

KOLFRAM EDUCATIONAL SERVICES KAMPALA



PRE NATIONAL MOCK EXAMINATION 2024

SET FOUR (BLUE PRINT)

INTEGRATED SCIENCE



Time allowed: 2 hours 15 minutes

Index Number:

Random Number						Personal Number		

Candidate's Name:

Candidate's Signature:

School Name:.....

District Name:.....

DO NOT OPEN THIS BOOKLET UNLESS YOU ARE TOLD TO DO SO

Read and follow these instructions carefully:

1. This paper has **two** sections: **A** and **B**. Section **A** has **40** questions and section **B** has **15** questions. The paper has **14** printed pages.
2. Answer **all** questions. **All** answers to both sections A and B must be shown in the spaces provided.
3. All answers **must** be written using a **blue** or **black** ball point pen or ink. Any answer written in pencils other than on graphs and diagrams will **not** be marked.
4. No calculators or **electronic** pens are allowed in the examination room.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
6. Do not fill anything in the table indicated: **"FOR EXAMINERS' USE ONLY"** and boxes inside the question paper.

FOR EXAMINER'S USE ONLY

QN. NO.	MARKS	EX'ER'S INITIAL
1 -10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44- 46		
47- 49		
50- 52		
53- 55		
TOTAL		

Turn Over

© 2024 KESK P7 SCIENCE PRE MOCK SET IV EXAMINATION 2024

Trust Kolfram Educational Services for quality workbooks, companion books, PLE revision workbooks, PLE question Banks, Topical workbooks, Quality Assessments and Holiday packages

SECTION A: 40 MARKS

(Questions 1 to 40 carry one mark each)

1. Mention any one type of poultry.

Chicken/ducks/ pigeons/ doves/ turkeys

Wrong response: layers/ broilers/ dual purpose

These are classes of poultry kept for special purposes

2. What is germination?

Germination is the growing of seed embryo in to a seedling.

Wrong response:

Germination is the growing of seed in to a seedling.

Reason:

During seed germination, only the plumules and radicles develop but not the whole seed.

Plumule and radicles is termed as the Embryo

3. State any one reason why growth is called biological change.

Growth is called biological change because it takes place in the lives of living things.

Wrong response

Growth is called a biological change because it takes place in living things.

4. Give one main source of food

✓ Plants

✓ Animals

Wrong response:

☒ Supermarkets/ markets/ shops/ kitchen

5. How does over cultivation cause soil erosion?

Over cultivation makes soil particles loose and easy to be eroded

Wrong response

Over cultivation leads to leaching/ loss of soil fertility

Leaching/ loss of soil fertility does not cause soil erosion

6. Which property helps the filament to resist high electric pressure?.

☒ The filament is coiled to increase resistance to electric pressure.

☒ The filament is made up of tungsten which has a high melting point.

7. How do tape worms enter our bodies?

Through eating undercooked meat, pork or fish

8. Give any one characteristic of traditional drugs

☒ They are mainly used in raw form.

☒ They have unknown side effect on human health

☒ Their purity and quality normally change.

- ✍ They have no expiry date
- ✍ They are not packed and sealed

9. Why do we cut our fingernails short?

To destroy the hiding places for germs

Wrong response

To avoid eating germs/ to prevent diseases/ to remove germs

We cannot avoid eating germs just by cutting the fingernails short

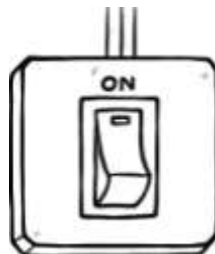
10. Give one reasons why a bulb of a new torch may fail to work

- ✍ When the filament is burnt
- ✍ When the fuse is blown
- ✍ When the bulb is poorly fixed
- ✍ When the dry cells are exhausted
- ✍ When the dry cells are poorly arranged

11. How are Gabon Vipers different from the cobras in term of their mode of reproduction?

- ✍ Gabon vipers reproduce by giving birth to live young ones while Cobras reproduce by laying eggs.
- ✍ Gabon vipers undergo internal fertilization while cobras undergo external fertilization.

12. Study the diagram below and use it to answer the questions that follow



How is the component of electric circuit above important?

It breaks or completes the circuit at a user's wish.

*Reject: It breaks **and** completes the circuit at a user's wish.*

13. Why are bats not considered to be birds

- ✍ They have well developed teeth instead of beaks.
- ✍ They give birth to young ones alive.
- ✍ Their bodies are covered with fur instead of feather.
- ✍ They feed young ones on breast milk from mammary glands.

14. State any one property of friction.

- ✍ Friction produces heat
- ✍ Friction are affected by smooth surfaces
- ✍ Friction increase with increase in weight
- ✍ It increases with the roughness of the rubbing surfaces
- ✍ Friction occurs in all the three states of matter

Turn Over

15. Apart from evaporation, mention one other physical process which helps in rain formation.

Condensation

16. Give any one importance of feather to the birds.

- ✍ They enable birds to fly
- ✍ They give birds shape and colour for easy identification
- ✍ They provide warmth to the birds' body on cold days
- ✍ For sensitivity
- ✍ For courtship purpose
- ✍ For identification
- ✍ They cover and protect the birds' body against injuries

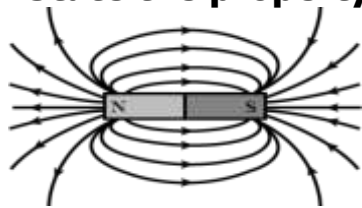
15. Which property of air is demonstrated by children flying kites?

Air exerts pressure

Wrong response

- ✍ Air has weight
- ✍ Air occupies spaces
- ✍ Air moves things

16. State the property of magnet shown below.



Magnetic lines of force run from North pole to south pole

Magnetic lines of force are the lines which indicate the direction of the magnet field around the magnet.

17. State any one reason why bottle milk do not contain antibodies.

- ✍ Antibodies are destroyed when boiling milk.

18. How are pineapples, bananas and sisal propagated?

By use of suckers

19. Name the disorder of digestive system caused by improper chewing of food.

Ingestion

Wrong response: constipation/ choking

Constipation is the digestive disorder caused by lack of water in the food

Choking is not the disorder of the digestive system. Choking affects respiratory system only

20. State any one Device used to reproduce stored sound.

- | | |
|----------------------|-------------------|
| ✍ Radio cassettes | ✍ Grammo phones |
| ✍ Video decks | ✍ Cell phones |
| ✍ DVD players | ✍ Film projectors |
| ✍ Video disc players | ✍ Computers |
| ✍ CD players | ✍ Record players |

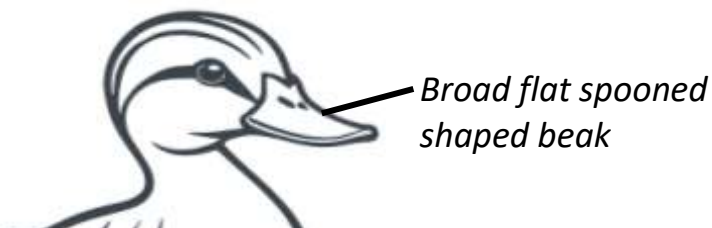
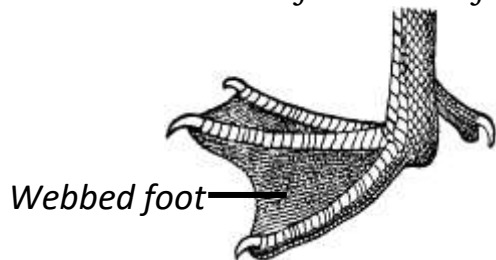
21. How are tentacles important to fresh water snails?

- ✍ The tentacles are used for hearing,
- ✍ The tentacles are used for feeling
- ✍ The tentacles are used for seeing
- ✍ The tentacles are used for smelling
- ✍ The tentacles are used for detecting temperature
- ✍ The tentacles are used for sucking food

22. How are birds like ducks adapted to swimming in water?

They have webbed feet for paddling in water

Illustration of webbed foot and the beak of a duck



Wrong response

- ☒ They have a broad flat spoon shaped beak. This helps in feeding not swimming
- ☒ They are commonly seen in water because they majorly look for food from water

23. Give any one way of controlling diseases without using drugs.

- ✍ Through observing proper hygiene of the body and food
- ✍ Always observe proper sanitation
- ✍ Having a balanced diet
- ✍ Ensuring adequate rest and sleep
- ✍ Ensure good posture.
- ✍ Practicing regular body exercises.

24. State any one advantage of breast feeding to a mother

- ✍ Breast feeding delays the next pregnancy
- ✍ Breast feeding is cheap since no milk is bought.
- ✍ Breast feeding is time saving.
- ✍ Breast feeding improves the health of the mother as she has to eat in order to maintain breast feeding.
- ✍ It bond love between the mother and the child
- ✍ It reduces mothers' chances of getting some diseases like breast cancer

Study the diagram below and use it to answer question 25.



Turn Over

25. Name the type of root shown above

Secondary root

Wrong response: Clasping root

Secondary roots are types of roots which grow from any other part of a plant like the stem and leaves.

Clasping root is an example of secondary root. It is not a type of root.

Other examples of secondary roots are:

- ✍ Prop roots
- ✍ Clasping roots
- ✍ Stilt roots
- ✍ Roots of bulbs
- ✍ Buttress roots
- ✍ Roots of corms
- ✍ Roots of rhizomes

26. How does slashing tall grass near our homes control malaria?

It destroys breeding places of mosquitoes which transmit malaria

Wrong response

☒ It destroys breeding places of mosquitoes which spreads malaria
Mosquitoes do not spread malaria. Malaria are spread by
.....but transmitted by vectors called **female anopheles mosquitoes**

27. Mention the method of deworming in which solid medicines are given to livestock.

Dosing

Wrong response: Dozing

Dozing refers to falling asleep for a while.

28. State any one way of identifying voluntary muscles in the body.

- ✍ They are always attached to the skeleton by tendons.
- ✍ They contract and relax at one's will.
- ✍ They are attached or joined to the bones i.e skeletal muscles.
- ✍ These muscles form the bulk of the body.
- ✍ They operate the functions of the skeleton.

29. Give any one danger of buying drugs from shops or markets

- ✍ Drugs may be harmful or expired.
- ✍ Such drugs are not well prescribed and
- ✍ Drugs may be poorly stored and contaminated
- ✍ They may be spoilt/damaged
- ✍ They may be fake drugs.

30. Write any one natural factor which makes people to lack water in an area.

Drought

Wrong response: flood

Flood cannot cause lack of water but may make water sources dirty

31. State any one ways of increasing volume of blood in circulation.

- ✍ Eating a balanced diet.
- ✍ Eating foods mainly rich in iron e.g. greens, animal liver and kidneys
- ✍ Taking ferrous tablets with advice from a medical worker.

32. Give one characteristics of local breeds of goats

- ✍ They take time to mature
- ✍ They are resistant to tropical diseases
- ✍ They can survive on poor pasture and drought
- ✍ They are resistant to high temperature

33. State one process involved in the distillation of alcohol.

- ✍ Evaporation
- ✍ Condensation

34. What is the main cause of fainting?

Limited supply of oxygenated blood to the brain

Wrong response

Lack of oxygen supply to the brain

Brain does not lack oxygen completely but insufficient amount of oxygen results in to fainting

35. Name the process through which heat is lost from the skin.

Sweating

Wrong response

- Panting: happens in dogs
- Transpiration: happens in plants

36. Mention any one effects of too much fats and oils to body

- ✍ Lack of energy
- ✍ Thinness
- ✍ Feeling cold
- ✍ Vitamin A and D deficiency

37. State any one advantage of washing clothes using hand instead of machines.

- ✍ It is cheap
- ✍ It promotes physical exercises
- ✍ It is environmentally friendly
- ✍ It saves the fabrics against machine damage
- ✍ Dirt and stains are eliminated completely
- ✍ It uses less water and detergents
- ✍ It helps to maximize proper hand hygiene

38. Give any one way poison can be introduced into the body

- ✍ Through food
- ✍ Through air
- ✍ Through animal bites (snakes, rapid dogs)
- ✍ Through injections
- ✍ Through swallowing (orally)

Turn Over

39. Give any one plant that reproduce by means of spores.

Mosses/ ferns/ liverworts

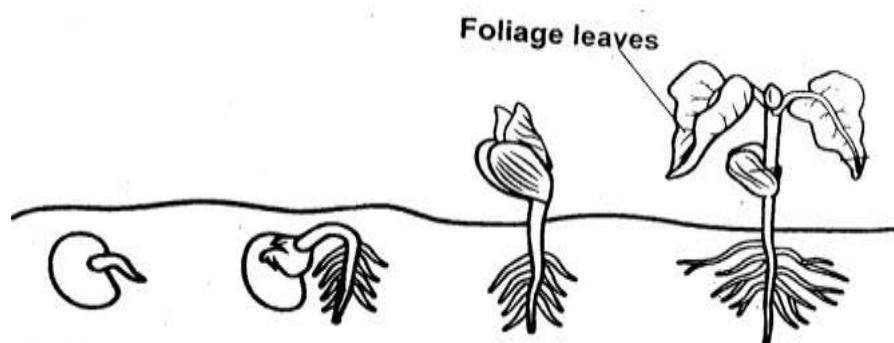
Wrong responses: Mushrooms/ Moses

Mushrooms reproduce by means of spores but they are not plants

Reasons why mushrooms are not plants

- *Mushrooms do not make their own food but feed on dead and decaying matters*
- *Mushrooms lacks chlorophyll*

The diagram below shows stages of germination in bean. Use it to answer questions 40.



40. Name the type of germination illustrated above.

Epigeal germination

Epigeal germination is the type of germination in which the cotyledons come out of the ground

Epigeal germination is common in dicotyledonous plants

SECTION B (60 MARKS)

41. (a) What is the difference between invalids and the convalescents?

Invalids are people suffering from an illness and cannot help themselves while convalescents are people recovering from an illness but still on treatment.

(b) Give any one reason for feeding the sick people on:

(i) Proteins

- Repair worn-out body tissues.
- Replace worn-out body cells.

(ii) Carbohydrates.

To replace the lost energy

(c) Mention any two ways you can take care of your sick siblings in the absence of parents.

- ✍ Encouraging them to take their drugs.
- ✍ Taking them to health centres for treatment.
- ✍ Feeding them on a balanced diet.
- ✍ Bathing them.
- ✍ Giving them extra fluids.

42. Study the diagram below and use it to answer the questions that follow.



(a) Why are treads put on tyres as illustrated in diagram A above?

To reduce frictions

- ✍ *Friction is the force that tends to oppose motion between objects or surfaces which are in contact with one another.*
- ✍ *Friction is the force which acts to oppose the motion between two surfaces as they move over each other.*

(b) How does material B help to control friction?

Material B keeps the moving parts of a machine separated from each other

(c) Name the form of energy produced when the friction is acting between two surfaces.

Heat energy

(d) State any one way of increasing friction.

- ✍ By putting treads on tyres or shoes.
- ✍ Increasing the weight on a surface
- ✍ Putting treads on car and bicycle tyres
- ✍ Putting grips on handles of objects.
- ✍ Putting spikes or studs on playing or sports shoes.
- ✍ Making surfaces of objects rough.
- ✍ Putting tarmac on road surfaces.

43. (a) State any two reasons for carrying out artificial insemination in cattle

- ✍ It controls venereal diseases
- ✍ It controls inbreeding
- ✍ It controls injuries in small cows by big bulls
- ✍ It is cheaper than keeping a bull
- ✍ It improves on the quality of animals
- ✍ It reduces the cost of keeping many bulls on the farm
- ✍ Semen from a dead bull can be used

(b) Give any two disadvantages of artificial insemination

- ✍ Semen may not be available when needed
- ✍ It is only carried out by qualified inseminator
- ✍ Some farmers are not able to detect heat in cows
- ✍ Some animals have silent heat periods
- ✍ Storage of semen is difficult

Turn Over

44. (a) What do you understand by special needs in the community?

These are people with barrier or inability to fully participate in activities done in the community.

(b) State any one example of people with special needs in the community.

The sick, the elderly, the disables, the young, the insane

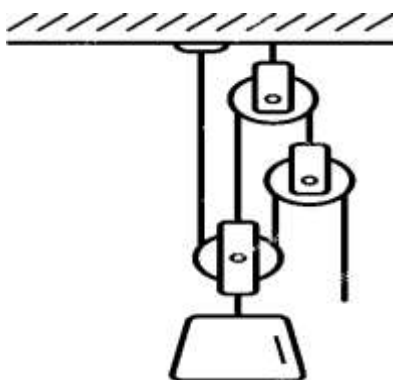
(c) Give any one problem faced by people with Special needs in the community

- ✗ Isolation
- ✗ Stigmatization
- ✗ Social labeling
- ✗ Negligence

(d) Write down one way of caring for people with special needs in a community

- ✗ Provide them with medication
- ✗ Provide them with protection
- ✗ Provide them with food
- ✗ Provide them with guidance and counseling
- ✗ Modify their environment
- ✗ Rehabilitate them

45. Study the diagram below and use it to answer the questions that follow



(a) Name the type of pulley shown above.

Block and tackle pulley

Block and tackle pulleys are pulley system which consists of several movable pulleys and several fixed pulleys

(b) State any two applications of pulleys in our daily life.

- ✗ They are used by break down vehicles to pull stranded vehicles.
- ✗ They are used in lifts / elevators.
- ✗ They are used on cranes to lift and load heavy loads.
- ✗ They are used in scaffolds by painters to paint tall buildings.
- ✗ They are use on flag poles to raise flags at school.
- ✗ They are used in curtain boxes to draw curtains.
- ✗ Pulleys are used in fetching water in deep wells.
- ✗ Pulley is used in hoisting flags on flag poles

(c) State one way of reducing friction in the pulley system shown above.

By oiling the moving part of the machine

By greasing the moving part of the pulley system

46. (a) What is a fracture?

A fracture is a cracked or broken bone in the body

(b) Below is a leg of an injured person. Use it to answer the questions that follow.



(i) Name the type of fracture illustrated above.

Simple fracture

(ii) Give two signs and symptoms of the fracture named in (a) above.

- ✍ The broken bones does not come out of the skins
- ✍ Swelling of the injured part
- ✍ Painful feeling when touching the injured part
- ✍ Unable to put the injured part in the normal position
- ✍ The broken limb appears crooked.
- ✍ Failure to move the fractured part with ease.

47. (a) Give any two characteristics of essential drugs.

- ✍ They should be common and affordable.
- ✍ They cure diseases.
- ✍ They have less side effects
- ✍ They should meet people's health problems.
- ✍ They should have value for money.

b) Mention one factor to be considered before prescribing essential drugs.

- ✍ The age of the patient
- ✍ Weight of the patient
- ✍ Type of illness
- ✍ Sex or gender
- ✍ Duration or length of illness.

c) Why should medical drugs be well prescribed before they are given to patients?

- ✍ It prevents people from taking under dose
- ✍ It prevents people from taking overdose.
- ✍ It helps the patient to avoid drug misuse and drug abuse.

48. (a) What are chemical changes?

- ✓ Chemical changes are changes that cannot be reversed.
- ✓ These are changes which take place and form new substances

Turn Over

(b) Mention any two characteristics of Chemical changes

- ✍ They cannot be reversed (irreversible).
- ✍ They form new substances.
- ✍ Energy is either absorbed or given off
- ✍ There is change in the weight of a substance.
- ✍ They produce heat
- ✍ There is change in mass of an object.

(c) Give any one examples of chemical change which take place in the environment

- | | |
|--------------------------|----------------------|
| ✍ Burning wood to ash | ✍ Weathering |
| ✍ Decomposition/ rotting | ✍ Boiling of an egg |
| ✍ Death | ✍ Respiration |
| ✍ Digestion | ✍ Photosynthesis |
| ✍ Rusting | ✍ Decaying of matter |
| ✍ Fermentation | |

49. (a)Mention the programme which teaches pupils about HIV/ AIDS in schools.

PIASCY/ Presidential Initiative on AIDS Strategy for Communication to the Youth

b) Write any two messages passed on to the pupils during the programme mentioned in (a) above.

- ✍ Abstaining from sex until marriage
- ✍ Learn how HIV is transmitted
- ✍ Pre-marital sex is bad
- ✍ Boys and girls should see each other as friends but not sexual partners.
- ✍ Follow your religion to stay healthy.
- ✍ Stay in school until marriage.
- ✍ HIV damages the immune system
- ✍ People living with HIV and AIDS need care and support
- ✍ Test for HIV and know your status
- ✍ Managing menstruation well
- ✍ You need to understand how your body changes at puberty
- ✍ Sexually transmitted infections make it easier for HIV infections
- ✍ Say No to sex for gifts
- ✍ Life skills help to protect you from HIV.
- ✍ Using violence to get sex is wrong
- ✍ You have the right to say No to forced marriages.
- ✍ Say No to bad touches
- ✍ Choose to delay sex
- ✍ Avoid risky places and risky behaviours

c) Why does the above programme encourage pupils to abstain from sex?

- ✍ To avoid school dropouts
- ✍ To avoid teenage pregnancies

- ✗ To avoid early and forced marriages
- ✗ To avoid the spread of HIV/ AIDS

50. a) State one importance of reptiles to the leather making industries.

- ✗ Reptiles provide raw materials to leather making industries
- ✗ Reptiles provide skins for making leather materials

Wrong response

They promote tourism/ they provide food

(b) State any one reason why chameleons camouflage

- ✗ To protect themselves from enemies
- ✗ To easily get their prey

(c) State how these living organisms protect themselves against dangers:

- ✗ Python: Harden the skin making it difficult to destroy by enemies
- ✗ Dogs and cats: Have sharp incisors to bite the enemies

51. Match the animal in list A to the hearing organ in list B.

Animal	Organ for hearing
Fish	Antennae\ feelers
Snake	Lateral line
Frog	Moist skin
Insects	Tympanum\ eardrum

- a) **Fish:** Lateral line
- b) **Snake:** Tympanum\ eardrum
- c) **Frog:** Moist skin
- d) **Insects:** Antennae\ feelers

(Do not forget to write again the statements after matching them correctly)

52. (a) State any two qualities of a good pigsty

- ✗ It should have a slanting floor
- ✗ It should be well ventilated for free air circulation
- ✗ It should be dry and warm
- ✗ It should have enough space for storage of feeds and water
- ✗ It should be easy to clean
- ✗ It should have leak proof roofs

(b) Mention any two reasons for housing pigs in a piggery farm.

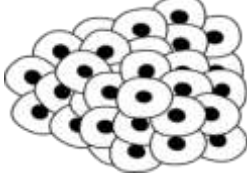
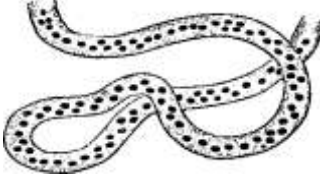
- ✗ It protects the pigs against bad weather.
- ✗ It protects the pigs against predators.
- ✗ To prevent them from destroying crops.
- ✗ Housing prevents easy spread of diseases.

Turn Over

53. Which deficiency disease is characterized by:

- (a) Swollen thyroid gland: **Goiter**
- (b) Bleeding gums: **Scurvy**
- (c) Poor healing of wounds: **Hemophilus**
- (d) Constant hunger: **Marasmus**

54. The table below shows the kind of eggs laid by the amphibians. Use them to answer questions that follow.

Eggs A	Eggs B
	
Eggs in clusters	Eggs in ribbons of spawn

(a) Name the amphibians which lay eggs A in clusters.

Frogs

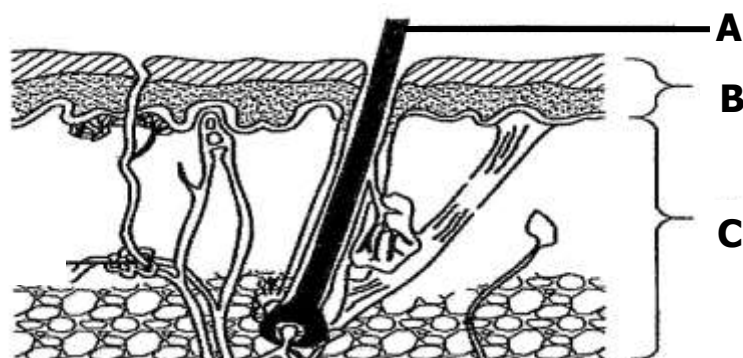
(b) State any importance of jelly like substances found on the eggs of amphibians

- ✍ They protect the eggs against predators
- ✍ They help to hold the eggs together
- ✍ They keep the eggs moist
- ✍ They help the eggs to receive oxygen

(c) Name the breathing organ of animals which lay eggs A:

- (i) **On land:** lungs
- (ii) **In water:** Moist skin/ mouth cavity

55. The diagram below is of a human skin. Use it to answer questions that follow.



(a) Name the layers of the skin marked with letter A and B

(i) **B:** Epidermis

(ii) **C:** Dermis

(b) Give the function of the part labeled A.

Part labeled A is an opening/ pore that leads sweat to the surface of the skin

(c) State any two diseases of the skin.

- | | | |
|------------------|-----------------|------------|
| ✍ Ring worm. | ✍ Leprosy | ✍ Impetigo |
| ✍ Scabies. | ✍ Chicken pox | ✍ Warts |
| ✍ Athlete's foot | ✍ Herpes Zoster | |

Game Over