

Worked answers

Questions 1 to 5 of 15 | Original AISEA starter pack

Try the questions before reading these explanations. Use the topic links to practise again.

Introductory practice, not an official company paper or a prediction of placement outcomes.

01 Percentages

Answer B: 84

35% of 240 = $35 / 100 \times 240 = 84$ students. The percentage is applied to all 240 invited students.

More practice: [Percentages](#)

02 Successive percentages

Answer C: Rs. 1,320

After the discount: $1,500 \times 0.80 = \text{Rs. } 1,200$. Tax is $1,200 \times 0.10 = \text{Rs. } 120$. The final price is $1,200 + 120 = \text{Rs. } 1,320$. Tax is applied to the discounted price.

More practice: [Successive percentages](#)

03 Ratio and proportion

Answer A: 24

There are $3 + 5 = 8$ equal parts. Each part is $64 / 8 = 8$ workbooks. The smaller group receives $3 \times 8 = 24$ workbooks.

More practice: [Ratio and proportion](#)

04 Work rates

Answer B: 15 hours

The rate is $180 / 6 = 30$ booklets per hour. Producing 450 booklets takes $450 / 30 = 15$ hours.

More practice: [Work rates](#)

05 Number series

Answer B: 159

Apply the stated rule to 79: $79 \times 2 + 1 = 159$. The same rule gives 9 from 4, 19 from 9, and so on.

More practice: [Number series](#)

Worked answers

Questions 6 to 10 of 15 | Original AISEA starter pack

06 Deductive reasoning

Answer C: No tutors are visitors.

Every tutor belongs to the mentor group. The mentor and visitor groups do not overlap, so a tutor cannot be a visitor. The statements do not say that every mentor is a tutor.

More practice: [Deductive reasoning](#)

07 Direction sense

Answer B: 10 metres

The two walks form perpendicular sides of a right triangle. The straight-line distance is the square root of $(6 \times 6 + 8 \times 8) =$ the square root of $100 = 10$ metres. The distance walked, 14 metres, is different.

More practice: [Direction sense](#)

08 Ordering

Answer A: Asha

The first condition puts Asha before Ben. The second puts Ben before Cyra. Together, the order is Asha, Ben, Cyra, so Asha is first.

More practice: [Ordering](#)

09 Subject and verb agreement

Answer C: is

The subject is the singular noun 'list', so the verb must be 'is'. The plural noun 'topics' belongs to the phrase 'of workshop topics' and does not determine the verb.

More practice: [Subject and verb agreement](#)

10 Reading comprehension

Answer B: The workshop starts one hour later in the same hall.

Moving the start from 2 pm to 3 pm makes it one hour later. 'The venue remains Hall B' confirms that the hall is unchanged. The notice gives no duration.

More practice: [Reading comprehension](#)

Worked answers

Questions 11 to 15 of 15 | Original AISEA starter pack

11 Synonyms

Answer D: Brief

A concise summary expresses the key information briefly and clearly. 'Brief' is the closest option; concise does not mean vague or careless.

More practice: [Synonyms](#)

12 Sentence correction

Answer A: Each of the participants has a workbook.

'Each' takes a singular verb, so 'has' is correct. In the other options, 'have', 'are' and 'were' are plural forms; the corresponding singular forms would be 'has', 'is' and 'was'.

More practice: [Sentence correction](#)

13 Algorithms

Answer C: Binary search

Binary search compares the target with the middle element and continues in the relevant half. Linear search checks elements in sequence. Bubble sort and selection sort reorder elements rather than search for a target.

More practice: [Algorithms](#)

14 Databases

Answer D: 3

COUNT(*) counts rows, including rows that contain NULL values. There are three rows, so it returns 3. COUNT(name) would count only rows with a non-NULL name.

More practice: [Databases](#)

15 Data structures

Answer B: 20

FIFO means first in, first out. The queue becomes [10, 20], then [20] after removing 10. Adding 30 gives [20, 30]. The next item removed is 20.

More practice: [Data structures](#)

Free to print and share unmodified for teaching and personal study. Keep the AISEA credit and version; a website link is optional. This permission applies to this starter pack only.

[Web questions and explanations](#) | [Report a correction](#)