



ORANGE GLOBAL OLYMPIAD

# SCIENCE

## Grade 6

National Level Examination  
NLE 2025

Subject Code: 

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**Total Questions:** 40

**Total Marks:** 40

**Time:** 1 hour

**DO NOT OPEN THIS BOOKLET UNTIL INSTRUCTED TO DO SO**

- All questions are compulsory.
- Read the instructions on the **ANSWER SHEET** and fill in your **NAME, CLASS** and **OTHER INFORMATION**.
- To mark your choice of answer by darkening the circles in the **ANSWER SHEET**, use a **BLUE/BLACK BALL-POINT PEN** only.
- You **MUST** record your answers on the **ANSWER SHEET** only.
- There are **40 MULTIPLE CHOICE QUESTIONS**. Each question carries one mark. Use the information provided to choose the **BEST** possible answer among the four options. On your **ANSWER SHEET** darken the circle that matches your answer.
- **$\frac{1}{2}$  MARK** will be deducted for every **WRONG ANSWER**.
- Return the **ANSWER SHEET** to the invigilator at the end of the examination.
- You are **NOT** allowed to use a calculator. You may use a ruler and spare paper for rough work.



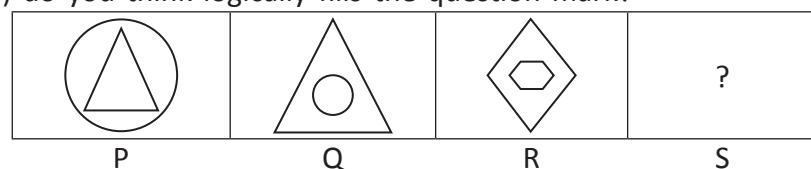
**This question paper contains a total of 40 questions divided into three sections—A, B and C. Read the instructions carefully before attempting these questions.**

## Section A (Logical Reasoning)

1. Introducing a boy, Rimmi said, "He is the son of father of my paternal uncle's daughter." How is the boy related to Rimmi?

(A) Sister-in-law (B) Cousin  
(C) Sister (D) Brother-in-law

2. Which figure (1 to 4) do you think logically fills the question mark?



(A) 3  
(C) 4

3. If 'sun' is called 'moon', 'moon' is called 'star', 'star' is called 'cloud', and 'cloud' is called 'sky', then what shines during the day?

4. Complete the given pattern.

Radio : Listener :: Film : ?

5. Choose the correct option that will continue the same pattern.

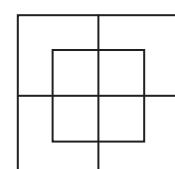
1, 4, 9, 16, 25, ?

(B) 36  
(D) 39

6. How many squares are there in the given figure?

How many squares are there in the given figure?

(A) 16 (B) 9  
(C) 10 (D) 8

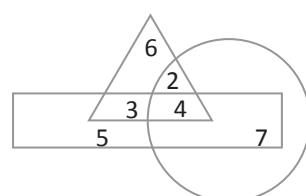


7. A person is going towards South, then turns left, then left again, then right and then right. In which direction is he now?

(A) North (B) South  
(C) East (D) West

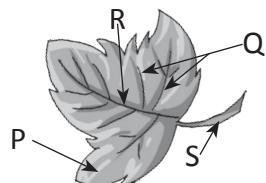
8. In the given figure, triangle represents “healthy people”, rectangle represents “old persons” and circle represents, “men”. What is the number of those men who are healthy but not old?

(A) 3 (B) 4  
(C) 6 (D) 2



**Section B (Subject Specific)**

9. Select the correct parts of the leaf from the options given below.

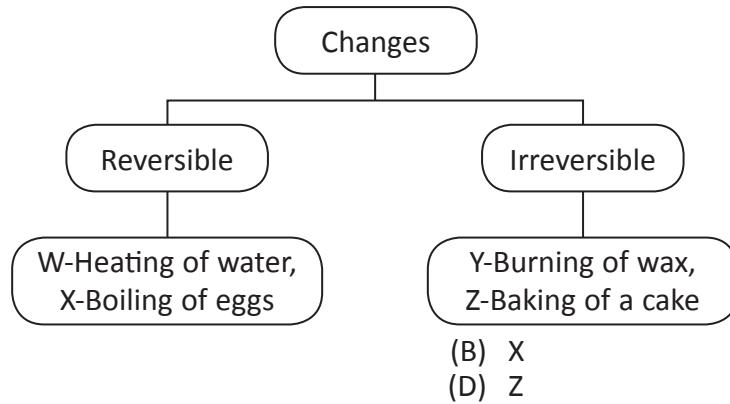


(A) P—Lamina, Q—Midrib, R—Vein, S—Petiole  
(B) P—Lamina, Q—Vein, R—Midrib, S—Petiole  
(C) P—Vein, Q—Midrib, R—Petiole, S—Lamina  
(D) P—Midrib, Q—Vein, R—Petiole, S—Lamina

10. Rajesh conducts an experiment by placing a candle in front of three pieces of cardboard, each with a single hole cut out in the centre. Cardboard pieces are aligned in such a way that he can see the light passing through the holes and the candle from the other side. What conclusion may Rajesh draw from this experiment based on his observations?

(A) Light rays are very thin.  
(B) Light rays travel in a straight line.  
(C) The eye can only see a luminous body.  
(D) None of these

11. Which change has been incorrectly classified in the following flowchart?

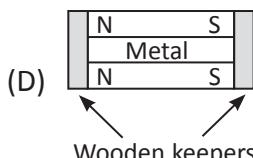
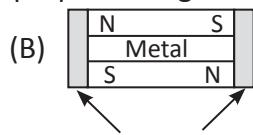
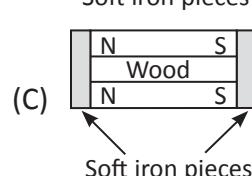
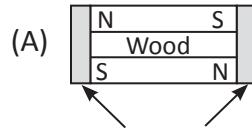


(A) W  
(B) X  
(C) Y  
(D) Z

12. Which of the following is not the characteristic of a shrub?

(A) Medium-sized plants with hard and woody stem.  
(B) Branches grow higher up on the stem and away from the ground.  
(C) Stem is hard but not very thick.  
(D) Multiple stems branching near the base.

13. Which of the following figures correctly describes the proper storage of a bar magnet?





14. Which of the following statements correctly describe the characteristic of a shadow when it falls on an opaque object?

- (i) It is black in colour.
- (ii) It has the same shape as the object.
- (iii) It has the same size as the object.
- (iv) It has the same colour as that of the object.

(A) Only (i) and (ii)

(B) Only (ii) and (iii)

(C) Only (i) and (iii)

(D) Only (ii), (iii) and (iv)

15. Aditi is looking for fabric to make a dress that she can wear in summer. Which of the following would be the best option for Aditi?

(A) Wool

(B) Cotton

(C) Jute

(D) Nylon

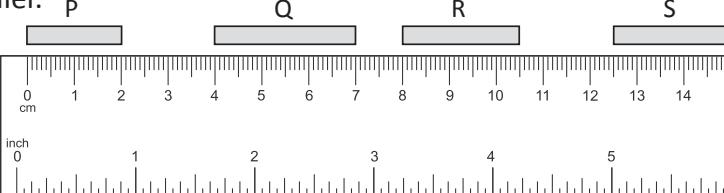
16. Four pieces of matchsticks are kept along a ruler. Which of them is exactly 3 cm in length?

(A) P

(B) Q

(C) R

(D) S



17. Pick the odd one out based on the type of materials they are made of.

(A) Desk

(B) Pencil

(C) Football

(D) Door

18. Why do hospitals use different colours for dustbins?

(A) To look attractive.

(B) To improve hospital appearance.

(C) To segregate different types of wastes.

(D) To encourage children to dispose off their wastes in dustbins.

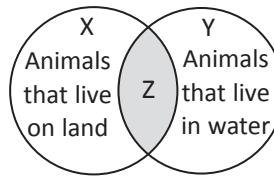
19. Which of the following animals can be placed in group Z?

(A) Bird

(B) Frog

(C) Shark

(D) Dog



20. Which of the following examples of food under P, Q and R is correct based on their nutritional benefits?

P. Supplies nutrients for body building.

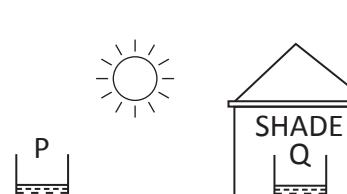
Q. Supplies energy.

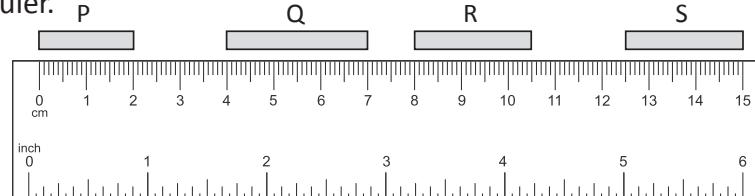
R. Supplies high dietary fibre.

P	Q	R
(A) Fish	Lettuce	Palm oil
(B) Butter	Lettuce	Fish
(C) Egg	Butter	Bean sprout
(D) Butter	Red meat	Palm oil

21. Poonam performs an experiment to observe the evaporation of water. She takes two containers, 'P' and 'Q', and fills them with exactly the same amount of water. She keeps container 'P' in the sunlight and container 'Q' in the shade as shown in the given figure.

Which of the following statements is correct?





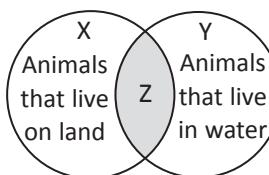
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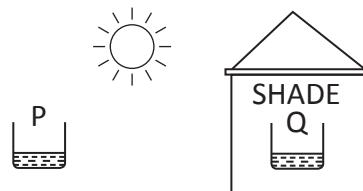
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- P. Supplies nutrients for body building.
- Q. Supplies energy.
- R. Supplies high dietary fibre.



	P	Q	R
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(B)	Butter	Lettuce	Fish
(C)	Egg	Butter	Bean sprout
(D)	Butter	Red meat	Palm oil

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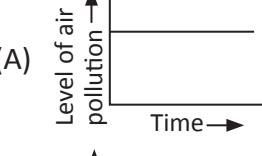


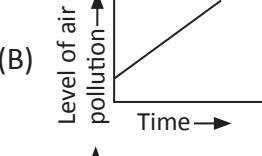
(A) Water in both the containers evaporates at the same rate.  
 (B) Water in container Q evaporates faster than in container P.  
 (C) Water in container P evaporates faster than in container Q.  
 (D) None of these

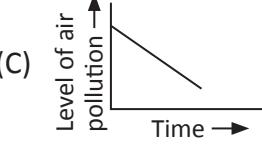
22. The axial skeleton includes the following, except \_\_\_\_\_.  
 (A) Skull (B) Ribcage  
 (C) Backbone (D) Shoulder girdle

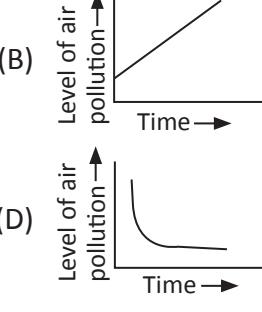
23. Read the following statements regarding the movement in an earthworm.  
 (i) It fixes the front end and releases the rear end.  
 (ii) It shortens the body and pulls the rear end forward.  
 (iii) The earthworm extends the front part of the body keeping the rear portion fixed to the ground.  
 Arrange the above statements in the correct order describing the movements in an earthworm.  
 (A) (i) → (iii) → (ii) (B) (iii) → (i) → (ii)  
 (C) (iii) → (ii) → (i) (D) (ii) → (i) → (iii)

24. In the given graph, the number of cars in a particular city increases with time is shown. Which of the following graphs correctly shows the level of air pollution in this city?

(A) 

(B) 

(C) 

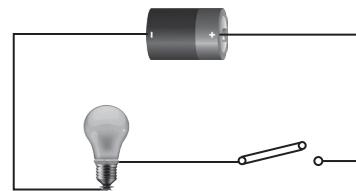
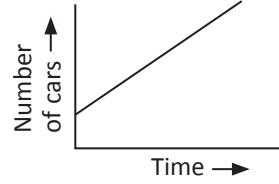
(D) 

25. Raj accidentally mixed some tea leaves with iron filings. Which method would best separate these two components?  
 (A) Sieving (B) Filtration  
 (C) By using magnet (D) Evaporation

26. For making a cartwheel, the iron rim is made slightly smaller than the wooden wheel. The iron rim is then heated before fixing on the wooden wheel. Which of the following statements is incorrect?  
 (A) Iron expands on cooling and contracts on heating.  
 (B) The expansion of iron is a reversible change.  
 (C) The expansion and contraction of iron are physical changes.  
 (D) No new substance is formed during the expansion and contraction of iron.

27. The knee joint is a type of \_\_\_\_\_.  
 (A) Pivot joint (B) Hinge joint  
 (C) Gliding joint (D) Ball and socket joint

28. Carefully observe the given circuit. Which of the following options about the circuit is correct?  
 (A) It is an open circuit.  
 (B) It is a closed circuit.  
 (C) Bulb is glowing dim.  
 (D) Current is flowing through the circuit.





**Instruction: Q. 29 to 33 are two-key based questions having four options A, B, C and D out of which TWO are correct.**

29. Aarti conducted an experiment in which she took a green leaf and placed it in boiling water. Afterward, she boiled the leaf in alcohol and then placed it on a plate. She poured a few drops of iodine solution over the leaf. Based on this procedure, which of the following observations will Aarti make?

(A) The leaf turned red. (B) The leaf turned blue-black.  
(C) The leaf contains proteins. (D) The leaf contains starch.

30. A community collected different types of garbage over a month:

(i) Organic waste: 240 kg (ii) Plastic waste: 180 kg  
(iii) Paper waste: 120 kg (iv) Metal waste: 60 kg

Select the correct statements based on the above information.

(A) The total amount of garbage collected by the community in one month is 600 kg.  
(B) Plastic waste is collected the least.  
(C) Organic waste is collected the most.  
(D) The total amount of organic and paper waste is 320 kg.

31. Which of the following mixtures can be separated by the method shown in the given figure?



(A) Oil and water (B) Sand and water  
(C) Salt and water (D) Chalk powder and water

32. In which of the following plants is the root edible?

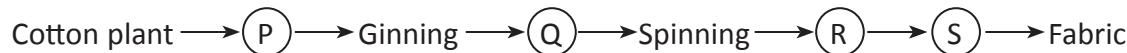
(A) Radish (B) Potato  
(C) Carrot (D) Brinjal

33. The air around us allows us to see clearly. However, a wooden door completely blocks our view. This is because

(A) The air is transparent. (B) The wooden door is rough.  
(C) The air exerts pressure. (D) The wooden door is opaque.

### Section C (Competency Enhancement)

34. For the production of cotton fabric, the following steps are performed. Identify P, Q, R and S from the options.

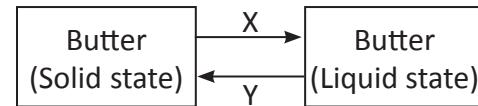


	<b>P</b>	<b>Q</b>	<b>R</b>	<b>S</b>
(A)	Boll	Fibre	Yarn	Weaving
(B)	Fibre	Boll	Weaving	Yarn
(C)	Yarn	Fibre	Boll	Weaving
(D)	Boll	Yarn	Fibre	Weaving

35. The given diagram represents the change that occurs in butter.

Identify 'X' and 'Y' that cause change in the state of butter.

- (A) X – Heat lost, Y – Heat gained
- (B) X – Heat gained, Y – Heat lost
- (C) X – Release of energy, Y – Absorption of energy
- (D) X – Decrease in temperature, Y – Increase in temperature



36. Which of the following is true about air?

- (i) Air is a mixture of several gases.
- (ii) Air exerts pressure.
- (iii) The composition of air is constant in all places.

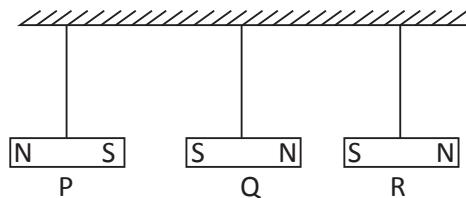
(A) Only (i) and (ii)	(B) Only (ii) and (iii)
(C) Only (i) and (iii)	(D) (i), (ii) and (iii)

37. Which of the following statements is the primary function of the roots of a plant?

(A) Preparation of food	(B) Transport of carbon dioxide
(C) Transport of water and minerals	(D) None of these

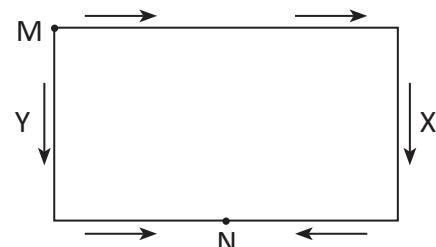
38. Three magnets P, Q and R were hung on a wall as shown below. Identify their movements from the options provided.

- (A) They will remain in the same position.
- (B) They will start rotating.
- (C) All magnets will repel each other.
- (D) Magnet Q will move towards magnet R.



39. Two boys, Raj and Amit, start from point M and reach point N at same time. Raj moves along M-X-N, while Amit moves along M-Y-N. Which statement is correct?

- (A) Amit covered more distance with slower speed.
- (B) Raj covered less distance with slower speed.
- (C) Amit covered more distance with faster speed.
- (D) Raj covered more distance with faster speed.



40. Match the Column I with Column II and select the correct option.

Column I		Column II	
p.	Melting	(i)	Water → Water vapour
q.	Evaporation	(ii)	Water vapour → Water
r.	Freezing	(iii)	Ice → Water
s.	Condensation	(iv)	Water → Ice

- (A) p-(iii), q-(i), r-(iv), s-(ii)
- (B) p-(ii), q-(iii), r-(iv), s-(i)
- (C) p-(iii), q-(iv), r-(ii), s-(i)
- (D) p-(iv), q-(ii), r-(i), s-(iii)

