

GRACE BOOK EXAMINATIONS BOARD

PLE PREPARATION-2025

SET TWO

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Random No.				Personal No.		

Candidate's name:

Candidate's signature:

Random number:

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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 **15 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 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 papers.

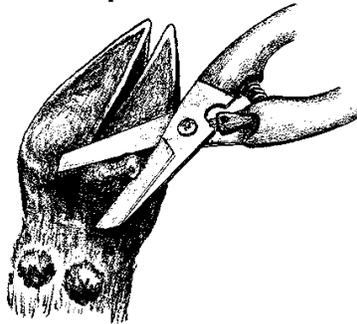
FOR EXAMINER'S USE ONLY		
QN. NO.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
TOTAL		

SECTION A: 40 MARKS

Answer **all** questions in this section

1. Name the type of teeth which enables an individual to peel sugarcane easily.
.....
2. Apart from encouraging formation of more tubers, give any one other reason why crop farmers usually heap soil around sweet potato plants.
.....
3. State any **one** way in which too much rainfall can be dangerous to plants.
.....
.....
4. Give the meaning of foreign body as used in accidents and first aid
.....
.....
5. Apart from feeding, give any **one** other way in which the mouth helps to support the life of a fish in water.
.....

The diagram below shows an activity carried out on a sheep farm. Study and use it to answer questions **6** and **7**.

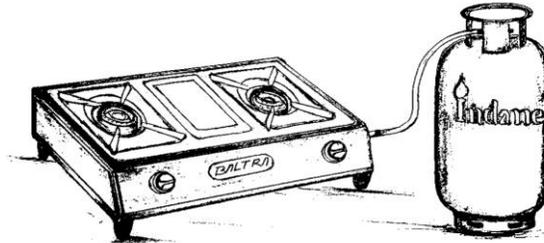


6. Name **one** bacterial disease in sheep that can be controlled by carrying out the activity shown in the diagram above.
.....

7. Apart from controlling diseases, write down **one** other importance of carrying out the activity shown above on a cattle farm.
.....
8. Name the excretory organ which is mostly affected by excessive consumption of alcohol.
.....
9. Which fungus is commonly used in the chemical process of making alcohol?
.....
10. How does regular collection and burning of rubbish help to maintain proper working of the digestive system?
.....
.....
11. Give any **one** way in which health vulnerability among babies can be minimized.
.....
.....
12. Write down any **one** way in which active smoking can affect the oral health of an individual.
.....
13. Name the method of heat transfer which helps to prevent overheating inside a Stevenson screen.
.....
14. Why is a person who has used soap advised to rinse his/her hands thoroughly before eating food?
.....
.....
15. Identify the form of energy that destroys crops in the garden when magma is released by erupting volcano to the surrounding.
.....

16. State any **one** way of controlling worm infestation in the human body.

.....
The diagram below shows an alternative source of energy that can be used instead of wood fuel for cooking at home. Study and use it to answer questions **17** and **18**.



17. Name the fossil fuel used in the above device.

.....

18. State any **one** advantage of using the above device instead of wood fuel for cooking.

.....

.....

19. Identify any **one** example of ectoparasite that can be transmitted from domestic animals to people.

.....

20. Give any **one** difference between biogas and natural gas as energy resources in the environment.

.....

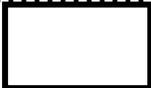
.....

21. Apart from the convex lens, name any **one** other part of the human eye that refracts light.

.....

22. In which method of extracting honey are honeycombs spun at high speed to force out honey?

.....



23. Name any **one** method of preparing food at home.
.....
24. A simple machine that requires an effort which is half the load was used to lift a load through a distance of 20 metres. Find the distance covered by the effort.
.....
25. State the main reason why a face mask is usually made of a porous material.
.....
26. Write down **one** way in which a moth is able to locate flowers at night.
.....
27. Mention any **one** reason why most cutting tools are usually made of stainless steel.
.....
28. Why is it important for a health worker to check the child health card before administering another vaccine to the child?
.....
.....
29. Apart from speed of travelling, mention any **one** other difference between sound and light.
.....
.....
30. State any **one** sign of poor personal hygiene that can be noticed during a school health parade.
.....



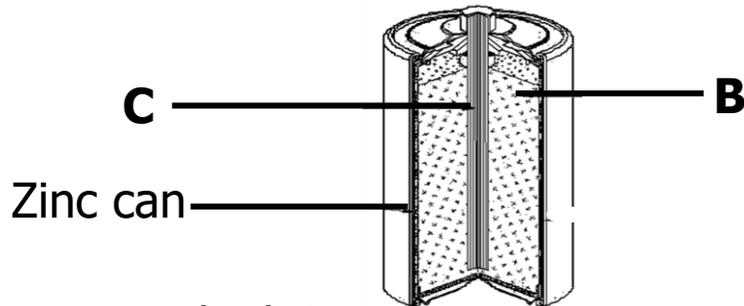
31. Name the group of simple machines to which a screwdriver belongs.

32. Write down any **one** characteristic of litter suitable to be used in a poultry house.

33. State any **one** danger of feeding farm animals on contaminated leftover food.

34. Why is it difficult to separate a mixture of steel and iron using a magnet?

Below is a diagram showing parts of a dry cell. Study and use it to answer questions **35** and **36**.



35. Name the part marked **B**.

36. Give **one** characteristic which makes part **C** able to conduct electricity yet it is a non-metal.

37. Identify the class of food which is very essential in the formation of strong bones in the body.

38. State any **one** reason why broadcasting is not a suitable method for planting trees in agroforestry.

39. Write down any **one** simple health message that can be displayed in a school compound to encourage good health habits.

.....

40. In which **one** way does HIV/AIDS weaken the body immunity of an individual?

.....



SECTION B: 60 MARKS

Answer **all** questions in this section

Questions **41** to **55** carry four marks each.

41. (a) Apart from water, name any **one** other condition necessary for rusting to occur.

.....

(b) Give any **two** reasons why rusting is categorized under chemical change.

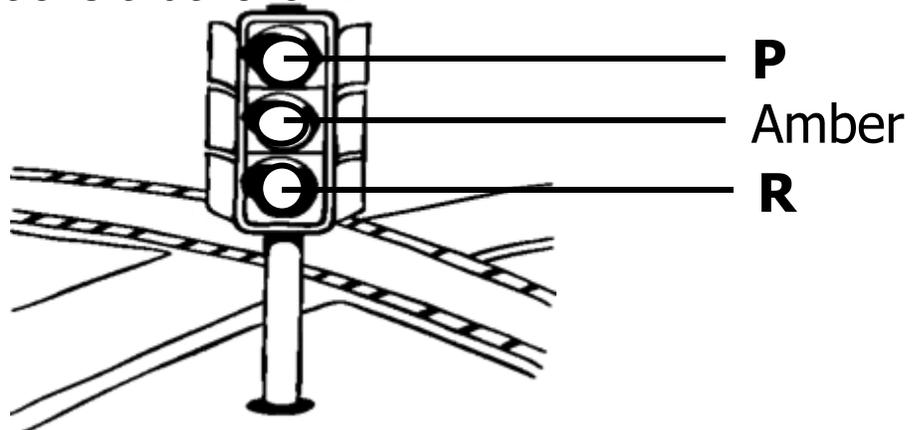
i)

ii)

(c) State any **one** way of preventing direct contact between water and metal surface.

.....

42. Below is a diagram showing traffic light system. Study and use it to answer the questions that follow.



a) Name the colour of light marked **P**.

.....

b) What does the colour marked **R** signal to the drivers on the road once it is turned on?

.....

c) State the energy change that takes place in the traffic light system shown in the diagram above.

.....

d) In which **one** way does the above traffic light system help to control road accidents?

.....

.....

43. a) State any **one** importance of rock particles in the soil.

.....

b) Mention any two ways in which soil erosion affects the environment.

i)

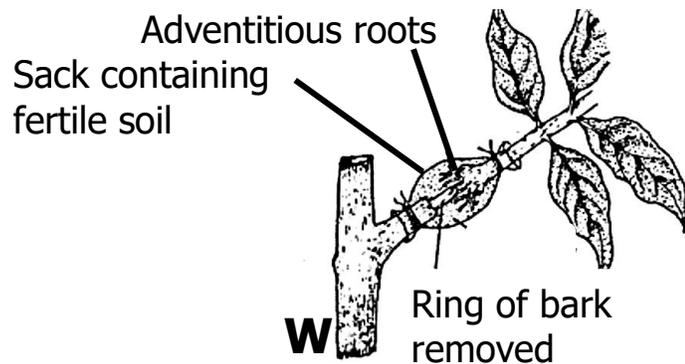
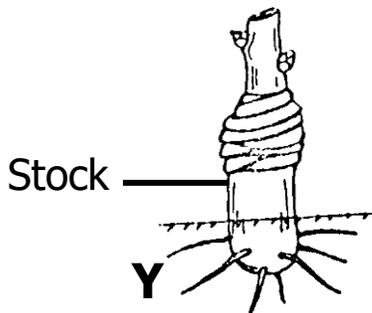
ii)

c) Apart from reducing the speed of flowing water, write down any **one** other way in which short grass control soil erosion in the school compound.

.....



44. The diagrams below show artificial methods of vegetative plant propagation. Study and use them to answer the questions that follow.



a) Name the artificial method of vegetative propagation marked **W**.

.....

b) State **one** function of the stock in the artificial vegetative propagation method marked **Y**.

.....

c) Give a reason why the ring of bark is removed from the plant branch in method **W**.

.....

d) State any **one** advantage of using the above methods when propagating fruit crops.

.....

45. a) What is meant by the term convalescent?

.....

.....

b) State any **one** condition under which a primary seven girl can be considered vulnerable.

.....

c) Give any **one** way in which a breastfeeding woman can increase milk production in her mammary glands.

.....

d) In which one way does regular physical exercises help to promote good health in a pregnant woman?

.....

46. a) State the general formular for finding volume of regular objects.

.....

b) How does expansion of water, as it freezes, affect its density?

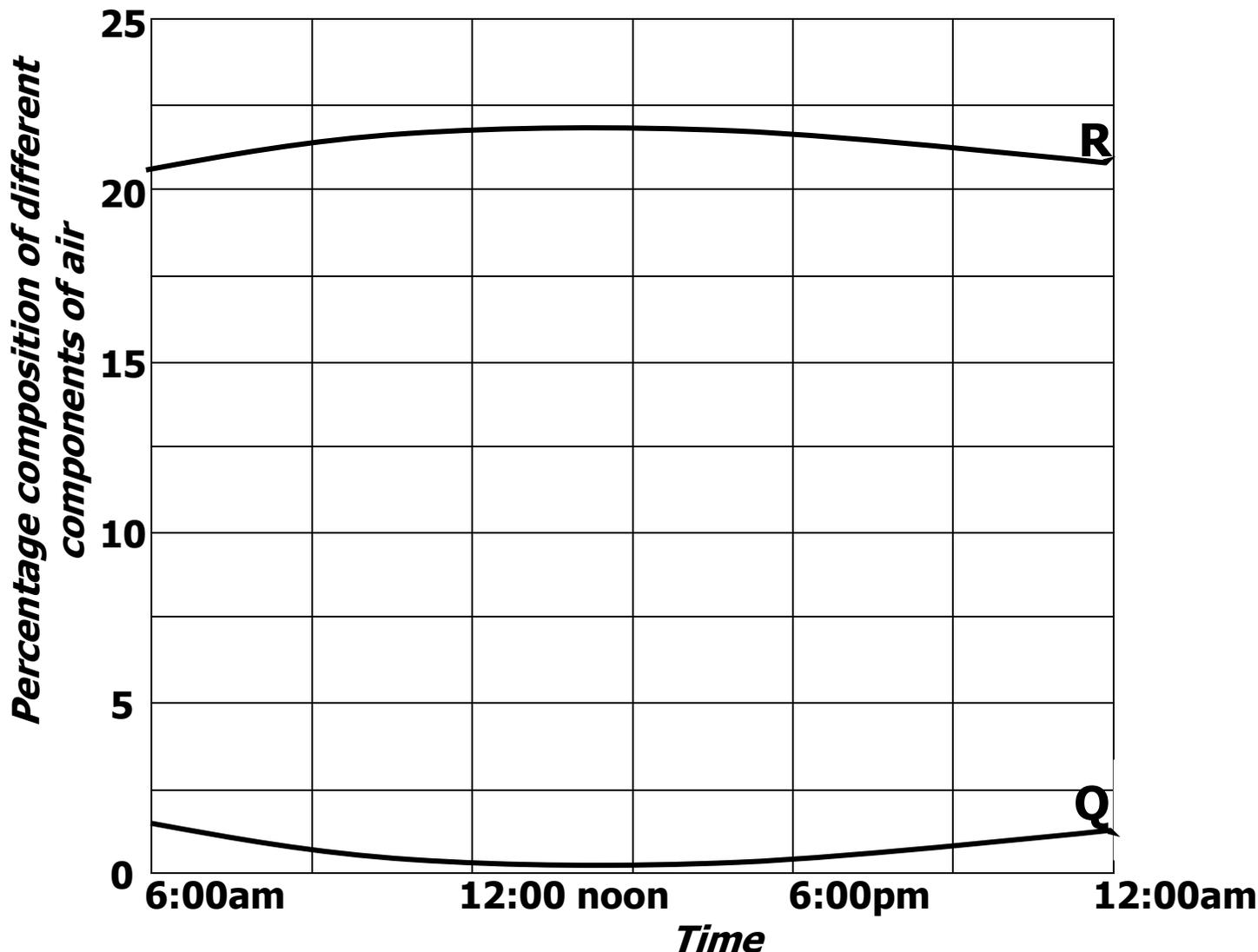
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c) A farmer bought a cuboidal water tank which is 80cm long, 60cm high and 40cm wide. Find the amount of water the tank can hold.

(2 marks)



47. The graph below shows variations in the percentage compositions of two components of air, used by plants in the environment recorded in a period of 24 hours. Study it carefully and answer the questions that follow.



- a) Identify the component of air marked **Q** on the graph.
.....
- b) Identify the plant process that requires the component of air marked **R**.
.....
- c) Name the main product formed by plants using the component of air marked **Q** in the graph above.
.....
- d) Why does percentage composition of air component **Q** increase from **6p.m.**?
.....
.....

48. a) Give the meaning of the term family planning.
.....
.....
- a) Name the group of essential drugs commonly used in family planning.
.....
 - b) How does correct condom use prevent unnecessary pregnancy in a family?
.....
.....
 - c) Mention any **one** way in which teenage pregnancy can be reduced in a community.
.....
.....

49. a) What is meant by a school health club?
.....
.....
- a) Write down any **one** activity done by a school health club to promote health of people at school.

.....
b) State any **one** importance of child-to-child programme at school.

.....
c) Mention any **one** way in which giving proper guidance and counselling is important.
.....
.....

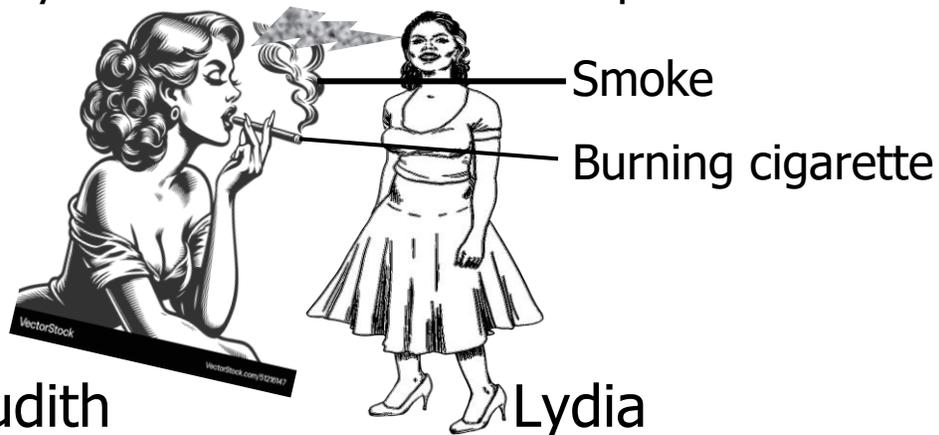


50. a) Give any **one** factor considered when choosing a good site for a nursery bed.

.....
b) Mention any **two** reasons why crop farmers first plant some seeds in a nursery bed.
.....
.....

c) How do crop farmers commonly reduce the risk of planting dormant seeds in their gardens?
.....
.....

51. The diagram below shows people, Judith and Lydia who are smoking. Study and use it to answer the questions that follow.



a) Identify the type of smoking being practiced by Lydia.
.....
.....

b) Name the plant whose leaves are usually put in the burning cigarette above.

.....

c) Which dangerous substance in the above smoke leads to addiction?

.....

d) In which one way can Lydia help Judith to stop smoking?

.....

.....



52. a) State the interdependence between honey bees and flowering plants.

.....

b) How do secondary consumers obtain energy from producers?

.....

c) Apart from bacteria, name any **one** other group of organisms that breakdown organic matter to form humus.

.....

d) State any **one** way in which lions are adapted to their mode of feeding in the environment.

.....

53. a) Apart from malaria, name any **one** other disease that can be prevented by sleeping under mosquito net.

.....

b) How is the effect of malaria to the body similar to that of bilharzia?

.....

.....

c) Why are male anopheles mosquitoes unable to spread malaria to people?

.....

d) Besides fish, name any **one** group of vertebrates that help to feed on mosquito egg and larvae.

.....

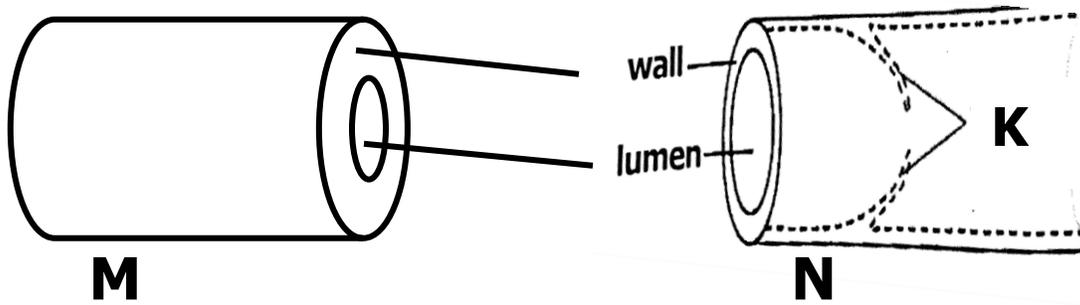
54. The sentences below show the steps carried out in an experiment to prove that air exerts pressure but in a wrong order.

- i) Remove the hand from the cardboard carefully
- ii) Fill the glass with water up to its top
- iii) Invert the glass of water carefully such that the cardboard is below the glass.
- iv) Cover the glass of water with a cardboard.

Rearrange the sentences to form a correct order of the steps.

- i)
-
- ii)
-
- iii)
-
- iv)
-

55. The diagrams below show two types of blood vessels. Study and use them to answer the questions that follow.



a) Identify the type of blood vessel marked **M**.

.....

b) State the importance of the structure marked **K** on blood vessel **N**.

.....
.....

c) In which one way is blood vessel **M** able to withstand the high pressure of blood flowing through it?

.....
.....

d) How does the size of the lumen of the blood vessels above affect the pressure of blood flowing in them?

.....
.....

THE END

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