

PRE - PLE SPECIAL SET II - 2022
INTEGRATED SCIENCE

Time allowed: 2 Hours 15 Minutes

Index No.

RANDOM NO.						PERSONAL NO.		

Candidate's Name:

Candidate's Signature:

School Random No:

District ID:

Read the following instructions carefully.

1. This paper has two sections **A** and **B**.
2. Section **A** has **40** short questions. (40 marks)
3. Section **B** has **15** questions. (60 marks)
4. Answer **ALL** questions. All answers to both sections **A** and **B** must be written in spaces provided.
5. All answers must be clearly written using blue or black ball point pen or ink. Only diagrams should be drawn in pencil.
6. Unnecessary changes of work may lead to loss of marks.
7. Do not fill in the boxes. They are for examiners' use only.

**FOR
EXAMINERS'
USE ONLY**

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QN. NO.	MARK	SIGN
1-10		
11-20		
21-30		
31-40		
41-43		
44-46		
47-49		
50-52		
53-55		
TOTAL		

SECTION: A

1. Name the part of a seed that germinates.

2. Apart from liquid, give another state of matter through which heat travels by convection.

3. State any one role of the circulatory system in the excretion process.

4. What happens to a sugary solution when yeast is added?

5. State one advantage of recycling plastic wastes over burning.

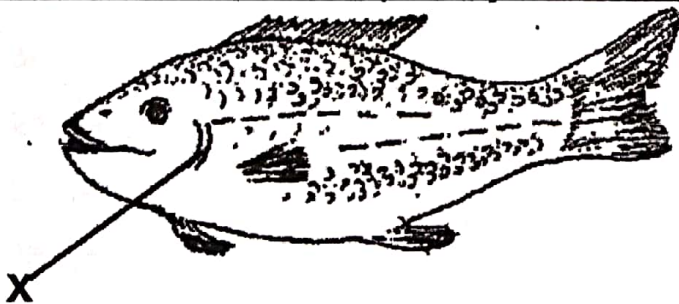
6. Why do stones produce light sparks when they hit each other?

7. Give any one way of carrying out health education in the community.

8. Name any one ectoparasite controlled through wearing shoes.

9. Give one use of old clothes in the control of crop pests in the garden.

The diagram below show a fish, study it and answer questions 10 and 11.



10. Name part X.

11. What is the function of the organ protected by part X?

12. Mention one electrical appliance at home that turns electrical energy into kinetic energy.

13. How is Melanin useful in the prevention of rickets?

14. State any one way counseling is important to people living with HIV.

15. Give one way of preventing siltation of water bodies.

16. How do adults acquire immunity naturally?

17. Name the nutrients that plants get from humus.

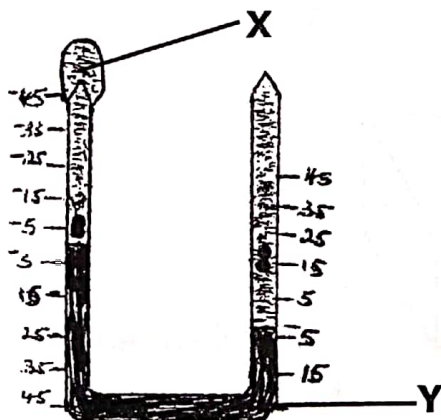
18. Give one way of safe guarding ourselves against lightning.

19. How do railway engineers manage the effect of heat on matter?

20. What first aid can be given to person who has taken too much alcohol?

21. Which term is used to mean the ratio of the load to the effort in machines?

The diagram below shows a six's thermometer. Study it and answer questions 22 and 23.



22. Name liquid marked **X**.

23. Why is liquid **Y** unable to measure temperature below 0°C ?

24. Give a reason why some disease vectors bite animals.

25. State any one way of preparing seedlings to the garden conditions before transplanting.

26. How is photosynthesis important in the food chain?

27. What is the use of hydrochloric acid to the enzymes in the stomach?

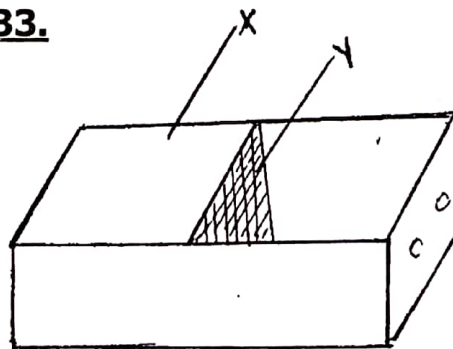
28. Why should customers read the expiry dates of their products before use?

29. State one way of controlling splash erosion in the garden.

30. State any one characteristic of roots that form the fibrous root system.

31. Give any one way health problems in a community can be gathered.

The diagram below shows a modern hive. Study it and answer the questions 32 and 33.



32. Name the chamber marked **X**.

33. State the importance of part Y.

34. Why is the outer wall of a vacuum flask painted with silver?

35. Give one importance of sorting rubbish before using it in the garden.

36. Apart from protection, give one other way animals benefit from Camouflaging.

37. Give any one importance of sand in the water cleaning process.

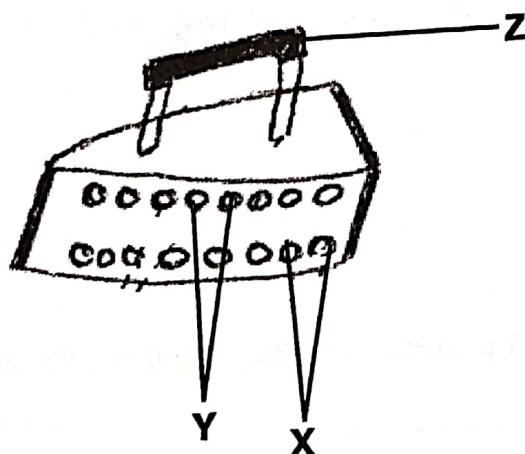
38. Why is a tadpole unable to live on land like adult frogs?

39. Give one reason why a biogas digester should be tightly sealed.

40. State any one condition needed for eggs to hatch into chicks.

SECTION: B

41. **The diagram below shows an item used at home, study it and answer the questions that follow.**



(a) Name the item.

(b) Give one use of the item above.

(c) How is part **Z** designed to prevent burns?

(d) State one factor that makes some part of air to pass through holes **X** and the other through holes **Y**.

42. (a) Name the body condition treated by using Oral Rehydration Solution.


(b) State one use of each of the following components of oral rehydration solution.

(i) sugar _____

(ii) water _____

(c) Give one practice that helps to produce clean and safe oral rehydration solution.

43. (a) State any one reason why babies are more vulnerable to illness than adults.

 (b) Apart from vaccination, give two other ways of protecting the baby against

illness.

(i) _____

(ii) _____

(c) How does vaccination protect the baby against illness?

44. The piece of information was got from a farm book of a certain cattle farmer. Study it and answer the questions that follow.

Activity	Date
Vaccination	01/06/2021
Insemination	10/06/2021
Dipping	25/06/2021

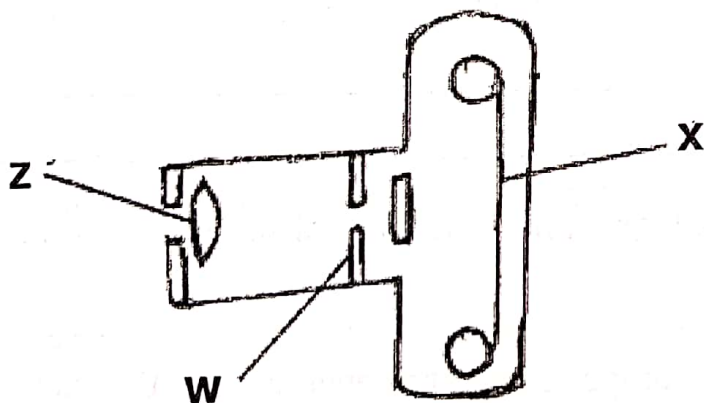
- (a) What name is given to the information shown above?

- (b) In which month was the information written?

- (c) How is the date of insemination important to the farmer?

- (d) State any one pest control activity missing in the information.

45. The diagram below shows a lens camera. Study it and answer the questions that follow.



- (a) Name the parts **W** and **Z**.

(i) **W** _____

(ii) **Z** _____

(b) Which part of the eye has the same function as part **X** on the diagram?

(c) State any one characteristic of images formed at **X**.

46. (a) Mention any two animal wastes used to produce natural fertilizers.

(i) _____

(ii) _____

(b) Give two advantages of using natural fertilizers over the artificial ones.

(i) _____

(ii) _____

47. (a) State any two common characteristics of all mammals.

(i) _____

(ii) _____

(b) Give one way how each of the animals below differ from other mammals

(i) Duck billed platypus

(ii) Kangaroo

48. (a) Apart from rainfall, give one other natural source of water.

(b) Mention any two components of the environment that help in rain formation.

(i) _____

(ii) _____

(c) How is rain water similar to distilled water?

49. Match the organisms in list A with their mode of reproduction in list

B.

A	B
Birds	budding
Bacteria	seeds
Yeast	laying eggs
Conifers	binary fission

- (i) Birds : _____
- (ii) Bacteria: _____
- (iii) Yeast: _____
- (iv) Conifers: _____

50. (a) Mention two parts of the muscular – skeletal system formed by calcium.

- (i) _____
- (ii) _____

(b) Name the type of vitamins that serves the same function as calcium in the body.

(c) State any one effect of calcium deficiency in the human body.

51. (a) Apart from proper drying, give two other ways of keeping stored seeds safe.

- (i) _____
- (ii) _____

(b) How does proper drying keep stored seeds safe?

(c) How is a granary designed to keep stored crops free from rodents?

52. (a) Apart from a young farmers club, give one other science oriented club that can be formed at school.

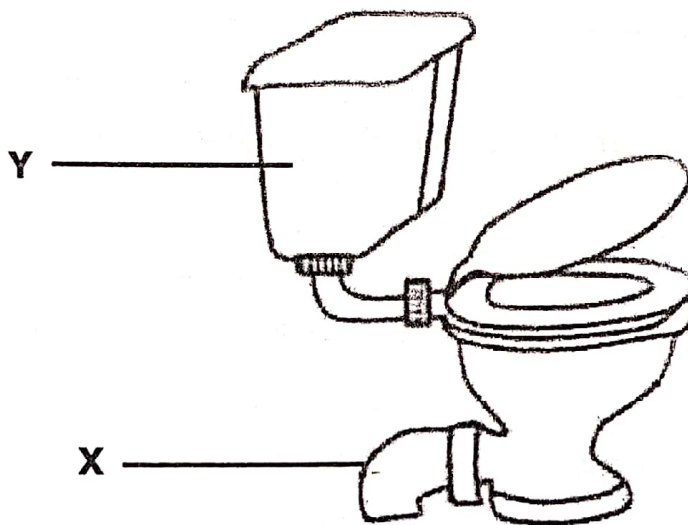
- (b) Mention any two projects that can be carried out by the young farmers club.

(i) _____

(ii) _____

- (c) State one benefit of young farmers club to the school children.

53. **The diagram below shows a type of latrine. Study it and answer the questions that follow.**



- (a) Name the type of latrine shown above.

- (b) Give one use of each of the following parts;

(i) X _____

(ii) Y _____

- (c) Give one way of keeping the above latrine clean after use.

54. **The table below shows parts of the human ear and their functions.**

Complete it by filling in the missing information.

	Part	Functions
(i)	_____	Collects sound waves
(ii)	Ear drum	_____
(iii)	_____	Converts sound vibration into nervous impulses
(iv)	Semi-circular canals	_____

55. (a) State the freezing point of water in the Fahrenheit scale.

- (b) Convert 68°F to °C.

(3marks)

END