School Connect Online

SCO INTERNATIONAL OLYMPIAD

CLASS 3 CODING OLYMPIAD

Solved question paper for students, teachers, schools, and parents

Designed from Class 3 coding concepts and aligned with SCO's platform flow for guided preparation, practice, reporting, and future-ready digital skills.

- age-fit coding and computational-thinking practice for Class 3 learners globally
- section-wise pathways across Coding Fundamentals, Logic and Reasoning, Simple Game Creation, and Achievers Practice
- answer key, explanations, correction notes, and revision support for confident olympiad preparation

Coding	Logic	Scratch	Game	Robotics Patterns
Algorithms	Debugging	Sprites	Reasoning	Practice

School Connect Online

Solved Question Paper

SCO International Coding Olympiad - Class 3 - Set A

This solved question paper is designed for students, teachers, and schools preparing for the SCO International Coding Olympiad. It presents every question in a structured block with the correct answer and a learning-focused explanation. Visual prompts are included only where they support interpretation of the question.

Name	Registration ID	Contact No.
.....	.....	.....

Class	Question Paper Set	Total Questions	Time
3	A	40	1 hour

Guidelines for the Candidate

Read before attempting the paper

- Before the exam begins, complete the OMR/personal information section carefully.
- Write the name, school code, class, roll number/registration details, and contact number clearly where required.
- The paper contains 40 questions divided into four sections: Fundamentals of Coding, Logic and Reasoning, Simple Game Creation, and Achievers Section.
- Each question has exactly one correct answer in the corrected final paper.
- Use an HB pencil or blue/black ballpoint pen to mark the answer as instructed by the school or examination system.
- Calculator use is not required. Focus on logic, sequence, pattern recognition, and coding concepts.
- Use the solved answers and explanations after attempting the paper for self-checking and revision.

Paper Structure

Section 1 builds coding vocabulary and Scratch basics. Section 2 develops pattern and robot-reasoning skills. Section 3 focuses on simple game creation. Section 4 includes higher-level challenge questions for achievers.

School Connect Online

Section: Fundamentals of Coding

Question block with answer and explanation

Q1

What is coding?

A. Drawing pictures
B. Writing instructions for computers
C. Playing games
D. Cooking food

Correct Answer: B. Writing instructions for computers

Explanation: Coding means writing clear instructions that a computer can follow to perform a task.

Q2

Which of the following is an example of a coding platform?

A. Microsoft Word
B. Scratch
C. Instagram
D. Calculator

Correct Answer: B. Scratch

Explanation: Scratch is a coding platform where students can create animations, stories, and games using blocks.

Q3

What is a program?

A. A collection of pictures
B. A group of instructions written in code
C. A music playlist
D. A type of computer

Correct Answer: B. A group of instructions written in code

Explanation: A program is a set of coded instructions that tells a computer what steps to perform.

Q4

What does a loop in coding do?

A. Stops the program
B. Repeats a set of instructions
C. Creates a new file
D. Deletes code

Correct Answer: B. Repeats a set of instructions

Explanation: A loop is used when the same instruction or group of instructions must run again and again.

Q5

Which symbol in Scratch is used to start a program?

A. Red stop sign
B. Green flag
C. Yellow circle
D. Blue triangle

Correct Answer: B. Green flag

Explanation: In Scratch, clicking the green flag is commonly used to start a project or script.

Q6 **What is debugging?**

A. Fixing mistakes in code
B. Creating new games
C. Designing new sprites
D. Writing new code

Correct Answer: A. Fixing mistakes in code

Explanation: Debugging means finding and fixing mistakes so the program works as expected.

Q7 **What is a sprite in Scratch?**

A. A drink
B. A picture frame
C. A character or object in a program
D. A drawing tool

Correct Answer: C. A character or object in a program

Explanation: A sprite is a character or object that can move, speak, change appearance, or interact in a Scratch project.

Q8 **What is an algorithm?**

A. A type of computer
B. A list of steps to solve a problem
C. A video game
D. A tool to draw shapes

Correct Answer: B. A list of steps to solve a problem

Explanation: An algorithm is a step-by-step method for solving a problem or completing a task.

Q9 **What is the purpose of coding?**

A. To draw pictures only
B. To tell computers what to do
C. To play music only
D. To write books only

Correct Answer: B. To tell computers what to do

Explanation: Coding is used to give instructions to computers so they can perform useful actions.

Q10 **What is a conditional statement in coding?**

A. A command that runs only if a condition is true
B. A repeating action
C. A drawing tool
D. A type of bug

Correct Answer: A. A command that runs only if a condition is true

Explanation: A conditional statement helps a program make decisions, such as running one action only when a condition is true.

School Connect Online

Section: Logic and Reasoning

Question block with answer and explanation

Q11 **What comes next in this pattern? 5, 10, 15, 20, ____**

A. 22
B. 25
C. 30
D. 35

Correct Answer: B. 25

Explanation: The pattern increases by 5 each time, so after 20 comes 25.

Q12 **If a robot moves forward 3 steps, backward 1 step, and forward 2 steps, how far is it from the start?**

A. 3 steps
B. 4 steps
C. 5 steps
D. 6 steps

Correct Answer: B. 4 steps

Explanation: The total movement from the start is 3 - 1 + 2 = 4 steps forward.

Q13 **Which of these is an odd number?**

A. 8
B. 12
C. 15
D. 20

Correct Answer: C. 15

Explanation: 15 is odd because it is not divisible by 2.

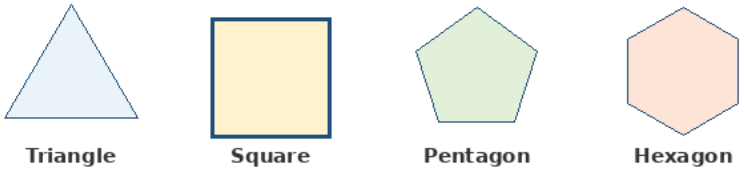
Q14 **Look at the colour pattern. What comes next?**

A. Blue circle
B. Red circle
C. Green circle
D. Yellow circle

Correct Answer: A. Blue circle

Explanation: The pattern alternates blue, red, blue, red, so the next shape is blue.

Q15 **Which shape has the fewest sides?**



A. Triangle
B. Square
C. Pentagon
D. Hexagon

Correct Answer: A. Triangle

Explanation: A triangle has 3 sides, which is fewer than a square, pentagon, or hexagon.

Q16 **What is the result of 6 + 7?**

A. 11
B. 12
C. 13
D. 14

Correct Answer: C. 13

Explanation: 6 + 7 = 13.

Q17 **If a number is divisible by 2, it is called _____.**

A. Odd
B. Even
C. Prime
D. Composite

Correct Answer: B. Even

Explanation: An even number is a number that can be divided by 2 without a remainder.

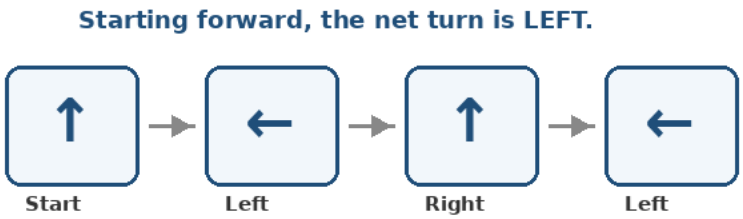
Q18 **What is 10 minus 4?**

A. 6
B. 5
C. 4
D. 7

Correct Answer: A. 6

Explanation: 10 - 4 = 6.

Q19	**Which of these describes a square?** A. A shape with 4 equal sides B. A shape with 3 sides C. A shape with 5 sides D. A shape with 6 sides **Correct Answer: A. A shape with 4 equal sides** Explanation: A square is a four-sided shape with all sides equal.

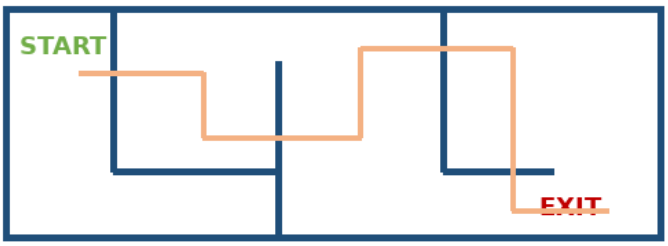
Q20	**A robot starts facing forward. It turns left, then right, and then left again. Which way is it facing relative to the original direction?**  A. Left B. Right C. Backward D. Forward **Correct Answer: A. Left** Explanation: Left, then right returns it to forward, and one more left turn makes it face left.

School Connect Online

Section: Simple Game Creation

Question block with answer and explanation

Q21 **What is the goal of a maze game?**



A. To color the maze
B. To find the exit of the maze
C. To erase the maze
D. To draw the maze

Correct Answer: B. To find the exit of the maze

Explanation: In a maze game, the player usually guides a character from the start point to the exit.

Q22 **Which block category in Scratch is used to make a sprite move?**

A. Motion block
B. Control block
C. Events block
D. Sound block

Correct Answer: A. Motion block

Explanation: Motion blocks help sprites move, turn, and change their position on the stage.

Q23 **What happens when the "forever" block is used in Scratch?**

A. The action repeats until the program stops
B. The program ends immediately
C. The sprite disappears
D. Nothing happens

Correct Answer: A. The action repeats until the program stops

Explanation: The forever block keeps repeating the blocks inside it until the project is stopped.

Q24 **What can you use to make a sprite jump?**

A. Motion blocks
B. Sound blocks
C. Costume blocks
D. Control blocks only

Correct Answer: A. Motion blocks

Explanation: A jump is usually created by changing the sprite's vertical position using motion-related instructions.

School Connect Online

Q25 **What is a stage in Scratch?**

A. The background area where the project runs
B. A sprite's costume
C. A list of instructions
D. A type of loop

Correct Answer: A. The background area where the project runs

Explanation: The stage is the main area where sprites appear and the project plays.

Q26 **Which block is used to repeat an action in Scratch?**

A. Repeat block
B. Sound block
C. Costume block
D. Events block

Correct Answer: A. Repeat block

Explanation: The repeat block runs the same instructions multiple times.

Q27 **What is a costume in Scratch?**

A. A sprite’s appearance
B. A type of loop
C. A command for sound
D. A background

Correct Answer: A. A sprite’s appearance

Explanation: A costume controls how a sprite looks. Changing costumes can create simple animation.

Q28 **What is a simple game or project you can make in Scratch?**

A. Maze game
B. Drawing app
C. Animation
D. All of the above

Correct Answer: D. All of the above

Explanation: Scratch can be used to make maze games, drawing apps, animations, stories, and other interactive projects.

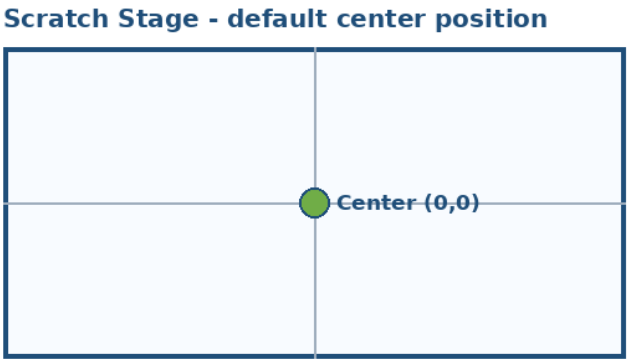
Q29 **In a game, what can happen when a sprite touches the wall?**

A. It stops or bounces back
B. It disappears automatically
C. It changes color every time
D. It increases in size by default

Correct Answer: A. It stops or bounces back

Explanation: A game can be coded so a sprite stops or bounces back when it touches a wall.

Q30 **What is a sprite's default position on the Scratch stage?**



A. Center of the stage
B. Top-right corner
C. Bottom-left corner
D. Top-left corner

Correct Answer: A. Center of the stage

Explanation: The usual coordinate center of the Scratch stage is (0,0), which is the center of the stage.

School Connect Online

Section: Achievers Section

Question block with answer and explanation

Q31 **If you are given the numbers 3, 6, 9, 12, and 15, what is the next number in the sequence?**

A. 16
B. 18
C. 20
D. 21

Correct Answer: B. 18

Explanation: The sequence increases by 3 each time, so the next number is 18.

Q32 **Which of the following numbers is divisible by both 2 and 3?**

A. 14
B. 18
C. 20
D. 25

Correct Answer: B. 18

Explanation: 18 is divisible by 2 and 3. This means it is also divisible by 6.

Q33 **You have 3 red balls, 2 green balls, and 4 blue balls. How many ways can you choose one ball from the set?**

A. 8
B. 9
C. 10
D. 11

Correct Answer: B. 9

Explanation: There are 3 + 2 + 4 = 9 balls, so there are 9 possible single-ball choices.

Q34 **In a sequence of numbers, 4, 8, 16, 32, ____, what is the next number?**

A. 48
B. 64
C. 128
D. 256

Correct Answer: B. 64

Explanation: Each number is doubled, so 32 × 2 = 64.

Q35 **If it takes 4 minutes for a robot to travel 100 meters, how long will it take the same robot to travel 300 meters at the same speed?**

A. 6 minutes
B. 8 minutes
C. 12 minutes
D. 15 minutes

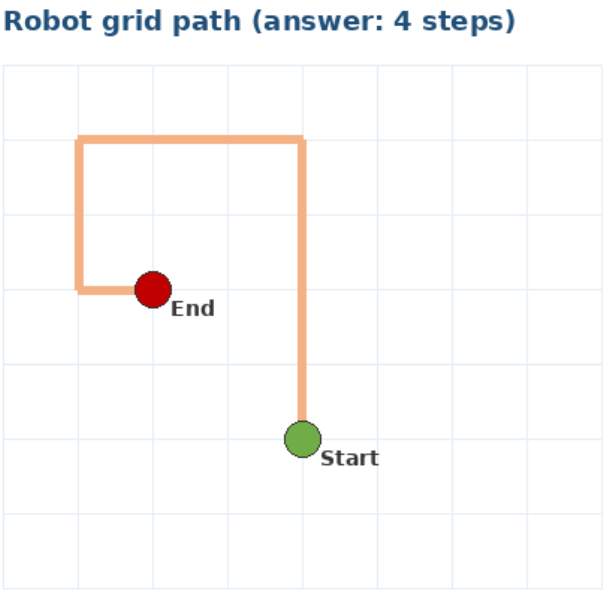
Correct Answer: C. 12 minutes

Explanation: 300 meters is 3 times 100 meters, so the time is 3 × 4 = 12 minutes.

School Connect Online

Q36	**A square has a perimeter of 24 cm. What is the length of one side of the square?** A. 6 cm B. 7 cm C. 8 cm D. 10 cm **Correct Answer: A. 6 cm** Explanation: A square has 4 equal sides, so each side is 24 ÷ 4 = 6 cm.
Q37	**If the pattern is 5, 10, 20, 40, ____, what is the next number in the sequence?** A. 50 B. 60 C. 80 D. 100 **Correct Answer: C. 80** Explanation: Each number is doubled, so 40 × 2 = 80.
Q38	**A puzzle asks: If you are facing North and make three 90-degree right turns, which direction are you facing?** A. South B. East C. West D. North **Correct Answer: C. West** Explanation: Starting north, three right turns take you east, south, and then west.

Q39 **If a robot moves 4 steps forward, 3 steps left, 2 steps backward, and 1 step right, how many minimum grid steps away is the robot from its original position?**



A. 1 step
B. 2 steps
C. 3 steps
D. 4 steps

Correct Answer: D. 4 steps

Explanation: The robot ends 2 steps forward and 2 steps left from the start, so the minimum grid distance back is 2 + 2 = 4 steps.

Q40 **If a pattern alternates between +2 and +3, starting from 1, what will the 10th number in the sequence be?**

A. 15
B. 18
C. 21
D. 23

Correct Answer: D. 23

Explanation: The sequence is 1, 3, 6, 8, 11, 13, 16, 18, 21, 23. Therefore, the 10th number is 23.

School Connect Online

Complete Answer Key

SCO International Coding Olympiad - Class 3 - Set A

1	2	3	4	5	6	7	8	9	10
B	B	B	B	B	A	C	B	B	A
11	12	13	14	15	16	17	18	19	20
B	B	C	A	A	C	B	A	A	A
21	22	23	24	25	26	27	28	29	30
B	A	A	A	A	A	A	D	A	A
31	32	33	34	35	36	37	38	39	40
B	B	B	B	C	A	C	C	D	D

How to Use the Answer Key

Students should first attempt the full paper, then check the answer key. Teachers can use the explanations inside each question block to discuss reasoning, debugging habits, pattern logic, and game-design concepts.

Section-wise Learning Summary

Key learning focus from the solved paper

Section	Learning Focus
Fundamentals of Coding	coding meaning, programs, loops, Scratch, sprites, algorithms, debugging, and conditions
Logic and Reasoning	number patterns, robot movement, odd/even numbers, shapes, arithmetic, and direction logic
Simple Game Creation	maze games, motion blocks, forever/repeat blocks, costumes, stage, sprite movement, and collision behavior
Achievers Section	sequence rules, divisibility, robot-grid reasoning, square perimeter, distance-time reasoning, and alternating patterns

Quick Revision Notes

Before the Coding Olympiad

Concept	Meaning
Algorithm	A clear step-by-step plan for solving a problem.
Loop	A way to repeat instructions without writing them many times.

Conditional Statement	A decision-making instruction that runs when a condition is true.
Sprite	A character or object used in a Scratch project.
Stage	The main Scratch area where sprites appear and move.
Debugging	Finding and fixing mistakes in a program.
Pattern Reasoning	Finding the rule in a sequence or shape arrangement.

Student Readiness Indicator

A student is ready for the next practice level when they can explain simple instructions, identify loops and conditions, trace a robot path, understand basic Scratch terms, and solve pattern-based coding questions with clear reasoning.