

SCO INTERNATIONAL OLYMPIAD

CLASS 10 SYLLABUS

SCO International Mental Ability Olympiad

Designed for Grade 10 reasoning skill development, logic practice, analytical thinking and Olympiad readiness.

- grade-fit reasoning pathway for secondary-level learners globally
- covers verbal, non-verbal, quantitative, data and spatial reasoning skills
- supports preparation through examples, case-based practice and higher-order challenge tasks

Coding	Series	Syllogism	Puzzles	Calendar
Clock	Analogy	Cubes	Blood Relations	Data Logic

Official Syllabus

SCO International Mental Ability Olympiad - Class 10

This syllabus is designed for Grade 10 learners preparing for the SCO International Mental Ability Olympiad. It builds logical reasoning, rule discovery, spatial reasoning, data interpretation, verbal reasoning, quantitative problem-solving and case-based thinking.

Recommended PDF font standards: H2 16 pt, H3 13 pt, body 10 pt, and table text 10 pt. These sizes are used in this Word file for clean PDF conversion.

Chapter-wise Official Syllabus

Chapter No.	Chapter Name	Learning Focus	Assessment Skills
1	Coding - Decoding and Symbol Coding	Decode letter, number, mirror-image and mixed-symbol codes; identify rules and construct coded words.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
2	Series Completion	Complete number, letter and mixed series using differences, products, squares, primes, alternating rules and position logic.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
3	Alphabet Test and Word Formation	Use alphabet order, letter gaps, dictionary order, meaningful-word formation and position changes.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
4	Mathematical Operations	Interpret newly defined operations, operator replacement, arithmetic logic and equation-based reasoning.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
5	Puzzle Test and Arrangement	Solve linear, circular, ranking and condition-based arrangement puzzles with systematic elimination.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
6	Calendar and Clock Test	Determine days, dates, leap-year effects, time intervals, clock angles and schedule reasoning.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
7	Number - Ranking - Time Sequence	Rank objects or persons, compare time/distance/speed data and use sequence-position logic.	Concept recognition, rule discovery, multi-step reasoning, accuracy under

Chapter No.	Chapter Name	Learning Focus	Assessment Skills
			time, and explanation-based thinking.
8	Arithmetical Reasoning	Apply ratios, averages, heads-legs, age, profit/loss and simple quantitative reasoning in verbal form.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
9	Syllogism and Logical Conclusions	Draw valid conclusions from statements using Venn-style reasoning and avoid common fallacies.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
10	Non-Verbal Series and Rotation	Recognize rotations, reflections, orientation changes and pattern evolution in visual sequences.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
11	Analogy and Classification	Identify relationship patterns and distinguish odd terms based on function, structure or logic.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
12	Blood Relations	Trace family relations across generations using direct and indirect clues.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
13	Cubes and Dices Test	Analyze painted cubes, cube cuts, dice positions, opposite faces and unfolded patterns.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
14	Statements of Logical Reasoning	Evaluate assumptions, arguments, causes, effects and statement-conclusion relationships.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
15	Images, Embedded Figures and Matrix Reasoning	Identify embedded figures, visual coding matrices and spatial patterns.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
16	Data Sufficiency	Judge whether one or more statements provide enough information to answer a question.	Concept recognition, rule discovery, multi-step reasoning, accuracy under

Chapter No.	Chapter Name	Learning Focus	Assessment Skills
			time, and explanation-based thinking.
17	Case-Based Reasoning	Use tables, real-life schedules, maps, scores and coded data to answer connected questions.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.
18	Achievers Section	Attempt multi-step, high-difficulty reasoning problems that combine two or more skill areas.	Concept recognition, rule discovery, multi-step reasoning, accuracy under time, and explanation-based thinking.

Learning Outcomes

Decode words, symbols and numbers using consistent transformation rules.

Identify number, letter and visual sequences using forward and reverse reasoning.

Solve calendar, clock, ranking, arrangement and blood-relation problems accurately.

Use tables, diagrams and case data to draw valid conclusions.

Differentiate between guaranteed conclusions, assumptions and possibilities.

Attempt high-difficulty Achievers questions involving combined reasoning models.

Suggested Paper Design

Section	Question Range	Focus	Marks
General Reasoning	Q1-Q20	Core coding, series, analogy, classification, arrangements	1 mark each
Data/Table Case Study	Q21-Q30	Tables, schedules, family data, coding grids and practical reasoning	1 mark each
Statement/Data Sufficiency	Q31-Q40	Conclusion testing, sufficiency and logic validation	1 mark each
Achievers Section	Q41-Q50	Multi-step reasoning and advanced integrated problems	2 marks each

Preparation Guidance

Practice one reasoning type at a time before moving to mixed sets.

For coding-decoding, write the alphabet positions first and check whether the rule is shift, mirror, reverse, alternate or mixed.

For puzzles and arrangements, create a small table or position grid before answering.

For data sufficiency, avoid solving more than necessary; decide whether the information is sufficient for a unique answer.

For non-verbal reasoning, track transformation by step: rotation, reflection, size, shade, count, direction or position.

Revise explanations, not only final answers, because reasoning accuracy improves through rule recognition.