

STEM EXAMINATIONS BOARD

PRE-PRIMARY LEAVING EXAMINATION SET XIII, 2023

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random No.					Personal No.		

Candidate's Name:

Candidate's Signature:

District ID No:

--	--	--	--

Read the following instructions carefully:

1. Do not write your school or district name anywhere on this paper.
2. This paper has two sections: A and B. Section A has 40 questions and Section B has 15 questions. The paper has 8 printed pages altogether.
3. Answer all questions. All answers to both Sections A and B must be written 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 other than graphs and diagrams will not be marked.
5. Unnecessary changes in your work and handwriting that cannot easily be read 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.

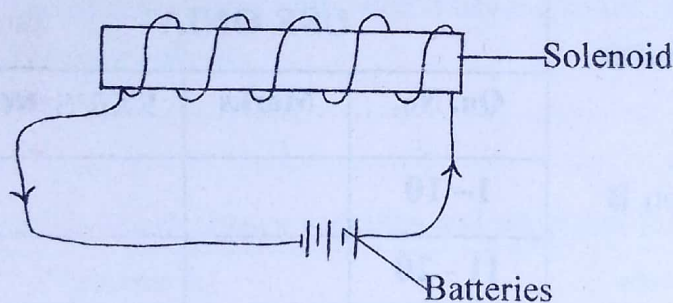
FOR EXAMINERS' USE ONLY		
Qn. No.	Marks	EXR'S NO.
1- 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

SECTION A : 40 MARKS

Questions 1 to 40 carry one mark each.

1. Give any one human activity which changes the environment.
.....
2. State any one health benefit of ironing beddings.
.....
3. How is taking plenty of water useful to the human body?
.....
4. Write down any one sign of a crop affected by pests.
.....
5. Give one importance of seed dispersal in the environment.
.....
6. How does planting cover crops control soil erosion in the environment?
.....
7. Give one way COVID-19 spreads among human beings.
.....

The diagram below shows a method of making magnets. *Study and use it to answer questions 8 and 9.*



8. Name the method of making magnets shown in the diagram above.
.....
9. Why are magnets using the above method called temporary magnets?
.....
10. How can a rabbit farmer prevent the buck from killing young rabbits after birth?
.....
11. Give a reason why AIDS patients should be properly fed?
.....
12. How is decomposition an important process in the environment?
.....
13. What is the role of the family in promoting community health?
.....
14. State the role of clouds in the water cycle.
.....

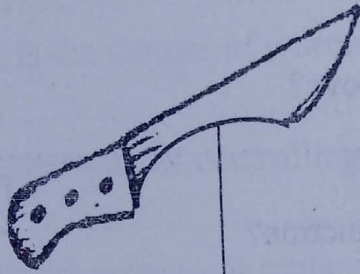
15. Give any one way of educating people about their health.

16. Apart from meat, write down one body building food in the environment.

17. Which type of chicken is kept for production of meat?

18. What is the function of liver in the human digestive system?

The diagram below is of a panga. Study and use it to answer the question that follows.



Sharp blade

19. Which force wore out the sharp blade as shown in the diagram above?

20. Give one way of preventing fungal diseases in the environment.

21. Name the immunisable disease which affects the brain.

22. How is melting similar to evaporation?

23. Why do we wash hands before preparing Oral Rehydration Solution (ORS) at home?

24. Give one fuel used for cooking food at home.

25. Why do farmers prefer keeping exotic breeds of goats.

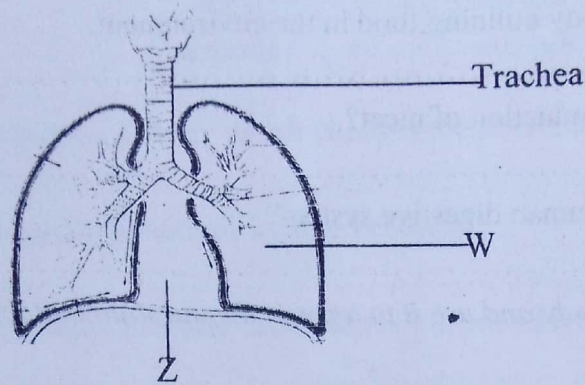
26. Which disorder of the teeth results from chewing hard materials?

27. Why are we unable to see through a frosted glass?

28. How does the nymph differ from the adult stage of a cockroach?

29. Give any one reason for steaming up an in calf before calving.

The diagram below shows the type of breathing. Study and use it to answer questions 30 and 31.



30. Which type of breathing is shown in the diagram above?

31. How is part marked W adapted to carrying out its function?

32. Which part of a plant leaf conducts manufactured food to other parts of a plant?

33. How does carbon dioxide preserve food in the environment?

34. Name the form of energy produced when an object vibrates.

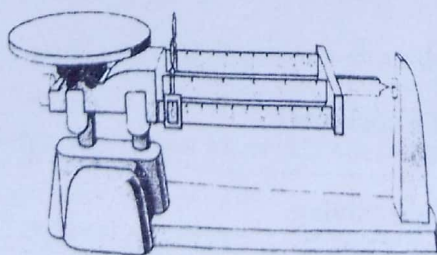
35. State the use of a proboscis to a mosquito.

36. Give one way human beings use water to meet their needs.

37. Why do the roots of a cassava plant swell?

38. Give any one difference between alcohol and alcoholism.

The diagram below is of a beam balance. Study and use it to answer question that follows.



39. How is the instrument shown in the diagram above useful to a shopkeeper?

40. Which disease affects bones and muscles among human beings?

SECTION B: 60 MARKS

(Questions 41 to 55 carry four marks each.)

41. (a) How do earthworms breathe?

(b) Why are earthworms called hermaphrodites?

(c) What is the danger of worms in the environment?

(d) Give one way of controlling worms among animals.

42. (a) Name the process of replacing the lost salts and fluids from the body.

(b) Which body condition results from loss of water and mineral salts from the body?

(c) Give any two ways of controlling cholera infection among human beings.

(i).....

(ii).....

The diagram below shows rolling ball. *Study and use it to answer questions that follow.*



43. (a) Which type of energy does the ball possess as shown in the diagram above?

(b) State the energy change which takes place when the ball falls to the ground.

(c) Apart from heat, give one form of energy produced when the ball falls to the ground.

(d) How is heat similar to magnetism as forms of energy?

44. (a) Write down any two effects of rainfall in the environment.

(i).....

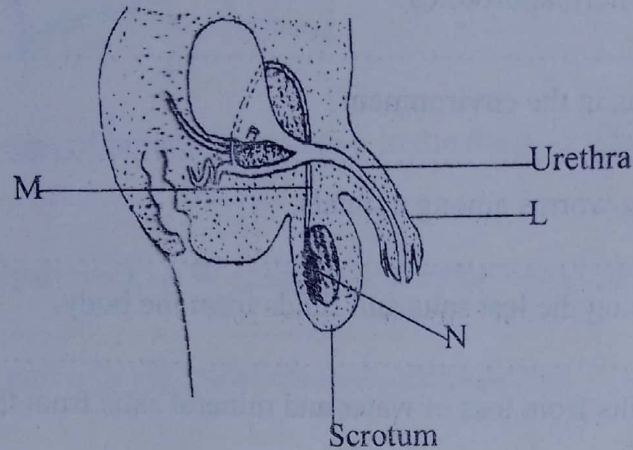
(ii).....

(b) Give any two places where rain water collects in the environment.

(i).....

(ii).....

The diagram below shows male reproductive organs. Study and use it to answer questions that follow.



45. (a) Name the parts marked;

(i) M

(ii) N

(b) Why does the scrotum shrink during cold weather?

(c) State the function of part marked L in reproduction.

46. (a) Name the gas contained in tobacco smoke.

(b) Why do smokers put fire on cigarettes before smoking?

(c) Give two drugs contained in tobacco.

(i).....

(ii).....

47. Match energy resources and their uses correctly.

	Energy resource (s)	Use (s)
(i)	Uranium	Provide energy for running car engines
(ii)	Coal	Making nuclear energy
(iii)	Petroleum	For cooking food
(iv)	Natural gas	For making steel

- (i) Uranium
- (ii) Coal
- (iii) Petroleum
- (iv) Natural gas
48. (a) Name the bacteria which cause cholera among human beings.
.....
- (b) Apart from cholera, give two bacterial diseases in the community.
(i).....
(ii).....
- (c) How can immunisable bacterial diseases be controlled in the environment?
.....
49. (a) Name two forces which reduce efficiency of machines.
(i).....
(ii).....
- (b) A man used 120N to raise 360N force using a see-saw. Calculate the mechanical advantage of a see-saw. (2 marks)
50. (a) How is night blindness similar to scurvy as deficiency diseases?
.....
- (b) What shows night blindness among human beings?
.....
- (c) Give any two food stuffs used to prevent night blindness among human beings.
(i).....
(ii).....
51. (a) Write down two water impurities.
(i).....
(ii).....
- (b) How do impurities affect water in the environment?
.....
- (c) Give any one sign of impure water.
.....
52. (a) Which type of records shows the amount of food given to rabbits?
.....

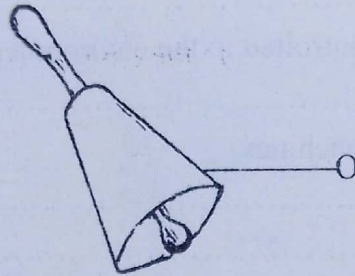
- (b) Apart from the records named in (a) above, give two types of records kept on a rabbit farm.

(i).....

(ii).....

- (c) Why do farmers keep records on their farms?

The diagram below shows a musical instrument. Study and use it to answer questions that follow.



53. (a) Name the musical instrument shown in the diagram above.

- (b) State the function of part O in the use of the above instrument.

- (c) Give two instruments which belong to the same group with the one shown in the diagram above.

(i).....

(ii).....

54. The table below shows vaccines and administration sites. Complete it correctly.

	Vaccine (s)	Administration site (s)
(i)	Left upper arm
(ii)	Polio vaccine
(iii)	Left upper thigh
(iv)	BCG vaccine

55. (a) Which plant process uses carbon dioxide from animals?

- (b) Give two ways plants benefit from animals in the environment.

(i).....

(ii).....

- (c) Why are plants regarded as producers in the food chain?