

THE E-LEARN EXAMINATIONS BOARD



P.6 END OF TERM ONE

2024

INTEGRATED SCIENCE GUIDE

Time Allowed: 2 hours 15 minutes



Index No.	EMIS No.					Personal No.		

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Read the following instructions carefully:

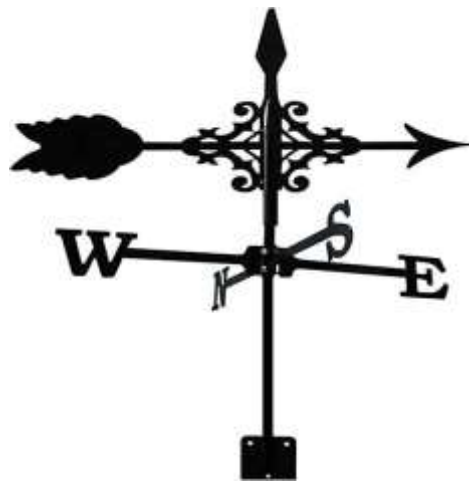
1. Do not forget to write your **school** or **district name** on the paper.
2. This paper has two sections: **A** and **B**.
Section **A** has **40** questions and section **B** has **15** questions. The paper has **12** printed pages altogether.
3. Answer **all** questions. **All** working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
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 EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
TOTAL		

SECTION A: 40 MARKS

Questions **1** to **40** carry one mark each

1. Which part of a seed develops into a shoot system
✓ **Plumule**
2. Apart from ancona, give one other breed of chicken reared for egg production.
✓ **White leghorn//brown egger//Minorca//Golden Comet//Bovans brown**
3. Why is a bat regarded as a warm blooded animal?
✓ **A bat has a constant body temperature**
4. State **one** product obtained from bees wax
✓ **Candles/shoe polish/crayons/chewing gum**
5. How the weather instrument below useful at a weather station?

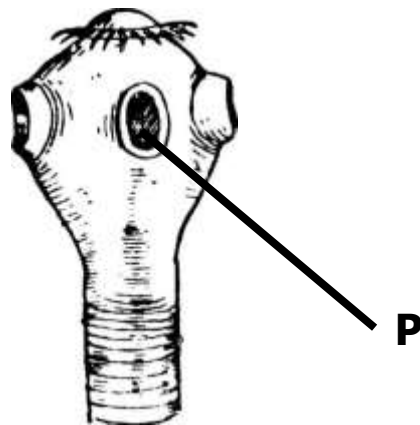


- ✓ **The above instrument shows direction of wind**
6. In which unit is weight measured?
✓ **Newtons**
7. State one importance of cutting short long finger nails
✓ **Reduces hiding places for germs/Destroys hiding places for germs.**
8. Which immunisable disease can be spread through unprotected sex

✓ **Hepatitis B**

9. State **one** sign of marasmus in children
- ✓ **Oldman's face//Muscle wasting**
 - ✓ **Growing thin/Wrinkles/hair loss.**
10. How are enzymes useful during digestion of food>
- ✓ **Enzymes speed up digestion of food**
11. Name the type of teeth that tears food.
- ✓ **Canines**
12. Why does sand soil drain water easily?
- ✓ **Sand soil has large spaced particles/has rough particles**
13. How is a rack useful in a home?
- ✓ **A rack helps in drying utensils.**
14. Why is sound regarded as a form of energy
- ✓ **Sound enables man to do work**
15. By what process is dew formed at night?
- ✓ **Condensation**

The diagram below is of a tape worm. Study and use it to answer question 16 and 17.



16. What does the above worm feed on?
- ✓ **Digested food**
17. How is part P important to the above worm?

✓ **Part P helps in attachment of tapeworm to the host intestines.**

18. How is propagation of sweet potatoes different from that of Irish potatoes?

✓ **Sweet potatoes are propagated by planting vines while Irish potatoes are propagated by planting the tubes.**

19. Which vector spreads yellow fever to people?

✓ **Aedes mosquito**

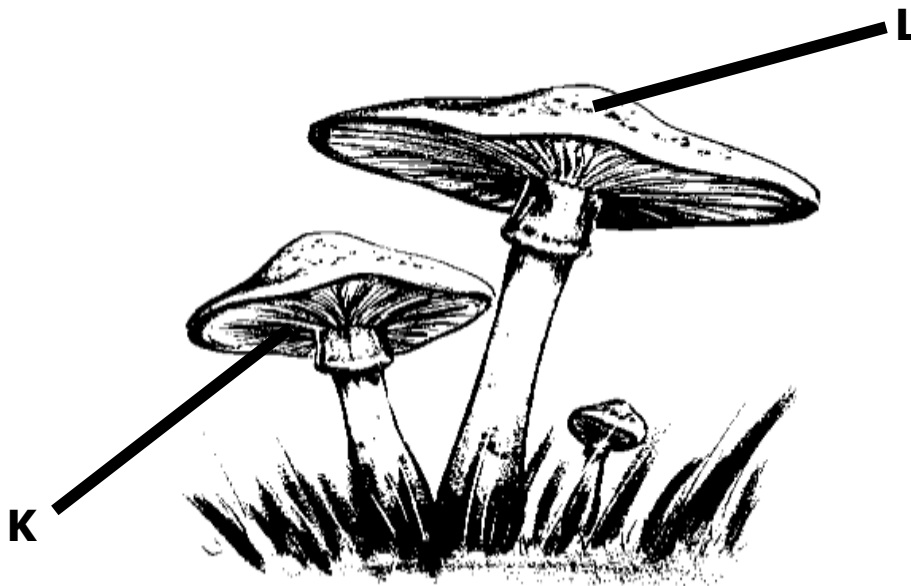
20. Name the method of heat transfer that helps in lighting a charcoal stove.

✓ **Convection**

21. How is iodine solution useful during first aid administration?

✓ **Kills germs/Cleaning wounds**

The diagram below is a mushroom. Study and use it to answer questions 22 and 23.



22. Name part marked K

✓ **Gills**

23. What is the use of part L to a mushroom?

✓ **Part P protects the gills from damage**

24. Why do birds have streamlined bodies?
✓ **To overcome friction in air**
25. Identify any **one** biological change in animals.
✓ **Growth/reproduction/moulting**
26. How does paddock grazing method control tick borne diseases in goats and sheep?
✓ **Paddock breaks the life cycle of ticks/paddock starves ticks.**
27. Why should pregnant women feed on food rich in proteins?
✓ **Proteins enables proper growth of a foetus in the womb/repairs worn-out body tissues.**
28. State any **one** role of a school health committee.
✓ **Prepares health campaigns, checks cleanliness of school/environment/conducts health parades/organizes health talks**
29. Name the poultry disease that causes tiny wounds on the combs, wattle and mouth of a chicken.
✓ **Fowl pox**
30. Name the part of a bean plant that has similar function to gills of a tadpole.
✓ **Stomata**
31. Apart from centrifuging method, state **one** other method of extracting honey
✓ **Floating the wax method/Pressing honey the method**
32. How is the garden tool below useful in a farm?



✓ **The above tool helps in harvesting cereals**

33. Give **one** example of a floating object

✓ **Polythene paper/Plastic bottles/Dry leaves/feathers**

34. Why should crops be dried before storing them?

✓ **To prevent them from rotting**

35. Why should vaccines be stored in a refrigerator?

✓ **To maintain their strength/To prevent the vaccines from getting spoilt/To keep their constant value**

36. How useful is a blubber to sea mammals?

✓ **Blubber keeps sea mammals warm**

37. Name the digestive juice produced by the liver.

✓ **Bile**

38. Name the component of air used in preservation of soft drinks.

✓ **Carbon dioxide**

39. How does the regular use of pesticides affect the soil?

✓ **Regular use kills soil organisms/destroys soil structure**

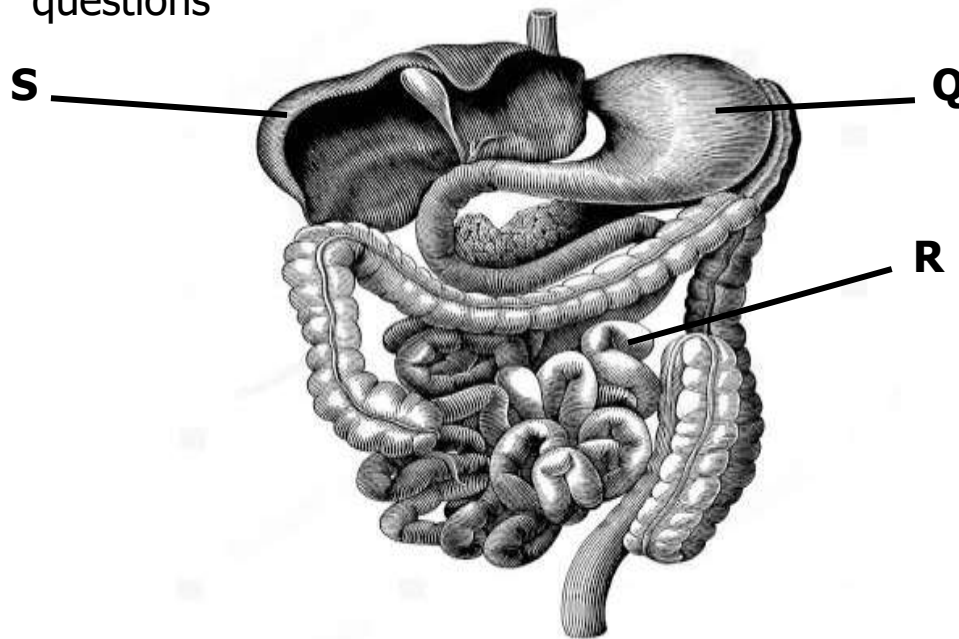
40. Give any **one** sign which shows that the baby is dehydrated

✓ **Sunken eyes/little or no urine/Sunken fontanelle/A pinch on the skin goes back slowly**

SECTION B: 60 MARKS

Questions **41** to **55** carry four marks each

41. The diagram below is of a digestive system. Use it to answer questions



- a) Name the part marked S
 - ✓ **Liver**
- b) State **one** important activity that takes place in part R
 - ✓ **Absorption of food**
- c) Why is chemical digestion not possible at part Q?
 - ✓ **There is no enzyme present at part Q.**
 - ✓ **Due to absence of enzymes**
- d) Give **one** digestive disorder of the above system.
 - ✓ **Constipation//indigestion//intestinal obstruction//vomiting**

42. Match the following correctly

A

Mulching

Pruning

Weeding

Gap filling

B

maintains right number of plants in the garden

keeps water in the soil

reduces weight of the plant

reduces competition for nutrients.

Mulching

keeps water in the soil.

Pruning

reduces weight of the plant.

Weeding

reduces competition for nutrients.

Gap filling

**maintains right number of plants in .
the garden**

43. (a) Why are poultry vices common in deep litter system?

✓ **Due to overcrowding of birds.**

✓ **When there is a lot of congestion in the deep liter house.**

(b) State two materials used as litter in poultry keeping

✓ **Coffee husks/ /Wood shavings.**

✓ **Old newspapers**

(c) State **one** advantage of deep liter system over free range system of keeping poultry.

✓ **Birds are protected from bad weather**

✓ **More birds can be kept than in free range system**

✓ **Egg collection is easier than in free range system.**

44. (a) Name the female reproductive cells in flowers

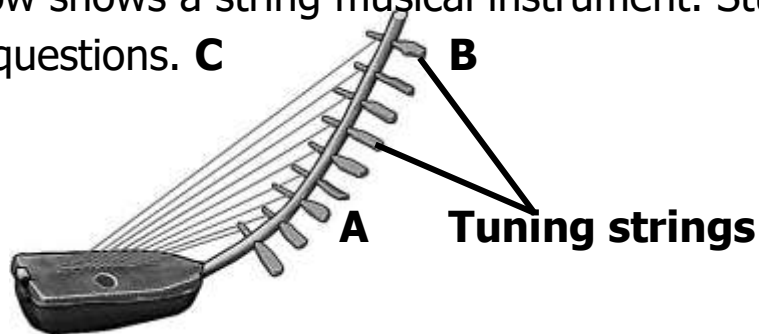
✓ **Ovules**

(b) Which system of flowering plant is found underground?

✓ **Root system**

- (c) Apart from wind, give one agent of pollination
 ✓ **Insects/bats/Sunbird/Humming bird/flowing water**
- (d) How are stems important to a plant?
 ✓ **Some stems make food**
 ✓ **Stems hold leaves in position for easy trapping of sunlight**
 ✓ **Stems hold flowers for easy pollination**
 ✓ **Some stems store food**

45. The diagram below shows a string musical instrument. Study it and use it to answer questions. **C**



- a) Which string will produce sound of the highest pitch?
 ✓ **String A**
- b) Give a reason to support your answer in (a) above
 ✓ **String A has the smallest vibrating surface**
- c) Apart from bow harp, give one other string musical instrument
 ✓ **Guitar//Viola/Violin//Lyre**
 ✓ **Tube fiddle//Zither**
- d) How can P6 children play the above instrument to produce sound?
 ✓ **Plucking strings to produce sound**
 ✓ **For tube fiddle//viola/violin, bowing the strings to produce sound**
46. (a) Which element of PHC helps in child spacing?
 ✓ **Family planning**
- (b) How are health parades important in a school?

- ✓ **A health parade helps children learn how to bathe/Comb hair/brush teeth**
- (c) How is primary health care program important in a community?
 - ✓ **PHC programs promote good health.**
 - ✓ **They help to prevent disease out breaks/controls vectors in our community.**
 - ✓ **They improves on health standards.**
- (d) State one principle of PHC
 - ✓ **Health services should be acceptable.**
 - ✓ **Health services should be accessible.**
 - ✓ **Full community participation.**
 - ✓ **Prevention other than cure.**
 - ✓ **Health should be available.**

47. Complete the table below correctly

Food values	Deficiency disease	Use
Proteins	Kwashiorkor	Body growth
Iron	Anaemia	Blood formation
Vitamin D	Rickets	Keeps bones and teeth strong

48. (a) How are the following teeth adapted to their function
- i) Canines
 - ✓ **Canines are sharp and pointed.**
 - ii) Molars
 - ✓ **Molars have cusps/Rough ridged surfaces**
- (b) How does brushing teeth prevent tooth decay?
- ✓ **Brushing kills germs hiding in teeth.**
 - ✓ **Removes food remains which harbour germs.**

(c) Apart from brushing teeth, state one way of caring for the teeth

- ✓ **Rinsing mouth with clean water.**
- ✓ **Dental flossing.**
- ✓ **Avoid climbing trees//Avoid rough games**

49. (a) Write down one example of each of the following

i) Pouched mammal

- ✓ **Kangaroo/koala bear**
- ✓ **Wallaby//Wombat//Tasmanian devil**

ii) Carnivore

- ✓ **Cat//dog//lion//tiger//leopard//cheetah**

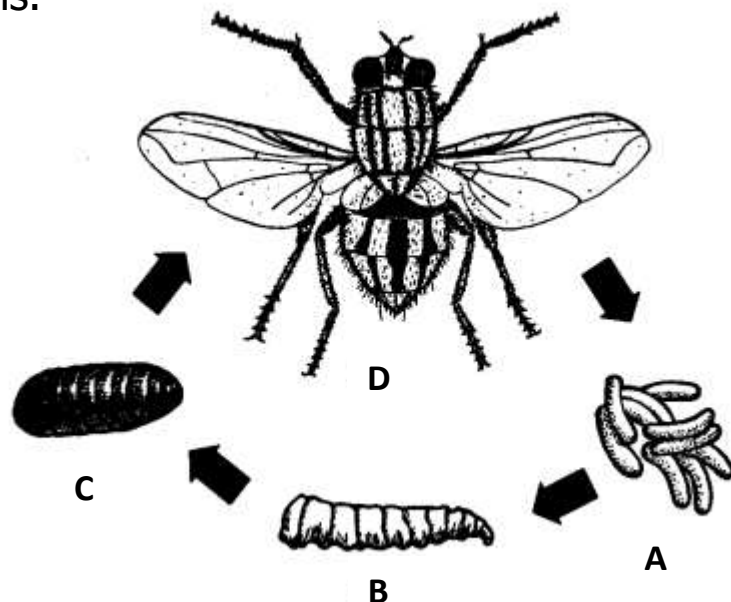
iii) Monotreme

- ✓ **Duck-billed platypus//Spiny ant eater (Echidna)**

(b) State any **one** characteristic of mammals

- ✓ **Have mammary glands/have fur on their bodies.**
- ✓ **They undergo internal fertilization.**
- ✓ **They are warm blood.**

50. The diagram below is a life cycle of a housefly. Use it to answer questions.



a) Name the stage marked C.

✓ **Pupa**

b) How is stage marked B useful to people?

✓ **It reduce volume of faeces in pit latrine.**

✓ **It help in decomposition of organic matter.**

c) How is stage D able to spread diseases to people?

✓ **It uses hairy body to carry germs.**

d) Why is stage A regarded as a dormant stage?

✓ **State A doesn't feed**

51. (a) How do bacteria reproduce?

✓ **Bacteria reproduce by cell division//Binary fission**

(b) State two ways bacteria are useful to people

✓ **Bacteria in intestines help in digestion of food.**

✓ **Help to reduce volume of faeces in pit latrines.**

✓ **Bacteria help in rotting. (Decomposition)**

(c) Give one factor that favours the multiplication of bacteria

✓ **Food/Oxygen//warmth//moisture**

52. (a) Why is rusting regarded as a chemical change?

✓ **Rusting forms a new substance//Rusting cannot be reversed**

(b) State one characteristic of physical changes

✓ **Heat is either lost or gained.**

✓ **No new substance formed//they are reversible**

(c) How are chemical changes similar to biological changes?

✓ **Both form new substances/Both are irreversible.**

(d) How is rusting as a chemical change important to the soil?

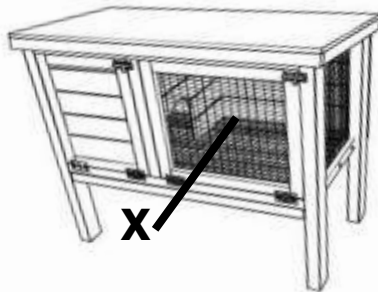
✓ **Rusting adds iron into the soil.**

53. (a) State **two** ways of keeping the environment clean.

✓ **Sweeping//Cleaning tall bushes.**

- ✓ **Picking rubbish.**
- ✓ **Proper disposal of human wastes/burning rubbish**
- (b) State one way how germs spread
 - ✓ **Sharing clothes//Bed bugs//through air//animal bites//insect bites//through body contact**
- (c) How is rotting useful in the environment?
 - ✓ **Rotting reduced bad smell/Reduces organic matter (decaying matter)**

54. Below is a hutch. Study it and use it to answer questions.



- a) Name the above type of hutch
 - ✓ **Caged hutch**
 - b) How is a hutch important to a rabbit?
 - ✓ **Protects rabbits from bad weather/predators/disease vectors/parasites.**
 - c) Why is part X made of a wire mesh?
 - ✓ **To allow free air circulation**
 - d) State one quality of a good hutch
 - ✓ **Should have a roof/have a wire mesh/Raised one metre above the ground**
55. (a) Why do farmers carry out docking in sheep rearing?
- ✓ **To ease mating**
- (b) Which sheep product is used in textile industry?
- ✓ **Wool (Fleece)**
- (c) Name one product obtained from goats

✓ **Meat/Milk/Mohair/hooves/skin**

(d) How can farmers improve on the product of goats and sheep on their farm?

- ✓ **Through cross breeding.**
- ✓ **Through carrying out selective breeding.**
- ✓ **Through proper feeding.**

END