



SUREKEY EXAMINATIONS BOARD
PRE-PLT TARGET SERIES (BERLIN)

2024

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random NO.						Personal No.		

Candidate's Name:

Candidate's Signature:

School Name:

Read the following instruction carefully:

1. Do not forget to 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 **15 printed pages** altogether.
3. Answer **all** the 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 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.

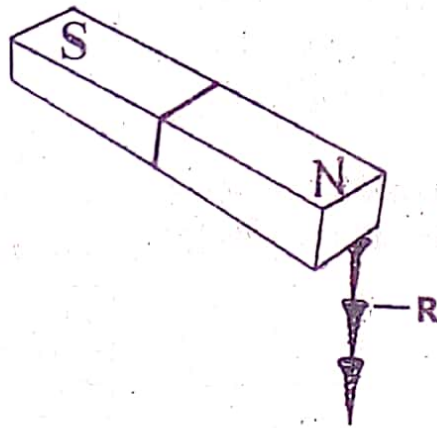
FOR EXAMINERS' USE ONLY		
QN.NO.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

SECTION A: 40 MARKS

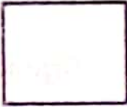
Questions 1 to 40 carry one mark each

1. Name the practice done by crop farmers to replace seedlings that did not germinate in the holes after planting.
.....
2. State any **one** way in which amphibians breathe in their environment.
.....
3. Give any **one** way of promoting oral and dental health care among school children.
.....
4. Give any **one** way in which the umbilical cord is important to the developing foetus in the uterus.
.....

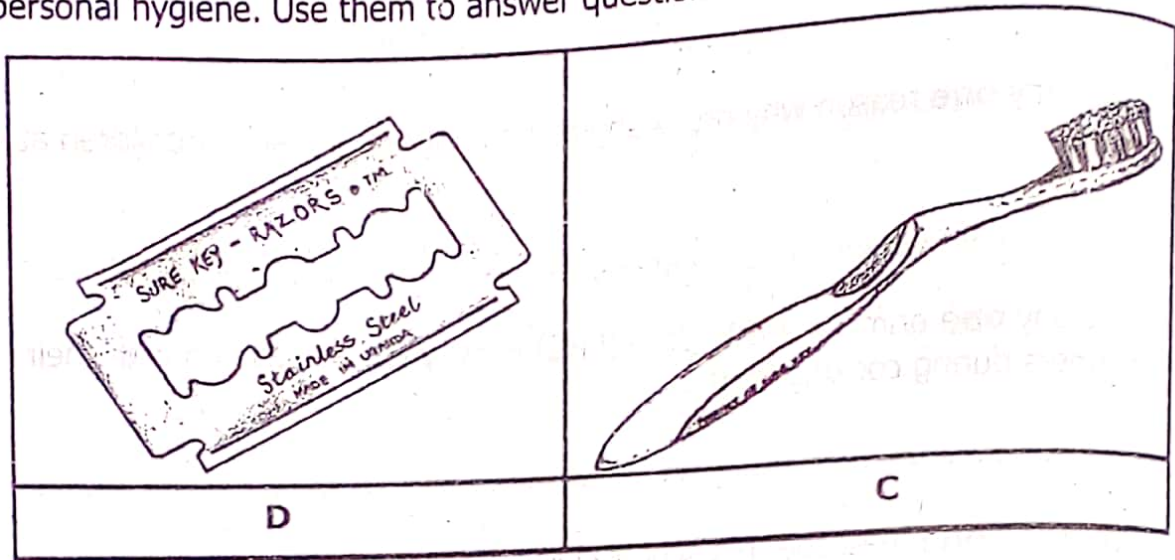
The diagram below shows a method of making temporary magnets. Use it to answer questions 5 and 6.



5. Identify the method of making temporary magnets shown.
.....
6. What will pole marked **R** become after magnetization?
.....

7. Name the component of soil that enables plants to make their own food.
-
8. State any **one** reason why drugs should be kept out of reach of children at home.
-
9. Give any **one** primary Health Care (PHC) activity children can do with their mothers during cooking food.
-
10. Write any **one** message that school children can display in their school compound to promote conservation of the school environment.
-
11. Give any **one** way in which litter is important in a poultry house. 
-
12. Mention any **one** way in which tobacco smoking affects the health of the unborn baby of a pregnant mother.
-
13. Write down any **one** nonrenewable source of current electricity.
-
14. State any **one** way in which people can make use of cow dung produced by their animals at home.
-
15. State any **one** factor that determines the size of an image formed on the pinhole camera.
-

The diagrams below show materials used by school children to promote personal hygiene. Use them to answer questions 16 and 17.



16. Give any **one** use of item marked **D** in promoting personal hygiene.

.....

17. State any **one** proper way of using the material marked **C** when promoting personal hygiene.

.....

18. Give any **one** piece of advice you would give to crop farmers to maintain the fertility of the soil without using any form of fertilisers.

.....

19. State any **one** way in which hens are important in the prevention of kwashiorkor in children.

.....

20. In which method of making water clean do you first allow the impurities to settle at the bottom of the container?

.....

21. Write any **one** activity a farmer should do in order to get clean milk from a cow.

22. Apart from causing objects to appear bent, give any **one** other effect of refraction of light in the environment.

.....

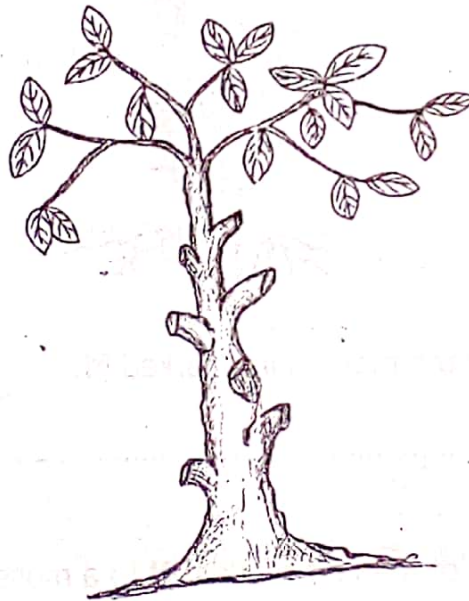
23. State **one** way in which gonorrhoea infection increases the chances of a person getting HIV/AIDS.

.....

24. Write down any **one** group of people who are eligible to receive Tetanus Toxoid (T.T) vaccine during immunization.

.....

The diagram below shows a method of harvesting trees in agroforestry. Use it to answer question 25.



25. Name the method of harvesting trees in agroforestry shown above.

.....

26. Give any **one** way in which PIASCY messages are useful to school children.

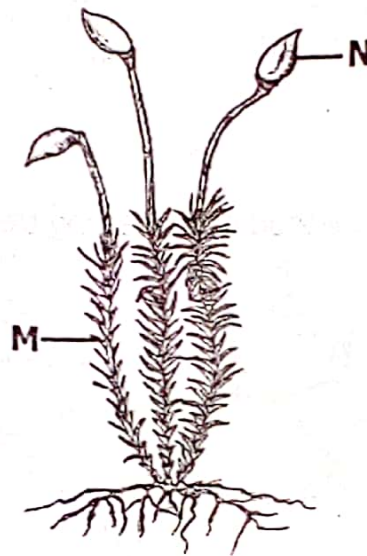
.....

27. Give any **one** negative effect caused by a path that gives a lower resistance to the flow of current at home.

.....

28. Write down any **one** material carried by blood plasma in the human body.
-
29. State any **one** difference between the external features of a cock and that of a hen.
-

The diagram below shows a moss plant. Use it to answer questions **30** and **31**.



30. Name the part of the moss plant marked **M**.
-

31. Give the function of the part marked **N** to a moss plant.



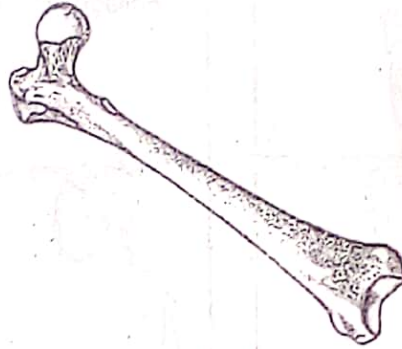
32. Apart from time of taking the drug, give any **one** other factor considered by the health workers when prescribing drugs to a patient.
-

33. How is the left ventricle of the human heart able to pump oxygenated blood at a higher pressure?
-

34. State any **one** way in which trees are able to reduce air pollution in the environment.

.....

The diagram below shows the bone found in the human skeleton. Use it to answer questions **35** and **36**.



35. Name the bone found in the human skeleton shown above.

-
36. In which part of the human body is the bone above found?

-
37. Give any **one** way in which bacteria are useful to crop farmers.

-
38. Give any **one** reason why it is important for the government to carry out demography.

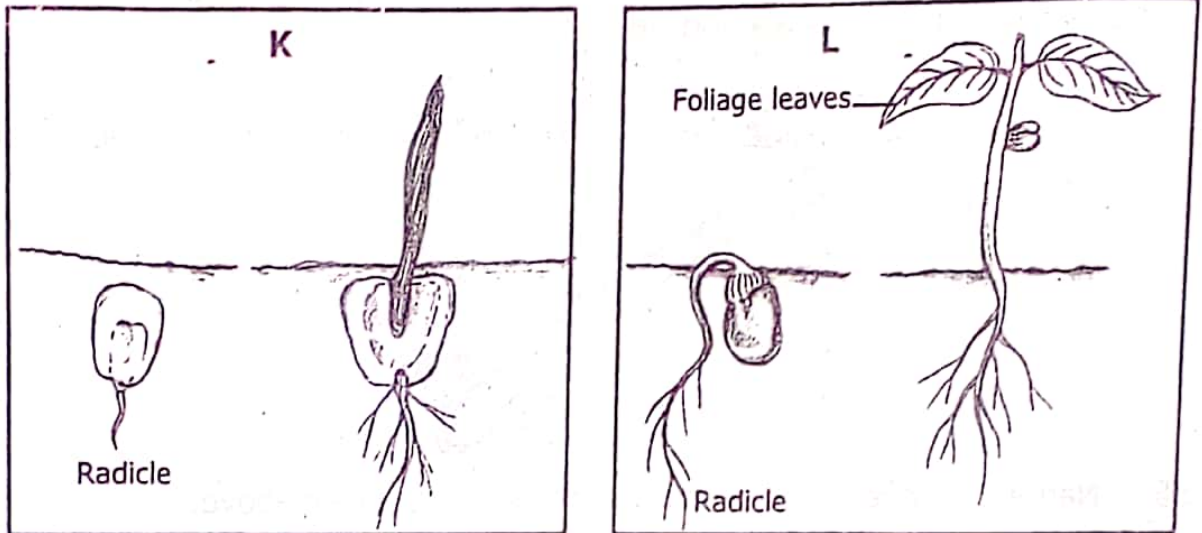
-
39. How does leaching affect the fertility of the soil in the environment?

-
40. Name the structures in the human heart that allow blood to flow in one direction during blood circulation in the human body.

SECTION B: 60 MARKS

Questions 41 to 55 carry four marks each

41. The diagrams below show types of germination. Study and use them to answer the questions that follow.



- (a) Name the type of germination marked **K**.

.....

- (b) State the role of the foliage leaves on the type of germination marked **L**.

.....

- (c) Give any **one** leguminous seed that undergoes the type of germination marked **K**.

.....

- (d) Why does the radicle come out first as shown in the types of germination marked **K** and **L** above?

.....

42. (a) Name the immunization site on the human body for;

(i) BCG vaccine :

(ii) DPT vaccine :

- (b) Give any **two** roles played by school children in the promotion of immunization in their community.

(i)

(ii)

43. (a) -Name the method of separating mixtures used to separate;

(i) Sorghum seeds from its husks:

(ii) Passion fruit juice from its seeds:

- (b) The sentences below show steps taken to prepare local salt at home using the following materials; banana peelings, a clean container, a clean piece of cloth and clean water. Read the given steps carefully and complete the missing steps in the spaces provide correctly.

(i) Get banana peelings and dry them in sunshine.

(ii)

.....

(iii) Pour clean water into the ash to make a solution and filter to get a filtrate.

(iv)

.....

44. (a) Name the part of the respiratory system that;



(i) Flattens during breathing in:

(ii) Contracts during breathing out:

- (b) Give the main reason why the amount of oxygen breathed out in the human body is less than the one breathed in.

.....

- (c) State any **one** way in which the circulatory system is helpful during respiration.

.....

45. A primary six pupil wanted to determine the pitch of sound using three bottles of the same size and brand. He labelled them as **O**, **P** and **Q** and poured different amounts of water in each bottle as stated below;

(i) Bottle **O** had water up to its middle part.

(ii) Bottle **P** had water up to its near top.

(iii) Bottle **Q** had little water in it.

(a) Which bottle produced sound of the highest pitch?

.....

(b) Give a reason for your answer in (a) above.

.....

.....

(c) State any **one** factor that determined the pitch of sound produced by the bottles **O**, **P** and **Q** above.

.....

(d) State what would happen to pitch of sound if water in bottles **O**, **P** and **Q** was replaced by milk.

.....

46. (a) Name the weather instrument used to;

(i) Measure humidity:

(ii) Determine duration of sunshine:

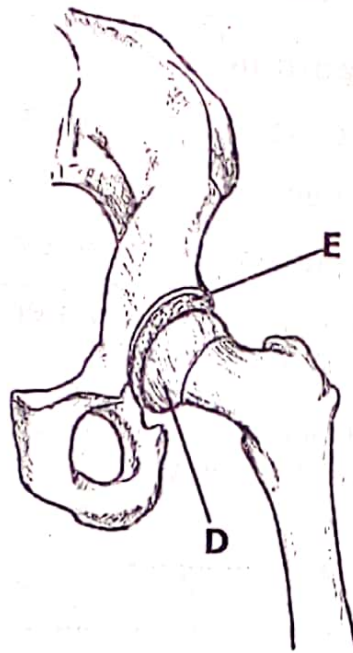
(b) Give any **two** human activities that people can do to improve the formation of rain in the environment.

(i)

(ii)



47. The diagram below shows a movable joint in the human body. Study and use it to answer the questions that follow.



- (a) Name the movable joint shown in the diagram above.
-
- (b) Give the function of the part marked **D** at the movable joint above.
-
- (c) Mention any **one** substance in moving parts of the machine which works like part marked **E** of the movable joint above.
-
- (d) State the difference in movement of the movable joint above and the one at the knee in the human body.
-
-
-

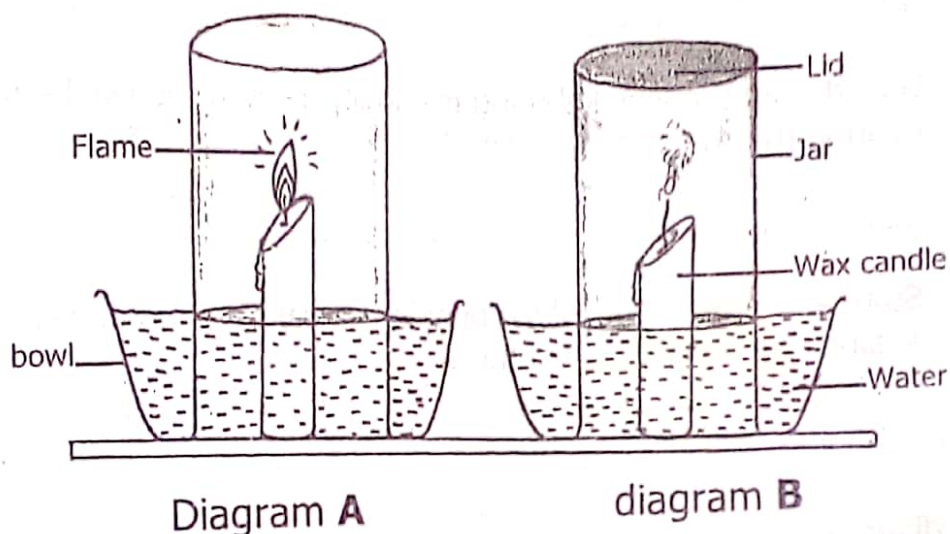
48. The table below shows steps followed when cleaning clothes at home in part **A** and their importance in part **B**.

Part A: steps	Part B: importance
Sorting	-It helps to dissolve dirt in clothes.
Wringing	-It helps to remove soapy water from clothes.
Rinsing	-It helps to prevent some clothes from staining others.
Soaking	-It helps to remove excess water from clothes.

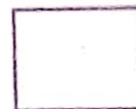
Match correctly the steps followed when cleaning clothes with their importance in the spaces provided below.

- (i) Sorting
-
- (ii) Wringing
-
- (iii) Rinsing
-
- (iv) Soaking
-
49. (a) Apart from typhoid infection, name any **one** other example of a waterborne disease that can affect people in your community.
-
- (b) Give any **two** sanitary practices that can lead to the outbreak of typhoid infection among people in the community.
- (i)
- (ii)
- (c) State any **one** piece of advice you would give to people in your community to protect them against typhoid infection.
-

50. The diagrams below show burning candles placed in a bowl containing water. Study and use them to answer the questions that follow.



- (a) Name the gas found in the jar in diagram A.
-
- (b) Give the reason why the candle flame goes off in jar as shown in diagram B.
-
- (c) State what is most likely to happen to the level of water in the jar in diagram B.
-
- (d) What is the purpose of setting up the experiment above?
-



51. (a) Mention any **two** dangers of lightning in the environment.

(i)

(ii)

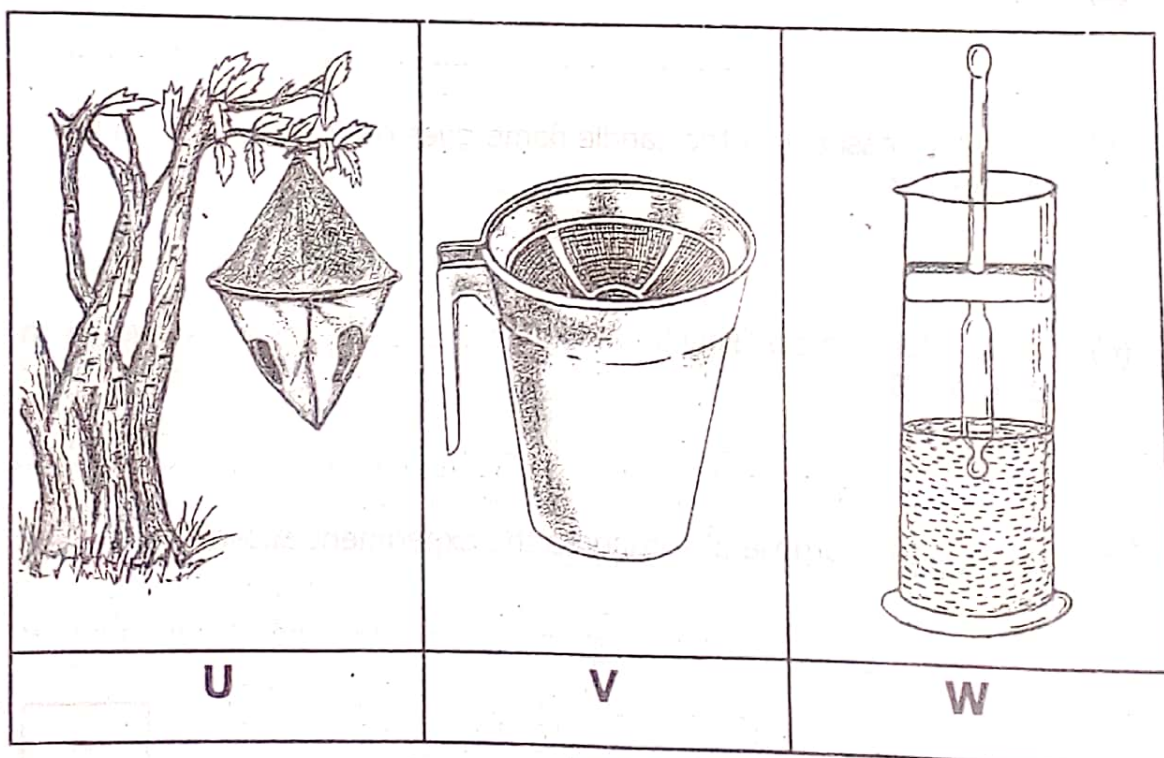
(b) Give the reason why lightning is usually seen in the sky before hearing the sound of thunder.

.....

(c) State any **one** way in which people can safeguard themselves against the dangers of lightning.

.....

52. The diagrams below show equipment that can be found on the cattle farm. Study and use them to answer the questions that follow.



(a) Name the disease in cattle which requires the use of;

(i) Equipment **U**

(ii) Equipment **V**

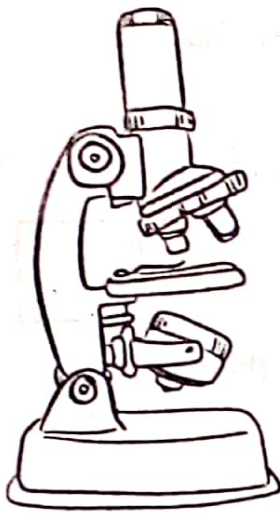
- (b) Give the importance of the equipment marked **W** to a cattle farmer.
.....
- (c) State any **one** sign of the disease that requires the use of equipment marked **V** in cows.
.....



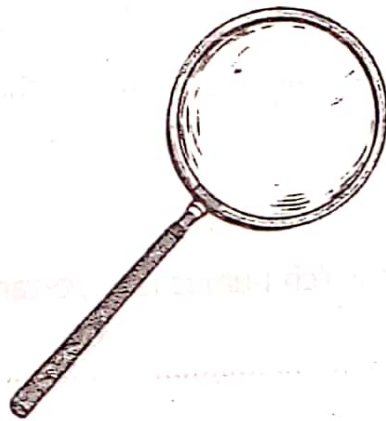
53. (a) Give any **one** way in which humus is important in the soil.
.....
- (b) State any **two** factors that lead to weathering of rocks in the environment.
(i)
(ii)
- (c) Mention any **one** way in which polythene bags affect the quality of soil.
.....

54. (a) Write down any **two** factors to consider when setting up a school.
(i)
(ii)
- (b) State any **two** ways in which school children benefit from having a school garden.
(i)
(ii)

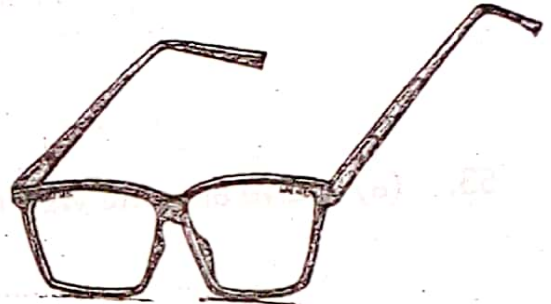
55. The diagrams below show simple optical instruments. Study and use them to answer the questions that follow.



X



Y



Z

(a) Name the optical instruments marked **X** and **Z**.

(i) **X** :

(ii) **Z** :

(b) What type of lens is used in the optical instrument marked **Y**?

.....

(c) Give any **one** use of the optical instrument marked **Z** to people.

.....

