

CLASS 10 | SESSION 2026-27

Total Questions : 50 Time : 1 hr.

PATTERN & MARKING SCHEME

Section	No. of Questions	Marks per Ques.	Total Marks
(1) Logical Reasoning	15	1	15
(2) Subject Reasoning	20	1	20
(3) Everyday Application	10	1	10
(4) Achievers Section	5	3	15
Total	50	--	60

SYLLABUS

- Section 1** Verbal and Non-Verbal Reasoning.
- Section 2** Core Science concepts and their applications.
- Section 3** Everyday application of Science.
- Section 4** Higher Order Thinking Skills (HOTS) questions.

HOW TO USE THIS PAPER

- Every question is followed immediately by its answer.
- Try each question on your own first, then check the green answer card.
- Use the answer key at a glance on the last page for a quick revision.

TEST DAY INSTRUCTIONS

- The paper has 50 questions carrying a total of 60 marks.
- All questions are compulsory and there is no negative marking.
- Duration is 1 hour - aim for about 60 seconds per question.
- Read every question carefully before choosing your option.

SCORING STRATEGY

- Attempt the Logical Reasoning section first - it is the quickest to score.
- Take the 3-mark Achievers questions after finishing the 1-mark questions.
- Revisit every skipped question during the last ten minutes.

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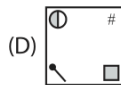
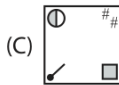
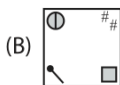
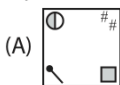
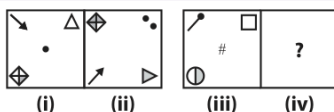
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QUESTION 1

Logical Reasoning · Logical Reasoning

1. There is a certain relationship between figures (i) and (ii). Establish the similar relationship between figures (iii) and (iv) by selecting a suitable figure from the options that would replace the (?) in Fig. (iv).



ANSWER & STEP-BY-STEP EXPLANATION

Correct: (A)

- Identify the underlying pattern and concepts under Pattern recognition & spatial ordering.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (A) satisfies all required conditions and yields the correct result.

QUESTION 2

Logical Reasoning · Logical Reasoning

2. P and Q both are children of R. If R is the mother of P, P is the son of R but Q is not the daughter of R, then how are Q and P related?
- (A) Q is the cousin of P (B) Q is the niece of P
(C) Q is the nephew of P (D) Q is the brother of P

ANSWER & STEP-BY-STEP EXPLANATION

Correct: (D)

- Identify the underlying pattern and concepts under Analytical grouping & Venn classification.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (D) satisfies all required conditions and yields the correct result.

QUESTION 3

Logical Reasoning · Science Reasoning

3. The positions of how many alphabets will remain unchanged, if each of the alphabets in the word MIRAGE is arranged in alphabetical order from left to right?
- (A) None (B) One (C) Two (D) More than two

ANSWER & STEP-BY-STEP EXPLANATION

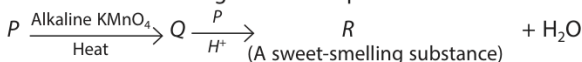
Correct: (A)

- Identify the underlying pattern and concepts under Physics: Motion, force & energy principles.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (A) satisfies all required conditions and yields the correct result.

QUESTION 4

Science · Science Reasoning

4. Consider the following reaction sequence :



R gives back P and sodium salt of Q on saponification. Select the correct statement about P, Q and R from the following.

- (A) P is CH_4 and Q is used in making perfumes.
(B) 5–8% solution of P in water is called vinegar.
(C) Q is CH_3COOH and R is used in making perfumes and as flavouring agents.
(D) R undergoes dehydration reaction in presence of conc. H_2SO_4 to give ethene.

ANSWER & STEP-BY-STEP EXPLANATION

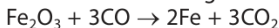
Correct: (C)

- Identify the underlying pattern and concepts under Chemistry: Matter, atomic structure & reactions.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (C) satisfies all required conditions and yields the correct result.

QUESTION 5

Science · Science Reasoning

5. Which of the following statements about the given reaction is correct?



- (A) Fe_2O_3 is getting oxidised to Fe. (B) Fe_2O_3 is acting as a reducing agent.
(C) CO is acting as a reducing agent. (D) CO is getting reduced to CO_2 .

ANSWER & STEP-BY-STEP EXPLANATION

Correct: (C)

- Identify the underlying pattern and concepts under Biology: Cell structure & life processes.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (C) satisfies all required conditions and yields the correct result.

QUESTION 6

Science · Science Reasoning

6. Which one of the given statements is correct?

- (A) Among the copper wires of length and cross-section area as (l, a) , $(2l, a/2)$ and $(l/2, 2a)$, wire with $(2l, a/2)$ values has minimum resistance.
(B) If the length of wire is increased by 25% and its area of cross-section is decreased by 75%, then its resistivity will decrease by 80% of its initial value.
(C) Resistivity of an alloy is generally higher than that of its constituent metals.
(D) It is not possible to have two wires of same length, one of copper and the other one of iron having the same resistance at same temperature.

ANSWER & STEP-BY-STEP EXPLANATION

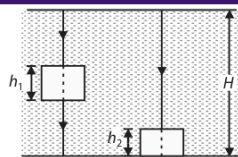
Correct: (C)

- Identify the underlying pattern and concepts under Environmental science & natural resources.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (C) satisfies all required conditions and yields the correct result.

QUESTION 7

Science · Science Reasoning

7. Two rays of light are incident normally on water. Both the rays pass through glass slabs of different heights, as shown in the given figure. Refractive indices of water and glass are $4/3$ and $3/2$ respectively. If c is the speed of light in vacuum, then the time difference between the rays of light to reach the bottom is



- (A) $\frac{H}{2c}$ (B) $\frac{8H}{9c}$ (C) $\frac{H-h_1-h_2}{3c}$ (D) $\frac{h_1-h_2}{6c}$

ANSWER & STEP-BY-STEP EXPLANATION

Correct: (D)

- Identify the underlying pattern and concepts under Physics & Chemistry application problems.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (D) satisfies all required conditions and yields the correct result.

QUESTION 8

Science · Science Reasoning

8. Select the option that correctly fills in the blanks.

In generative fertilisation, a (i) fuses with a (ii). (i) and (ii) respectively are

- (A) Polar nucleus, Secondary nucleus (B) Male gamete, Polar nucleus
(C) Male gamete, Female gamete (D) Female gamete, Secondary nucleus.

ANSWER & STEP-BY-STEP EXPLANATION

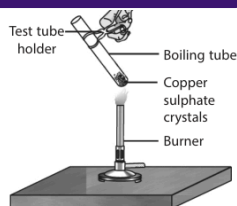
Correct: (C)

- Identify the underlying pattern and concepts under Biological systems & organism adaptations.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (C) satisfies all required conditions and yields the correct result.

QUESTION 9

Achievers Section · Achievers Section

9. Observe the following experimental set-up carefully and select the correct statement from the following.
- The blue colour of copper sulphate crystals changes to white and water droplets appear on the upper cooler part inside the test tube.
 - The blue colour of copper sulphate crystals changes to pale-yellow and water droplets appear on the upper cooler part outside the test tube.
 - If we put 2-3 drops of water on the anhydrous salt (which is obtained after heating), white crystals of copper sulphate appears.
 - One molecule of hydrated copper sulphate contains seven molecules of water.



ANSWER & STEP-BY-STEP EXPLANATION

Correct: (A)

- Identify the underlying pattern and concepts under HOTS: Advanced scientific experiment analysis.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (A) satisfies all required conditions and yields the correct result.

QUESTION 10

Achievers Section · Achievers Section

10. Correct the following statements by replacing the underlined terms (wherever necessary) and select the correct option.

- Chlamydomonas reproduces by fragmentation.
- Grafting is performed between two plants of closely related monocot varieties having vascular cambia.
- Wind pollinated flowers are small in size.

(i)	(ii)	(iii)
(A) <i>Plasmodium</i>	Monocot	Small
(B) <i>Microstomum</i>	Dicot	Large
(C) <i>Spirogyra</i>	Dicot	Small
(D) <i>Planaria</i>	Monocot	Large

ANSWER & STEP-BY-STEP EXPLANATION

Correct: (C)

- Identify the underlying pattern and concepts under HOTS: Multi-statement scientific inference.
- Applying the principles of Science for Class 10, evaluate the given options systematically.
- Option (C) satisfies all required conditions and yields the correct result.

ANSWER KEY AT A GLANCE

Q1 (A)	Q2 (D)	Q3 (A)	Q4 (C)	Q5 (C)	Q6 (C)	Q7 (D)	Q8 (C)	Q9 (A)	Q10 (C)
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REVISION NOTES

- Attempt the section you are strongest in first - it is the quickest to score.
- Aim for about 60 seconds per question and keep an eye on the clock.
- Re-read the question before choosing an option; watch for 'NOT' and 'EXCEPT'.
- Skip and mark anything you are unsure of, then revisit it in the last ten minutes.
- Practise chapter-wise to build both speed and accuracy before the exam.

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