

STEM EXAMINATIONS BOARD

PRE-PRIMARY LEAVING EXAMINATION SET XI, 2023

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

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. Name any one animal which moves by crawling.

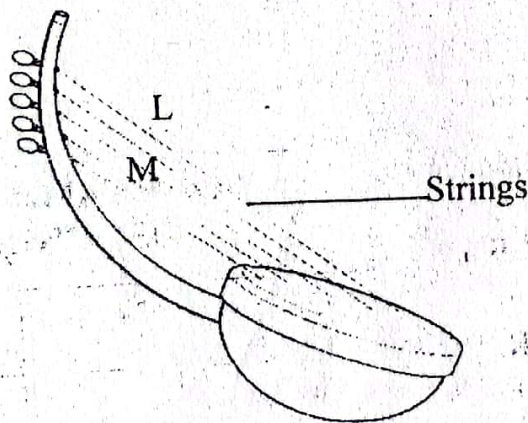
2. How do crop farmers control pests in their gardens?

3. Give any one role of children in promoting immunisation in their communities.

4. State any one reason why viral diseases among cattle are dangerous.

5. How can poisoning among children be prevented?

The diagram below shows a musical instrument. Study and use it to answer the question that follows.



6. How does sound produced by string L differ from the one produced by string M?

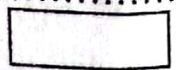
7. Which body part makes the human body aware of temperature change in the environment?

8. State the primary source of energy in the environment.

9. Why does sun drying keep food safe for a long time?

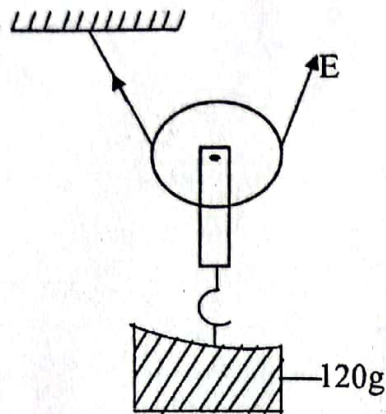
10. Name the state of matter in which heat travels slowest.

11. Why does a person suffering from cholera become dehydrated?



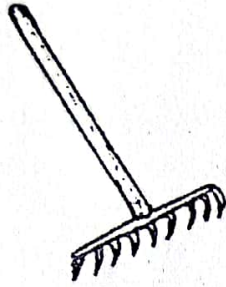
12. Which type of chicken is kept by farmers in your community?

The diagram below shows a simple machine. Study and use it to answer the question that follows.



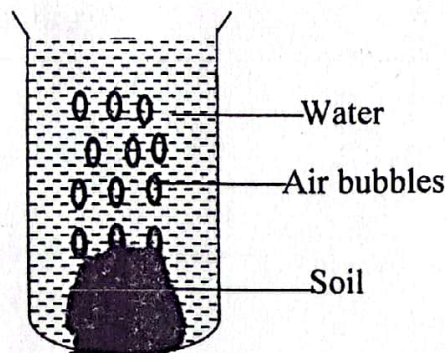
13. How much effort is need to raise 120g using the above machine?
.....
14. State the role of oxygen during seed germination.
.....
15. Give any one social problem among the young people.
.....
16. State the difference between spiders and houseflies.
.....
17. Why is the bedrock of the soil profile unable to support plant growth?
.....
18. Which set of teeth develops first in human beings?
.....
19. How do houseflies obtain food in the environment?
.....
20. State one role of worker bees in a hive.
.....
21. How do bacteria reproduce?
.....
22. Which part of the skeleton protects the reproductive organs in female human beings?
.....

The diagram below shows a tool used to clean the environment. *Study and use it to answer questions 23 and 24.*



23. Name the tool shown in the diagram above.
.....
24. How does the tool above promote sanitation?
.....
25. State the function of root nodules in flowering plants.
.....
26. How is the ileum adapted to food absorption?
.....
27. State any one effect of biological change in the environment.
.....
28. How does clearing bushes around homes help to control vectors?
.....
29. Give any one difference between a ray and a beam of light.
.....
30. Which breed of goats is purposely kept for its good quality fur?
.....
31. Mention any one activity farmers carryout during a dry season.
.....
32. Why does blood pass through the liver during circulation?
.....

The diagram below shows an experiment. *Study and use it to answer the question that follows.*



33. What does the experiment show about soil?
.....

34. State one sign of sexual maturity among adolescent girls.
.....
35. Which material is used to dry the skin after bathing?
.....
36. Give one natural process which increases carbon dioxide in the environment.
.....
37. Why do objects behave different when put in water?
.....
38. State the use of a methylated spirit in giving first aid for cuts.
.....
39. Why does the Government carryout demography.
.....
40. How is the reproduction in whales different from that of fish?
.....

SECTION B: 60 MARKS
(Questions 41 to 55 carry four marks each.)

41. (a) State the cause of kwashiorkor among human beings.
.....
- (b) Give two signs of kwashiorkor in human beings.
(i).....
(ii).....
- (c) Give the best way of preventing kwashiorkor among human beings.
.....

42. The table below is about the major organs of the body and their functions. *Complete it correctly.*

	Organ	Function
(i)	The brain
(ii)	Pumps blood all around the body
(iii)	The lungs
(iv)	Filtering wastes from the body

43. (a) Which disease affect both Rabbits and Poultry?
.....

(b) State any two signs of snuffle disease in rabbits.

(i).....

(ii).....

(c) Give the rabbit disease which causes sores and wounds on the ears.

44. (a) Which non metallic conductor is used in dry cells?

(b) Why is dry wood unable to conduct electricity?

(c) Apart from dry wood, state two substances which do not allow electricity to go through them easily.

(i).....

(ii).....

45. (a) What are Essential drugs?

(b) State any two characteristics of essential drugs.

(i).....

(ii).....

(c) Give any one essential drug.

46. (a) Which group of birds have webs on their feet?

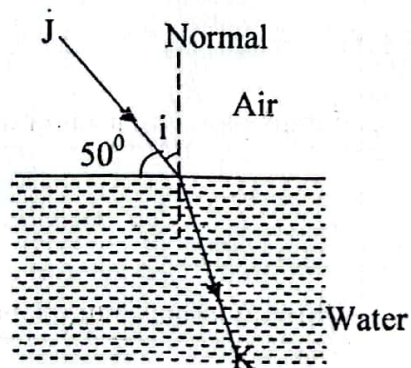
(b) State the function of the webs to the birds above.

(c) Give any two birds which have webs on their feet.

(i).....

(ii).....

The diagram below shows a ray of light travelling from air to water. *Study and use it to answer questions that follow.*



47. (a) Name the rays of light marked;

(i) J

(ii) K

(b) Why does the ray of light bend towards the normal as it moves from air to water?

(c) Calculate the size of the angle marked i on the diagram.

48. (a) State two characteristics of physical changes.

(i).....

(ii).....

(b) Give any two ways in which the environment benefits from physical changes.

(i).....

(ii).....

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

Part of air	Air breathed in	Air breathed out
Oxygen	K	15%
Nitrogen	78%	78%
Carbon dioxide	0.03%	5%

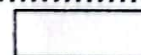
49. (a) What percentage of air is represented by letter K in the table above?

(b) Why does the percentage of;

(i) Nitrogen remain the same in the air we breathe out?

(ii) Carbon dioxide increase in the air breathed out?

(c) Where does real exchange of gases take place in the human lungs?



50. (a) State any two signs of poor sanitation in a home.

(i).....

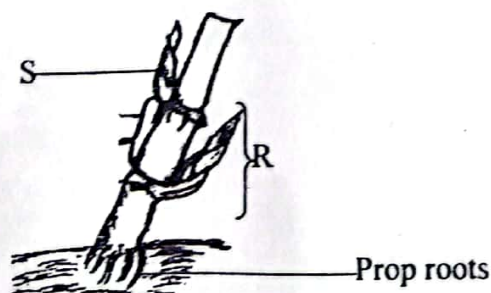
(ii).....

(b) Give any two areas in a home which should be kept clean all the time.

(i).....

(ii).....

The diagram below shows part of a plant. Study and use it to answer questions that follow.



51. (a) Name the parts marked;

(i) R

(ii) S

(b) How is part marked S important to a plant?

(c) Which type of stem is shown in the diagram above?

52. (a) Where does selective re-absorption of useful substances take place in the kidneys?

(b) Why do human beings sometimes pass out yellow urine?

(c) Give two components of urine.

(i).....

(ii).....

53. (a) State two practical application of filtration in the environment.

(i).....

(ii).....

(b) Apart from filtration, give two ways of making dirty water clean.

(i).....

(ii).....

54. Match elements of Primary Health Care (PHC) with their benefits:

	Element (s)	Benefit (s)
(i)	Food and nutrition	Saves lives of casualties
(ii)	First aid	Reduces infant mortality rate
(iii)	Immunisation	Prevents food deficiency diseases
(iv)	Maternal and child health care	Protects children against immunisable diseases

(i) Food and nutrition

(ii) First aid

(iii) Immunisation

(iv) Maternal and child health care

55. (a) Which two liquids are used in maximum and minimum thermometer?

(i).....

(ii).....

(b) State the function of a maximum and minimum thermometer.

(c) Name any one place where a maximum and minimum thermometer is found.