

STEM EXAMINATIONS BOARD

PRE-PRIMARY LEAVING EXAMINATION SET XIV, 2024

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Index No.	Random No.					Personal No.		

Candidate's Name:

Candidate's Signature:

District ID No:

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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.

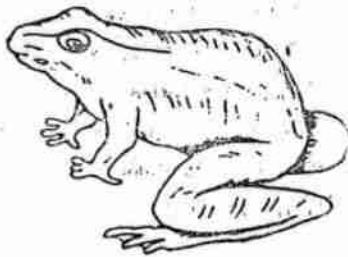
FOR EXAMINERS' USE ONLY		
Qn. No.	Marks	EXR'S NO.
1- 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

SECTION A : 40 MARKS

Questions 1 to 40 carry one mark each.

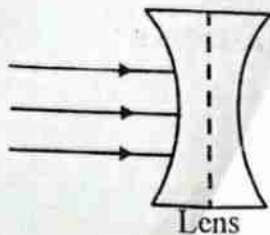
1. What happens to ice when its temperature increases to 0°C ?
.....
2. Why is salt added to Oral Rehydration Solution (ORS)?
.....
3. State the effect of pouring engine oil on the soil.
.....
4. Give any one reason why hydrochloric acid is important in the stomach.
.....
5. Why is fold pen system of keeping poultry not commonly practiced by farmers?
.....
6. How does opening of water channels control flooding in the environment?
.....

The diagram below shows an organism in the environment. *Study and use it to answer questions 7 and 8.*



7. How does the above organism breathe when in water?
.....
8. Why is the above organism able to live both on land and in water?
.....
9. State any one indicator of fever in the human body.
.....
10. Why is petroleum referred to as an exhaustible resource?
.....
11. Give one reason why sacks of harvested cassava are placed off the floor during storage.
.....
12. How does religious affiliations affect the rate of food consumption in a community?
.....

The diagram below shows a lens. Study and use it to answer questions 13 and 14.



13. Complete the diagram above by showing how rays pass through the lens.

14. How does a lens enable the microscope to work?

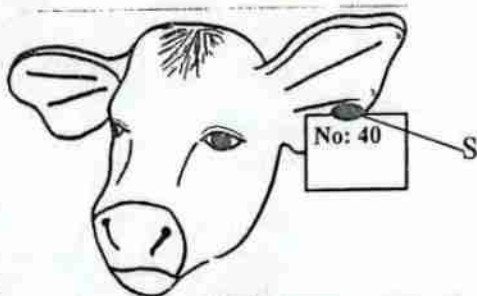
15. Why is the lid put on the squat hide of a convectional latrine?

16. Give any one way water is essential for plants in the environment.

17. State the benefit of dental flossing to the human body.

18. Why should vaccines be stored in refrigerated facilities?

The diagram below shows an animal's head. Study and use it to answer questions 19 and 20.



19. Name the structure marked S on the diagram above.

20. How is the above structure useful in animal husbandry?

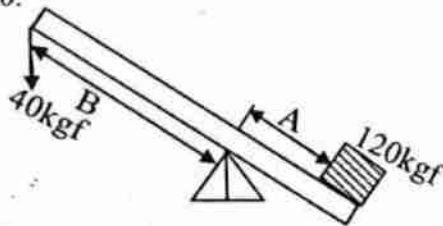
21. Give the use of a switch to a cow grazing in the field.

22. Why should mothers participate in maternal and health care programs?

23. What is the difference between aerobic and anaerobic bacteria?

24. Why is the left side of the heart able to pump blood over a long distance?
25. What do we call the use of drugs in the way that is harmful to the body?
26. How do crop farmers use animals as sources of energy?
27. Why do we usually hear buzzing sound in a hive?
28. What causes malnutrition among human beings?

The diagram below shows a simple machine. *Study and use it to answer questions 29 and 30.*



29. Which type of simple machine is shown in the diagram above?
30. State the benefit of increasing the distance marked **B** when using the above machine.
31. What causes hiccups in the human body?
32. Why should wood cut for timber be dried under a shade?
33. How does soaking increase viability of seeds?
34. Mention any one danger of sexual deviations among human beings.
35. State the importance of kindling nests in a rabbit hutch.
36. Give any one cause of poisoning in a home.
37. Which type of muscles enable the human arm to bend?
38. Name the part of the banana plant used for reproduction.
39. Apart from growth, state one other function of proteins in the human body.

40. What happens when the earth moves between the sun and the moon in a straight line?



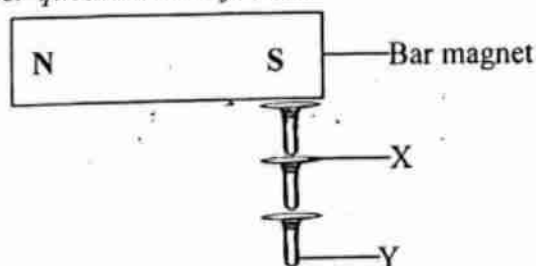
SECTION B: 60 MARKS

(Questions 41 to 55 carry four marks each.)

41. (a) Name the type of lifecycle tsetse flies undergo.
.....
(b) Why do the eggs of tsetse flies hatch from the body?
.....
(c) State any two ways of controlling tsetse flies in the environment.
(i).....
(ii).....
42. (a) Which pigment protects the human skin against ultra violet rays from the sun?
.....
(b) Why is the human skin able to keep moist?
.....
(c) Give any two ways the human skin regulates body temperatures.
(i).....
(ii).....
43. State the effects of the following farming practices to the soil.
(i) Bush burning
(ii) Over cultivation
(iii) Leaching
(iv) Mono cropping



The diagram below shows a method of making temporary magnets. *Study and use it to answer questions that follow.*



44. (a) Which method of making magnets is shown in the diagram above?
.....
(b) Name the poles of magnets marked;
(i) X
(ii) Y

(c) Why are the magnets made using the above method said to be temporary?

45. (a) Which type of germination is a characteristic of monocotyledonous plants?

(b) Give two roles of water during seed germination.

(i).....

(ii).....

(c) Why does the radical of a germinating seed grow faster than the plumule?

46. (a) What causes egg eating among birds?

(b) Apart from egg eating, give any two bad habits which develop among birds kept together.

(i).....

(ii).....

(c) Why are poultry farmers advised to put laying nests in dark corners?

47. (a) Which type of worms enter the human body through eating half cooked food?

(b) Apart from half cooked food, give any two ways worms enter the human body.

(i).....

(ii).....

(c) Why should babies be regularly dewormed?

48. (a) How does abstinence promote reproductive health among human beings?

(b) What is the danger of wearing very tight under wears to the human body?

(c) Give any two ways human beings care for their reproductive system.

(i).....

(ii).....

49. (a) How is static electricity produced in the environment?

(b) Name the natural form of static electricity in the environment.

(c) Give any two ways of preventing dangers of lightening in the environment.

(i).....

(ii).....

50. (a) How does recycling metallic scraps conserve minerals in the environment?

(b) Give any two reasons why minerals should be used sparingly.

(i).....

(ii).....

(c) Why do human beings commonly use wood fuel for cooking rather than natural gas?

51. (a) Give any two signs of brain damage caused by excessive consumption of alcohol.

(i).....

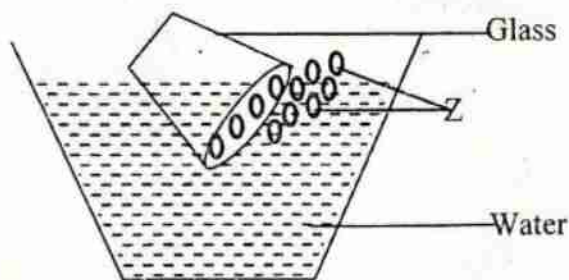
(ii).....

(b) Apart from brain damage, write down any two effects of alcohol to an individual.

(i).....

(ii).....

The diagram below shows property of air. *Study and use it to answer questions that follow.*



52. (a) Which property of air is illustrated in the diagram above?

(b) What do the structures marked Z in diagram above represent?

(c) Why is Pesticide able to splash with greater pressure when being sprayed?

(d) Give any one other application of the property of air Similar to the one in C above.

53. (a) What is drenching?

(b) Why do farmers carry out drenching?

(c) What is the use of acaricides on a cattle farm?

- (d) State the benefit of regular replacement of acaricides in a dip tank.

The table below shows organisms in the environment. *Study and use it to answer the questions that follow.*

P	Q	R
Butterfly	Spider	Lobster
Termite	Ticks	crab

54. (a) Which general term is used to describe the above organisms?
- (b) Give any two similarities between organisms shown in the table above.
- (i).....
- (ii).....
- (c) How is a termite different from a spider in terms of breathing?

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



55. (a) Name the family of musical instruments to which the above instrument belongs.
- (b) What is the use of the stick when using the above instrument?
- (c) How does the above instrument produce sound when played?
- (d) State the benefit of displaying the above instrument in the sunshine before it is played.



END