

THE E-LEARN EXAMINATIONS BOARD



P.7 BEGINNING OF TERM TWO

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. Give a reason why a sugarcane is not called a stem tuber, yet it stores its food in the stem

✓ **It does not store food in swollen underground stem**

2. Mention the type of friction birds are likely to overcome due to their streamlined shape.

✓ **Viscosity friction**

3. Name **one** solute used in preparation of ORS locally

✓ **Sugar // Salt**

4. What name is given to animals that provide labour to people?

✓ **Burden of beast**

5. In which state of matter is water at 100°C

✓ **Gaseous state**

6. Mention the type of soil erosion that is controlled by contour ploughing

✓ **Gully erosion**

7. Give a reason why the ball and socket joint is called so.

✓ **The ball shaped end of one bone fits in the socket shaped end of another bone.**

8. Of what importance is “**air exerts pressure**” to a crop farmer?

✓ **It helps a farmer to spray crops in the garden using a knapsack**

9. Give any **one** example of an egg laying mammals.

✓ **Spiny anteaters // duck billed platypus**

10. Name any **one** example of a natural magnet

✓ **Lodestone // the earth**

11. Apart from carbohydrates, give any **one** other food value that provides the body with energy

✓ **Fats and oils**

12. How are strains different from sprains?

✓ **Strains are torn tendons while sprains are torn ligaments**

NB: The answer must be in plural

13. Identify the process represented by letter J.

Ovulation → **J** → Conception → Implantation

✓ **J - Fertilization**

14. Why do we wash hands after eating food?

✓ **To remove the remaining food particles**

15. Why is the percentage of nitrogen inhaled remains constant like the **one** exhaled?

✓ **They are neither produced nor used in the body.**

16. The diagram below is of a bean seed, use it to answer question 16

Give the importance of part X during germination

✓ **It lets in oxygen and water**

17. Name the part of the human ear that serves the same function like an amplifier of a musical instrument

✓ **Ossicles**

18. Give the reason why it is easier to control HIV/AIDS than malaria.

✓ **It is easy to abstain from unprotected sex than abstaining from mosquito bites**

19. Mention any **one** way farmers can control inbreeding of their cattle form

✓ **By castration // By using artificial insemination**

20. Name the types of venation possessed by plants with root nodules.

✓ **Network leaf venation**

21. Write VHT in full as related to health service provision in an area
- ✓ **Village Health Team**
22. Name the "PIASCY" message which can act as a family planning method
- ✓ **Abstinence // Abstain from sex**
23. Mention the deficiency disease characterized by bleeding of gums and poor healing of wounds.
- ✓ **Scurvy**
24. Give a reason why distilled water is not used to conduct electricity.
- ✓ **Distilled water does not contain mineral salts.**
25. Give the reason why ventilators, are put above, the windows.
- ✓ **Ventilators let out warm air which is less dense than cold air**
26. How does wind as an energy resource help to dry people's clothes?
- ✓ **Through increasing on the rate of evaporation.**
27. Apart from using weather instruments, how else can people tell the direction of wind

✓ **Movement of objects in the environment**

28. Write **one** method of preserving food that involves dehydration.

✓ **Sun drying // Smoking // Salting**

29. State the importance of the gas that is produced by plants in the environment during photosynthesis.

✓ **It is used in fire extinguishers to stop fire**

✓ **It is used in preservation of soft drinks**

30. What is the major cause of short circuit?

✓ **When two naked wires carrying current meet**

31. Give **one** example of a bird with half webbed feet with long legs

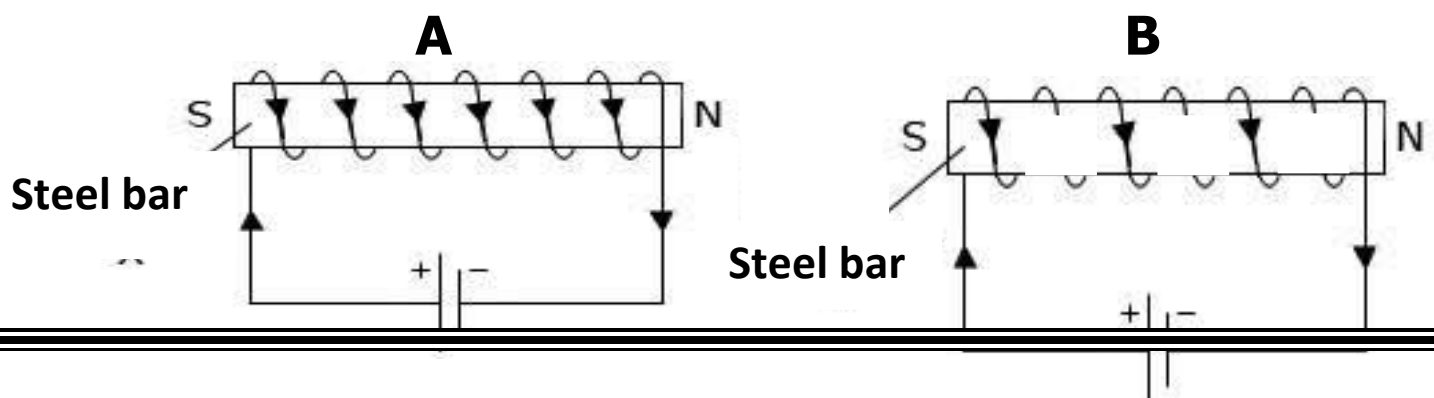
✓ **Heron // Flamingo // Crested crane**

32. Name the alloy used to fill cavities in our teeth.

✓ **Dentist amalgam**

The diagram below shows a method used to make magnets.

Use it to answer question 33 and 34.



33. Which of the above methods produces the strongest magnetism?

✓ **Method A**

34. Give, a reason to support your answer.

✓ **Method A has more turns on the coil than method B**

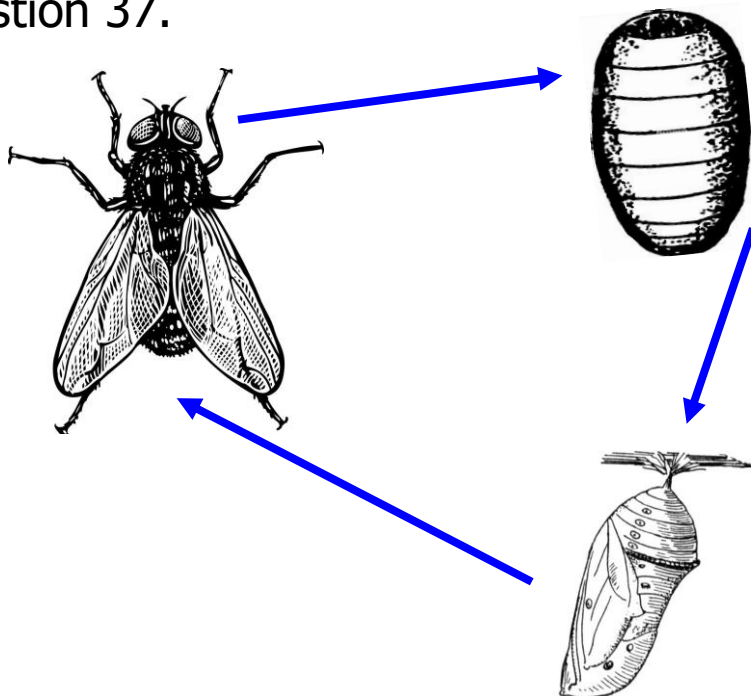
35. How does the epiglottis prevent food from entering the trachea?

✓ **Through closing the trachea during swallowing of food.**

36. Which type of electricity is produced by a generator?

✓ **Thermal electricity**

The diagram below is a life cycle of an insect. use it to answer question 37.



37. Name the type of life cycle possessed by the insect.

✓ **Complete metamorphosis // Complete lifecycle.**

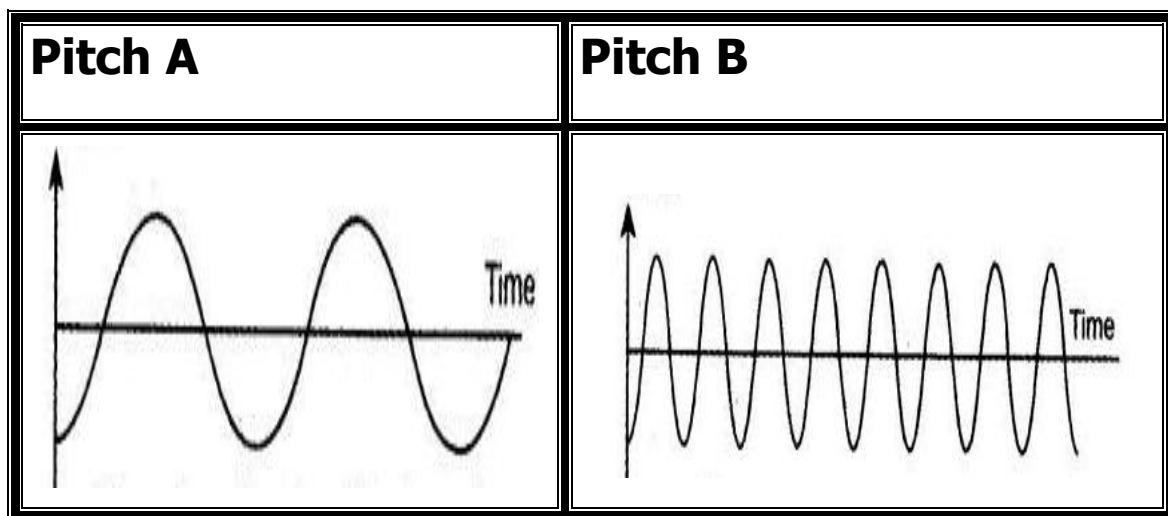
38. Give a reason why the youth are more vulnerable to contracting HIV/AIDS .

✓ **the youth are more sexually active**

39. Why does the heart beat faster after performing a Vigorous activity?

✓ **To supply more food and oxygen to the body muscles.**

40. The diagrams below show **two** different pitches use it to answer the question below



i) Name pitch B.

✓ **High pitch**

SECTION B

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

41. (a) Name the part of a movable joint that serves the same function like that of synovial fluid

✓ **Cartilages**

- (b) What do we call the process by which cartilages form into bones?

✓ **Ossification**

- (c) How does Vitamin D help in the formation of strong bones?

✓ **Through increasing the absorption of calcium into the bones**

- (d) Give **one** example of a long **bone** in the arm.

✓ **Humerus // radius // ulna**

42. (a) Name the deficiency diseases characterized by persistent hunger old man's face.

✓ **Marasmus**

- (b) Give the best way of preventing the disease mentioned in above

✓ **Feeding on foods rich in carbohydrates**

- (c) Give **two** examples of mineral deficiency diseases.

✓ **Anaemia // Goitre**

43. (a) The table below shows an important document used on a poultry farm. Use it to answer questions that follow

Date	Disease Vaccinated	No of birds	Sign
12/3/2024	Coccidiosis	30	Dr. Bakule Secratz
16/3/2024	Newcastle disease	38	Dr. Kiggundu

a)What name is given to the above farm record?

✓ **Health records**

b)What causes the disease that was immunized on 12/3/2024?

✓ **Protozoa**

c) Apart from the disease vaccinated by Dr. Kiggundu, give any **one** other disease caused by the same germ

✓ **Gumboro // Avian leucosis // Fowl pox**

d)Give any **one** other record that can be used on a poultry farm apart from the **one** mentioned in 43 (a) above

✓ **Flock records//Feed records //Production records**

44. (a) What is germination?

✓ **Germination in the development of a seed embryo into a seedling**

(b) Name the type of germination possessed by groundnuts.

✓ **Epigeal germination.**

(c) Why does the radicle come out first during germination?

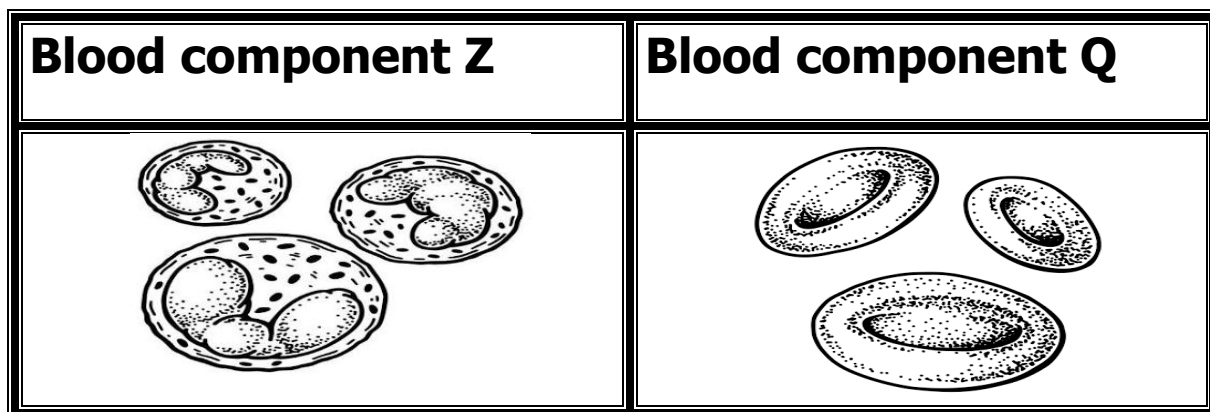
✓ **To absorb water and mineral salts from the soil**

(d) How is germination similar to rusting?

✓ **Both need oxygen and moisture to occur.**

NB. Reject oxygen only or moisture only

45. Study the diagrams below and answer questions about them



a) Name the component of blood marked **Q**

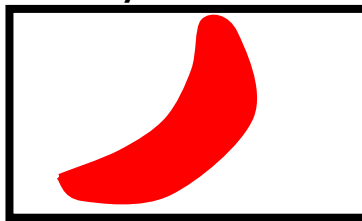
✓ **Red blood cells**

b) How does blood component Z perform its duty of defending the body against diseases?

✓ **By engulfing the germs**

✓ **By producing antibodies against germs**

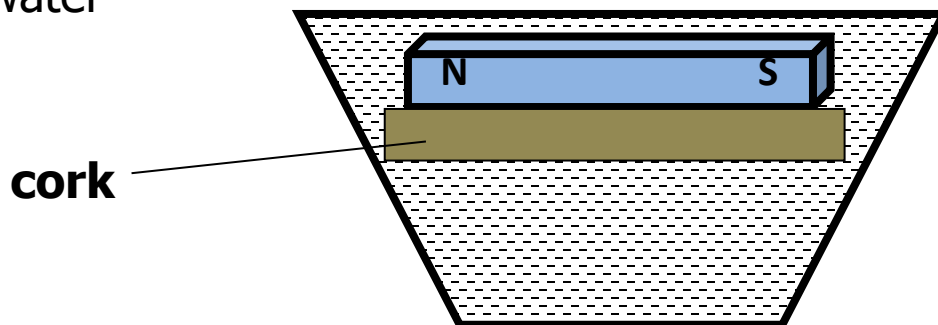
c) Draw a diagram to show how blood component **S** will appear after being attacked by sickle cell anemia.



d) Why should adolescent girls be given food rich in iron?

✓ **To replace the Lost blood during menstruation**

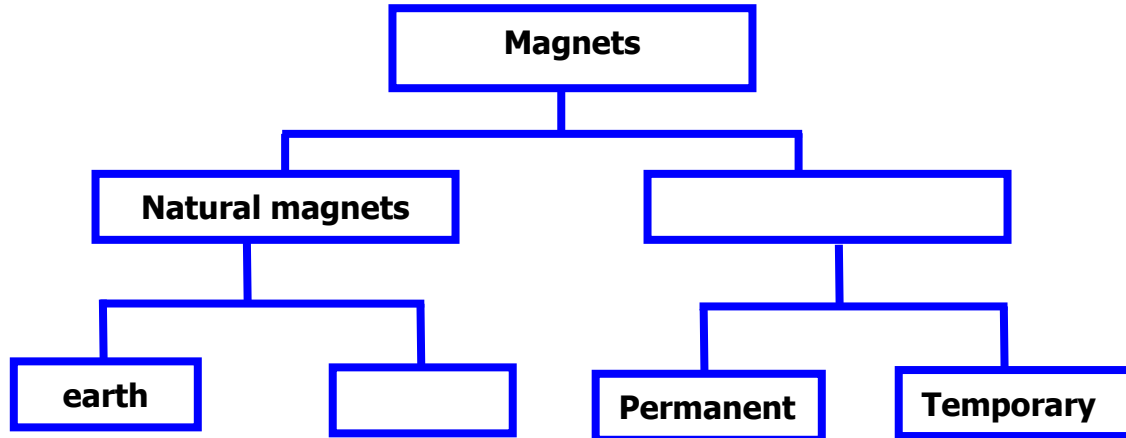
46. The diagram below shows a bar magnet put in a basin with water



a) Name the property of a magnet shown above

✓ **A freely suspended bar magnet will always rest with its poles facing North – South direction**

b) Complete the chart below



c) Give **one** way a magnet can lose its magnetism which involves noise pollution.

✓ **Hitting a magnet / hammering a magnet**

47. (a) What are energy resources?

✓ **Energy resources are things in the environment that produce useful energy**

(b) How is water as an energy resource replaced when used up?

✓ **Through water cycle**

(c) Give **two** examples of useful energy resources got from water

✓ **Geothermal electricity**

✓ **Hydro electricity**

✓ **Tidal electricity**

48. The steps below are for administering first aid for a certain accident. Arrange them in order.

1. Lie the victim on his/her back and tilt the head backwards
2. Shout for help from people around
3. Apply mouth to mouth breathing
4. Remove the person from water as soon as possible.

Correct order

- ✓ **Shout for help from people around.**
- ✓ **Remove the person from water as soon as possible.**
- ✓ **Lie the victim on his/her back and tilt the head backwards.**
- ✓ **Apply mouth to mouth breathing.**

49. Miss Namatovu left a pit behind her house from which she used to collect water for building uncovered. She no longer uses the pit but the water is still there.

a) What disease is likely to affect her family as a result of the pit?

- ✓ **Malaria**
- ✓ **Elephantiasis**

b) Why is the disease mentioned in (a) above grouped under water vector habitat disease?

✓ **Its vector breed in water**

c) How can Miss Namatovu control such a disease mentioned in (a) above?

✓ **By draining still water/ stagnant water**

✓ **By oiling still water/stagnant water**

d) Give **one** way of controlling diseases at home without drugs

✓ **Feeding on a balanced diet**

✓ **Having enough rest and sleep.**

✓ **Doing regular physical exercises**

50. Match the following vertebrates correctly to their Characteristics

Vertebrates

Characteristics

i) Toads

Uses sharp teeth to trap their prey

ii) Crocodiles

Have rough dry skin

iii) Chameleons

Breathes through moist skin in water

iv) frogs

Camouflages

- ✓ **toads** - have rough dry skin
- ✓ **crocodiles** - uses sharp teeth to trap their prey
- ✓ **chameleons** - camouflages
- ✓ **frogs** - breathes through moist skin.

51. (a) To which group of arthropods do houseflies belong?

✓ **Insects**

(b) How are fresh water snails dangerous to human beings?

✓ **They spread bilharziasis to human beings**

(c) Give **one** difference between a centipede and a millipede in terms of structure and defense.

i) **Structure**

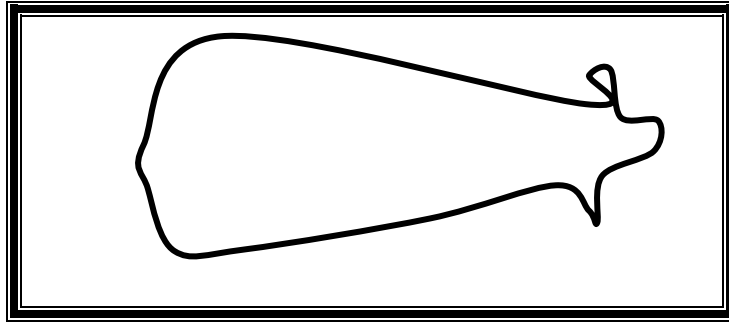
✓ **A centipede has one pair of legs on each segment while a millipede has two pairs on each segment**

ii) **Defense**

✓ **A centipede protects itself by stinging while a millipede protects itself by coiling/curling**

52. Nakyanzi wants to start a cattle farm and her intension is to keep Friesian cows. She drew a sketch of it

(a) In the space below, draw a picture showing her sketch



(b) State the main product Nakyanzi is intending to get from her farm.

✓ **Milk**

(c) Of the two tools, burdizzo and a strip cup, which **one** can be more useful to her?

✓ **A strip cup**

(d) Give a reason to support your answer.

✓ **Because she wants to keep a milk breed**

53. (a) What is the importance of a vacuum flask at home?

✓ **A vacuum flask keeps hot liquids hot or cold liquids cold. Reject: hot things and cold things.**

(b) Give the reason why parents with young children don't want to buy vacuum flasks.

✓ **It is delicate to handle**

(c) Name the part of a vacuum flask that reduces heat loss by radiation.

✓ **Double Silvered Walls**

(d) Which method of heat transfer is used by a “dhobi” to iron clothes?

✓ **Conduction**

54. (a) How do the following organisms reproduce?

i) Yeast **By cell budding**

ii) Mushroom **By means of spores**

iii) Bacteria **By cell division/binary fission**

iv) Algae **Fragmentation**

55. Nakakeeto Anabel observed a jackfruit using the five senses as shown below. Fill in the blank spaces.

Observation	Sense	Body structure
fruity	smell	Nose
Makes sound when dropped	hearing	Ears
sweet	taste	tongue