health Card is important to a parent

.....
29. State any **one** factor that affects the pitch of sound produced by an object.

.....
30. Name any **one** body part that may be checked during a school health parade.

.....
31. State any **one** way in which screws can be important in our daily life

.....
.....

32. Apart from being a source of food, give the reason why farmers hand green vegetables in poultry houses.

.....
.....

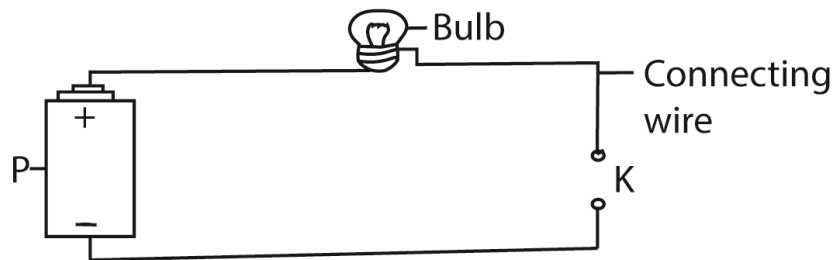
33. State any **one** change in food which shows that food has gone bad.

.....

34. State what would be observed when a plastic pen rubbed in hair is brought close to small pieces of paper

.....

The diagram below represents a simple electric circuit. Study and use it to answer questions 35 and 36.



35. Give the function of P in the circuit.

.....

36. Why would the bulb not light when a piece of glass is used to close K?

.....

37. Name any **one** part of the human body where a gliding joint is found.

.....

38. State any **one** reason why pruning of trees is important in agroforestry.

.....
39. Write down any **one** activity that a School Environment Club can do to protect a school water source.

.....
.....

40. State **one** reason why a person suffering for HIV/AIDS easily attacked by many other diseases.

.....
.....

SECTION B: 60 MARKS

Question 41 to 55 carry four marks each

41. (a) State any **two** effects of rusting on iron sheets

- (i)
- (ii)

(b) Identify **two** ways in which people protect iron sheets from rusting

- (i)
- (ii)

42. The table below shows an example of a farm record. Study and use it to answer the questions that follow.

Date	Health problem	Animal(s) affected	Treatment/control method	Cost of treatment
01/8/2023	Mastitis	Goats No. 4 and No. 8	Antibiotic	17,000/=
12/10/2023	Worm infestation	Kids No.	Dewormers	25,000/=
03/11/2023	Anthrax	All goats	Vaccination	50,000/=

(a) Name the farm record above

.....
(b) Apart from Anthrax, mention any **one** other disease which is controlled by the method used on 03/11/2023

.....
(c) Give any **two** reasons why keeping such a record is important to farmers.

(i)

(ii)

43. (a) Identify the type of soil erosion common in hilly areas.

.....

(b) State any **one** danger of soil erosion to the environment

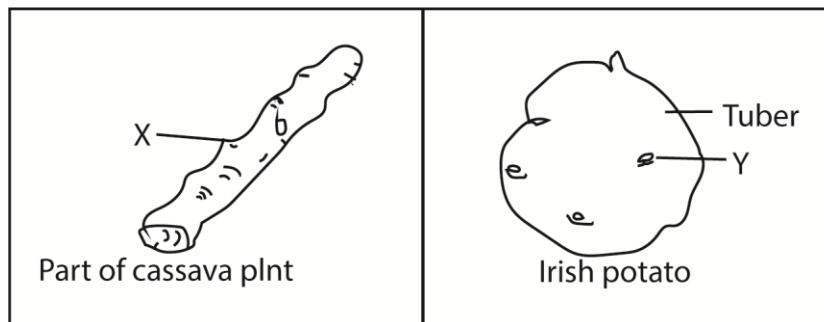
.....

(c) Explain how deforestation cause soil erosion (02 marks)

.....

.....

44. The diagram below show part of a cassava plant and Irish potato that are used in propagation. Study and use them to answer the questions that follow.



(a) Name the part of cassava plant marked X

.....

(b) State the method of vegetative propagation where the part of cassava plant shown above is used.

.....

(c) In which **one** way is the function of part X of cassava plant similar

.....

45. (a) What is meant by the term vulnerable group of people?

.....

(b) Apart from the sick, name **one** other group of vulnerable people in a community.

(i)

(ii)

46. Moses wanted to find the volume of an irregular object. He had the following materials for the experiment; an irregular object, thread. Overflow can and water.

(a) Name **one** material Moses forgot to include on the list of materials.

.....

(b) What is the use of the thread in the experiment?

.....

(c) Describe how Moses will get the volume of the irregular object in this experiment

.....

.....

.....

.....

47. (a) Identify any **one** body change in girls during adolescence

.....

(b) State any two ways in which school boys can help to prevent teenage pregnancies

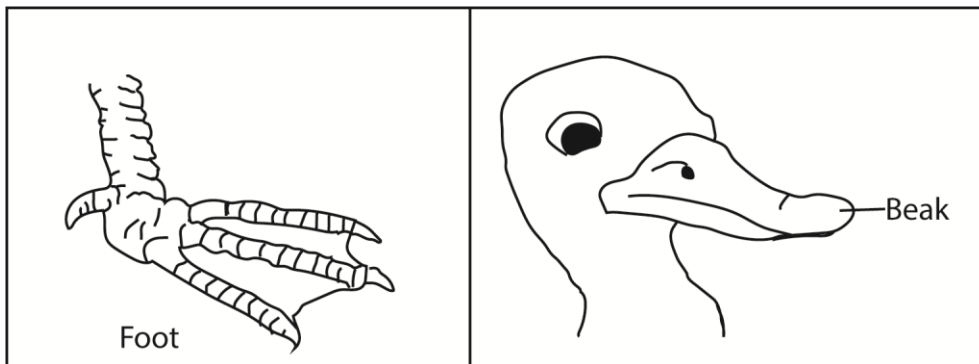
(i)

(ii)

(c) State any **one** way of caring for reproductive system in humans.

.....

48. The diagrams below are of a foot and a beak of a bird. Study and use them to answer the questions that follow.



(a) Identify the group of bird with the type of foot and beak shown.

.....

(b) How do the parts of the bird above help it live well in its environment?

(i) Foot:

.....

.....

(ii) Beak:

.....

.....

(c) Give any one example of a domestic bird with such type of beak and foot.

.....

49. (a) Give any **one** way in which each of the following elements of Primary Health Care (PHC) is important in community.

(i) Food and nutrition:

.....
(ii) Maternal and child Health:.....

.....
(b) Identify any **two** ways of giving health education to community.

(i)

(ii)

50. (a) Apart from planting crops in rows, give another method of planting crops

.....

(b) Give any **two** advantages of planting maize in rows

(i)

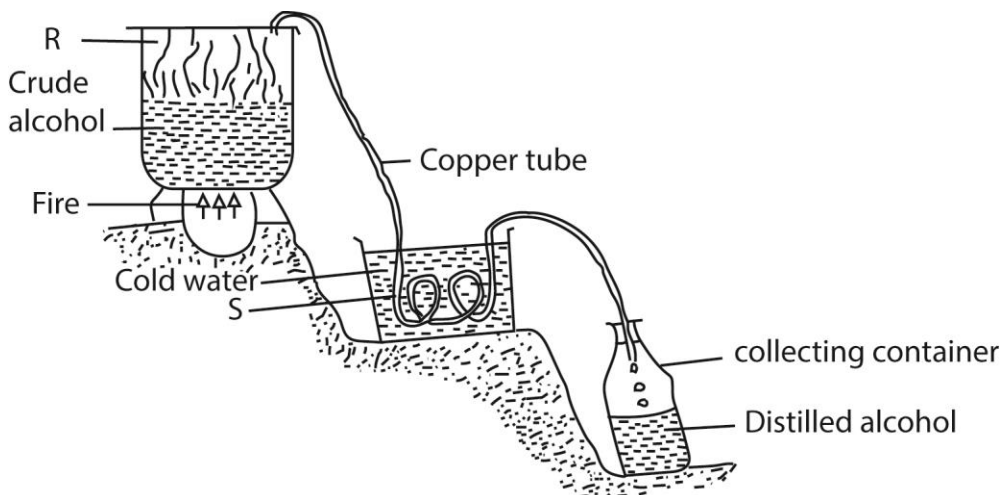
(ii)

(c) State any **one** way in which the use of chemicals on a farm can be dangerous to a crop farmer

.....

.....

51. The diagram below shows the distillation method of making alcohol. Study and use it to answer the questions that follow.



(a) Identify the changes taking place;

(i) At part marked R:

.....

(ii) In part S:.....

(b) Give **one** reason why the container with crude alcohol should be properly sealed

.....

.....

(c) Give the function of the copper tube in the method shown above.

.....

52. (a) State any **two** Health problems that are common in overpopulated areas.

(i)

(ii)

(b) Mention any **two** ways in which collecting information on human population help to address health problems in a community.

(i)

(ii)

53. (a) Give any **two** ways in which plants support human life

(i)

(ii)

(b) Mention any **two** ways in which humans can conserve plant life

(i)

(ii)

54. (a) Identify any **two** characteristics of female anopheles mosquito that makes it a good vector for malaria.

(i)

(ii)

(b) How do the following methods help in controlling the spread of malaria?

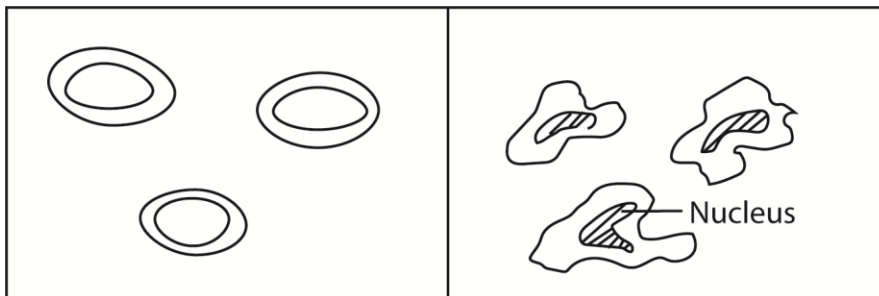
(i) Pouring oil on stagnant water

.....
.....

(ii) Sleeping under a mosquito net

.....
.....

55. The diagrams below show the structures of different blood cells in human body



W

X

(a) Name the blood cell marked X

.....

(b) Give the functions of the blood cells marked:

(i) W

(ii) X

(c) Identify any one disease which destroys blood cells W

.....

Suggested answers

SECTION A: 40 MARKS

Question 1 to 40 carry one mark each

1. Name the type of teeth which develops last in human beings

Third molar or wisdom teeth

2. Give any **one** way in which timely weeding of crops help to control crop disease.

- **Removes pathogens' or pests' host plants**
- **Removes infected plants that would spread infections and pests**

3. Give **one** element of weather which helps plant to make their own food.

Sunlight

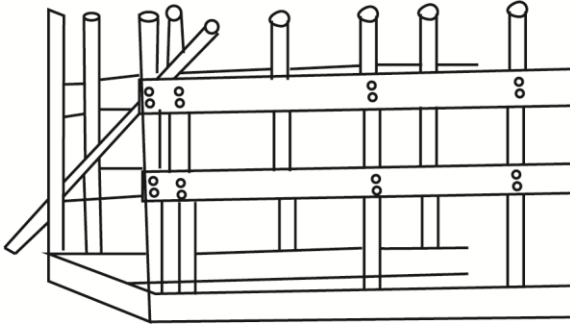
4. State the purpose of pressing the belly of a causality of near drowning

Although it is no longer advisable, it removes air way obstruction

5. Give any **one** reason why fish are able to live in water

- **It has gill for gaseous exchange in water**
- **Has fins for swimming**
- **Has streamlined body for easy swimming**
- **Has smooth scales for protection and easy swimming**
- **Has swimming bladder for buoyancy**

The diagram below shows a structure in a cattle farm. Study and use it to answer question 6 and 7.



6. Mention any **one** farm activity carried out in the above structure.

Dipping

7. How is the above structure useful when carrying out the farm activity you have mentioned above?

Guide cattle into the dip wash

8. Name the excretory organ that removes water and carbon dioxide from human body.

Lungs

9. Mention any **one** similarity between fungi and animals in the way they feed.

They do not make their food or feed on food made by the plants

10. State **one** way in which the screen on the pipe of a VIP latrine helps to control diarrhoeal diseases.

It traps flies that would spread disease causing organism

11. State any **one** piece of advice you can give to children to help them prevent indigestion.

- **Eat slowly**
- **Drink enough water**
- **Avoid fatty foods**
- **Exercise regularly**

12. State any one way in which you can safeguard yourself against smoking.

- **Keep away from smoking peers**
- **Belong to non-smokers**
- **Seek medical assistance**

13. Give the reason why most cooking pans are made of aluminium.

- **Aluminium cooking pans do not rust**
- **Aluminium is non poisonous**

14. State **one** reason why the use of soap makes washing easy.

- **Soap reduces surface tension**
- **Soap forms micelles that trap/stabilize dirt in water from a cloth**

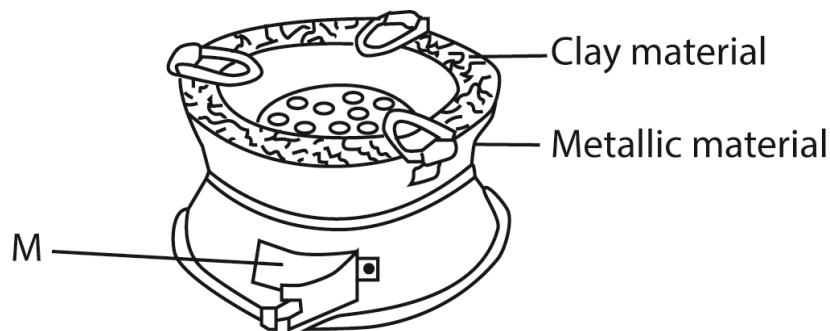
15. Apart from deforestation, mention any **one** other human activity that results into flooding in our environment.

- **Blocking drainage system with rubbish or buildings**
- **Urbanization that increase surface runoff.**
- **Building in swamps**

16. Mention any **one** sign of roundworm infestation in humans.

- **Pot-belly in children**
- **Diarrhoea**
- **Vomiting roundworms**
- **Stool with round worms**
- **anaemia**

The diagram shows a metallic charcoal stove. Study and use it to answer questions **17** and **18**.



17. Give the function of Part labelled M.

Let in air/oxygen

18. State **one** advantage of building the inner wall of the charcoal stove with clay

Conserves heat/reduce heat loss

19. State any **one** disadvantage of people living with domestic animals in the same house.

- **Causes diseases like allergies**
- **Spread parasites like lice, and ticks**
- **Lead Poor hygiene and bad odours**

20. Give one way in which the use of biogas is helpful in conservation of environment.

Reduced rate of deforestation

21. State the effect of opaque objects on a beam of light.

Block light and forms shadow

22. Apart from candles, mention any **one** other way in which bee-wax is useful to people

- **Used in cosmetic**
- **Used in drugs**

23. State any **one** reason why farmers are encouraged to preserve food stuffs like sweet potatoes.

.....

24. Name any **one** force which a pulley overcomes when being used.

- **Gravitational force/weight**
- **Friction**

25. State one way in which a mask is important in maintaining the proper functioning of the respiratory system.

- **Protects from airborne diseases like COVID-19**
- **Protects from air pollution such as dust**
- **Prevent from chemical poisoning in industries**

26. Apart from having bright colours, state any **one** other thing that attracts pollinators to flowers.

Nectar

27. State any **one** way of caring for simple garden tools.

- **Clean them after use**
- **Store them in dry places**
- **Oil moving parts**
- **Sharpen blades**

28. State **one** way in which the Child Health Card is important to a parent

- **Store health records**
- **Reminds parents of immunization schedules**
- **Help patients to monitor child growth**
- **Are presented to schools when required**

29. State any **one** factor that affects the pitch of sound produced by an object.

- **Frequency**
- **Size of object that vibrates such string**
- **Length of object such as string**
- **Tension in string**

30. Name any **one** body part that may be checked during a school health parade.

- **Nails for dirt and length**
- **Teeth and mouth for oral hygiene**
- **Skin for dirt and infections**
- **Hair for scalp conditions and hygiene**
- **Face for hygiene of eyes, nose and ears**

31. State any **one** way in which screws can be important in our daily life

- **Fix furniture**
- **Fix wood on walls**

32. Apart from being a source of food, give the reason why farmers hand green vegetables in poultry houses.

Keep birds occupied and reduces poultry vices such as perking

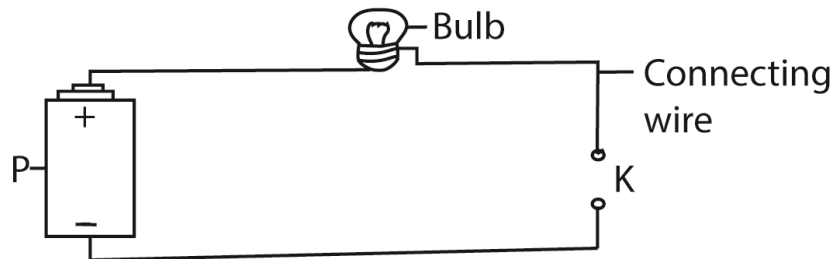
33. State any **one** change in food which shows that food has gone bad.

- **Develops bad smell**
- **Grow moulds**
- **Change colour**
- **Bad taste**
- **Lose texture**

34. State what would be observed when a plastic pen rubbed in hair is brought close to small pieces of paper

It attracts the pieces of paper

The diagram below represents a simple electric circuit. Study and use it to answer questions 35 and 36.



35. Give the function of P in the circuit.

Provides power

36. Why would the bulb not light when a piece of glass is used to close K?

Cuts off current flow because it is a bad conductor.

37. Name any **one** part of the human body where a gliding joint is found.

Wrists and ankles

38. State any **one** reason why pruning of trees is important in agroforestry.

- **Allow light penetration to the plants**
- **Removes diseased branches**
- **Improves air circulation reducing fungal infections**
- **Enhances flowers and fruit production**
- **Removes dangerous branches**

39. Write down any **one** activity that a School Environment Club can do to protect a school water source.

- **Fencing**
- **Proper drainage around the water source**
- **Proper hygiene**

40. State **one** reason why a person suffering for HIV/AIDS easily attacked by many other diseases.

The virus destroys the immune system

SECTION B: 60 MARKS

Question 41 to 55 carry four marks each

41. (a) State any **two** effects of rusting on iron sheets

- (i) **Weakens the sheets reducing durability**
- (ii) **Make them look ugly**

(b) Identify **two** ways in which people protect iron sheets from rusting

- (i) **painting**
- (ii) **galvanizing**

42. The table below shows an example of a farm record. Study and use it to answer the questions that follow.

Date	Health problem	Animal(s) affected	Treatment/control method	Cost of treatment
01/8/2023	Mastitis	Goats No. 4 and No. 8	Antibiotic	17,000/=
12/10/2023	Worm infestation	Kids No.	Dewormers	25,000/=
03/11/2023	Anthrax	All goats	Vaccination	50,000/=

(d) Name the farm record above

Health record

(e) Apart from Anthrax, mention any **one** other disease which is controlled by the method used on 03/11/2023

- **Rabies**
- **Foot and mouth disease**
- **Pneumonia**

(f) Give any **two** reasons why keeping such a record is important to farmers.

- (i) **To monitor the cost of treatment**
- (ii) **To monitor disease management**

- (iii) **To comply with government veterinary regulations**
- (iv) **To monitor effectiveness of drugs used**

43. (a) Identify the type of soil erosion common in hilly areas.

Gully erosion

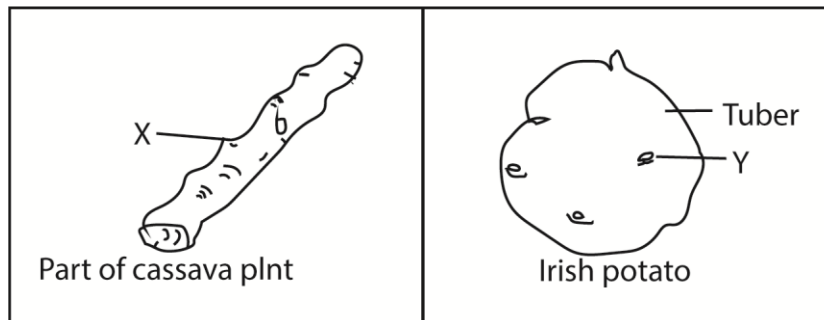
(b) State any **one** danger of soil erosion to the environment

- **Damage roads and building leading to accidents**
- **Cause sedimentation of water bodies**
- **Cause water pollution**

(c) Explain how deforestation cause soil erosion (02 marks)

Removes vegetation cover and increases the force and speed of water to carry top soil

44. The diagram below show part of a cassava plant and Irish potato that are used in propagation. Study and use them to answer the questions that follow.



(d) Name the part of cassava plant marked X

bud

(e) State the method of vegetative propagation where the part of cassava plant shown above is used.

cuttings

(f) In which **one** way is the function of part X of cassava plant similar

Sprout into shoot system and develop roots

45. (a) What is meant by the term vulnerable group of people?

People unable to care for themselves

(b) Apart from the sick, name **one** other group of vulnerable people in a community.

(i) **Elderly people**

(ii) **Infants**

(iii) **People with disabilities**

46. Moses wanted to find the volume of an irregular object. He had the following materials for the experiment; an irregular object, thread. Overflow can and water.

(d) Name **one** material Moses forgot to include on the list of materials.

Measuring cylinder

(e) What is the use of the thread in the experiment?

Lowers irregular object in the can full of water

(f) Describe how Moses will get the volume of the irregular object in this experiment

The irregular object is lowered into a can full of water, the displaced water equal to the volume of the object is measured by a measuring cylinder.

47. (a) Identify any **one** body change in girls during adolescence

- **Breasts develop**
- **Hip and thighs widen**
- **Menstruation occurs**

(b) State any two ways in which school boys can help to prevent teenage pregnancies

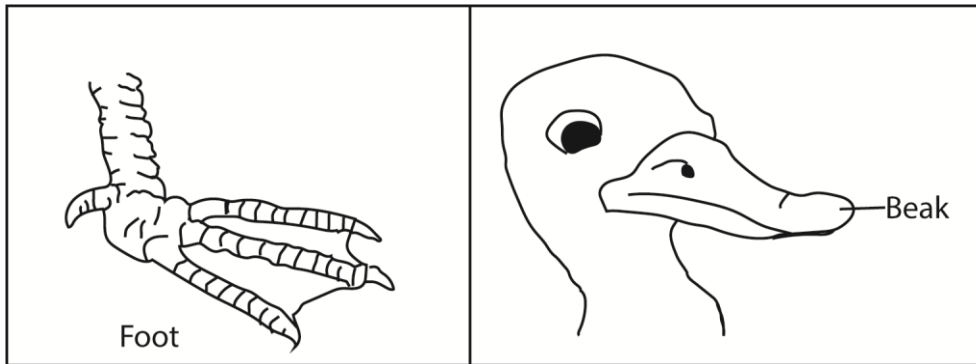
- (i) **Abstain from sex**
- (ii) **Have sex with condoms**
- (iii) **Avoid bad groups**

(c) State any **one** way of caring for reproductive system in humans.

- **Maintain hygiene of reproductive system**

- **Seek medical advice**
- **Eat balanced diet**
- **Exercise regularly**

48. The diagrams below are of a foot and a beak of a bird. Study and use them to answer the questions that follow.



(a) Identify the group of bird with the type of foot and beak shown.

- **Swimming birds**

(b) How do the parts of the bird above help it live well in its environment?

- (iii) Foot: **ease swimming**
- (iv) Beak: **filter food from water and mud**

(c) Give any one example of a domestic bird with such type of beak and foot.

duck

49. (a) Give any **one** way in which each of the following elements of Primary Health Care (PHC) is important in community.

- (i) Food and nutrition: **for proper growth and good health**
- (ii) Maternal and child Health: **reduce mother and child disease and infant mortality rate**

(b) Identify any **two** ways of giving health education to community.

- (iii) **Through health meetings**
- (iv) **Using mass media like radio and television**

50. (a) Apart from planting crops in rows, give another method of planting crops

Scatter method

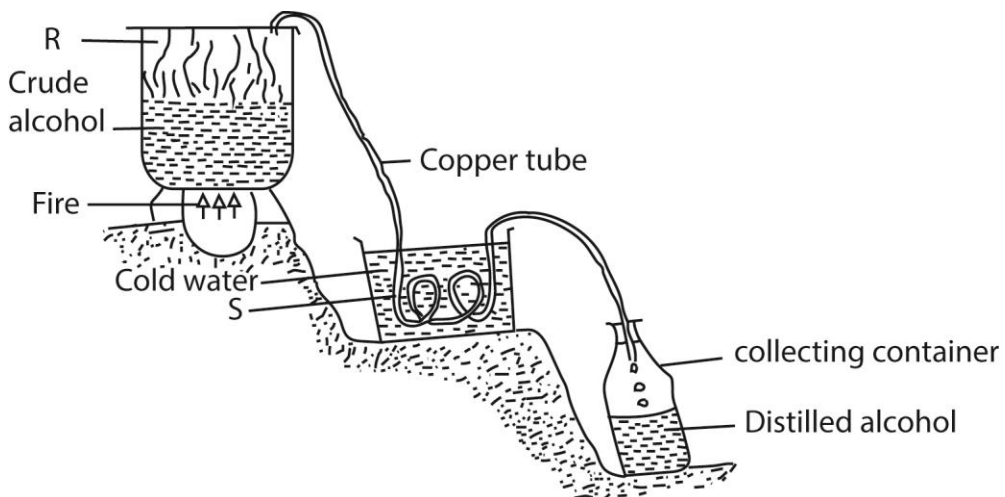
(b) Give any **two** advantages of planting maize in rows

- (i) **Easy weeding**
- (ii) **Easy to irrigate**
- (iii) **Easy to harvest**
- (iv) **Easy for spraying**
- (v) **Maximize use of space**

(c) State any **one** way in which the use of chemicals on a farm can be dangerous to a crop farmer

May be poisonous to animals and people

51. The diagram below shows the distillation method of making alcohol. Study and use it to answer the questions that follow.



(a) Identify the changes taking place;

- (iii) At part marked R: **evaporation**
- (iv) In part S: **condensation**

(b) Give **one** reason why the container with crude alcohol should be properly sealed

To prevent loss of alcohol vapour/to enable all alcohol vapours go through the copper tube for condensation.

(c) Give the function of the copper tube in the method shown above.

Conducts alcohol vapour to be condensed into the liquid and the liquid it collecting container.

52. (a) State any **two** Health problems that are common in overpopulated areas.

- (i) **Poor hygiene**
- (ii) **Malnutrition**
- (iii) **Accidents**
- (iv) **High rate of infections**

(b) Mention any **two** ways in which collecting information on human population help to address health problems in a community.

- (i) **To assess drug needs**
- (ii) **To assess the number of medical professions required**
- (iii) **To determine the number of medical facilities need**
- (iv) **To proper budgeting for medical services**

53. (a) Give any **two** ways in which plants support human life

- (i) **Provide oxygen from photosynthesis**
- (ii) **Provide food**

(b) Mention any **two** ways in which humans can conserve plant life

- (i) **Protect natural habitats**
- (ii) **Reduce pollution**
- (iii) **Irrigate**
- (iv) **Spray pests**

54. (a) Identify any **two** characteristics of female anopheles mosquito that makes it a good vector for malaria.

- (i) **Carry malaria germs**

- (ii) **Can fly from one person to another**
- (iii) **Has piercing mouth parts to deliver malaria germs**
- (iv) **It is a secondary host**

(b) How do the following methods help in controlling the spread of malaria?

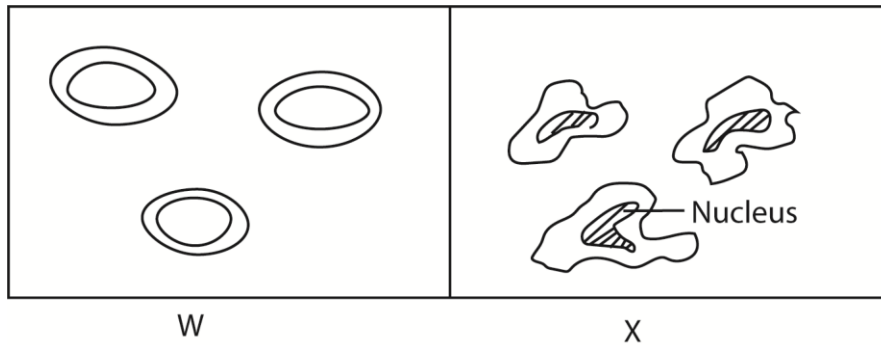
- (i) Pouring oil on stagnant water

Suffocates mosquito larvae

- (ii) Sleeping under a mosquito net

Prevent mosquito bites

55. The diagrams below show the structures of different blood cells in human body



(d) Name the blood cell marked X

White blood cells

(e) Give the functions of the blood cells marked:

- (iii) **W: carry oxygen in blood**
- (iv) **X : fight against disease causing germs**

(f) Identify any one disease which destroys blood cells W

- **HIV viruses**
- **Leukaemia**
- **infections**

Please obtain free notes, exams and marking guides of history, economics, geography ... from digitalteachers.co.ug website.

Thanks

Dr. Bbosa Science.