

# SCO INTERNATIONAL CODING OLYMPIAD

## CLASS 2 - SOLVED QUESTION PAPER

### Set A | 2025-26

Designed for early-grade learners to build coding confidence through visual logic, ordered steps, patterns, input/output, loops, conditions, variables, events, functions, and debugging.

- professionally formatted question blocks with answer keys and explanations
- age-fit coding reasoning using robots, daily-life algorithms, visual puzzles, and simple Scratch-style ideas
- teacher-friendly solved format for guided preparation, classroom revision, and website learning support
- aligned with SCO Olympiad preparation pathways for future-ready computational thinking

Maths	English	Science	Mental Ability	Finance Knowledge
AI	Entrepreneurship	GK	Coding	Life Skills

## SCO International Coding Olympiad

Class 2 | Set A | Solved Question Paper | 2025-26

### Candidate Guidelines

- Total Questions: 35 | Time: 1 hour | One correct answer for each question.
- Read each question carefully and choose only one option.
- Passage, image, dialogue, code, or step-by-step information is placed inside the related question block.
- This solved version includes the correct answer and explanation after each question to support guided preparation.
- Calculator use is not required. Focus on logic, sequence, input/output, conditions, loops, variables, events, functions, and debugging.

### Question Paper Structure

- Section 1: Fundamentals of Coding - Questions 1 to 10
- Section 2: Visual Logic and Image-Based Coding Thinking - Questions 11 to 15
- Section 3: Coding Conversations and Daily-Life Algorithms - Questions 16 to 30
- Section 4: Achievers Section - Questions 31 to 35

## Section 1: Fundamentals of Coding

### Question 1

What do we call the instructions that tell a computer what to do?

- A. Recipe
- B. Code
- C. Story
- D. Song

**Correct Answer: B. Code**

**Explanation:** Code is a set of instructions written in a special language so the computer knows exactly what actions to perform.

### Question 2

To make a robot move forward two steps and then turn left, which sequence is correct?

- A. Forward -> Turn Left -> Forward
- B. Forward -> Forward -> Turn Left
- C. Turn Left -> Forward -> Forward
- D. Forward -> Turn Left -> Turn Left

**Correct Answer: B. Forward -> Forward -> Turn Left**

**Explanation:** The robot must move forward two times first, and then turn left. The order of commands matters in coding.

### Question 3

Complete the pattern: ▲ ● ▲ ● \_\_

- A. ●
- B. ▲
- C. ○
- D. ■

**Correct Answer: B. ▲**

**Explanation:** The pattern alternates between triangle and circle. After ▲, ●, ▲, ●, the next shape is ▲.

#### Question 4

To draw a square, a robot needs four “move forward” commands and four “turn right” commands. Which command is missing here?

1. Move Forward
  2. Turn Right
  3. Move Forward
  4. Turn Right
  5. Move Forward
  6. Turn Right
  7. Move Forward
- A. Turn Right
- B. Move Forward
- C. Turn Left
- D. Stop

**Correct Answer: A. Turn Right**

**Explanation:** After the fourth “Move Forward,” one more “Turn Right” completes the square path.

#### Question 5

What is debugging in coding?

- A. Finding and fixing mistakes in code
- B. Writing new code
- C. Playing games
- D. Drawing pictures

**Correct Answer: A. Finding and fixing mistakes in code**

**Explanation:** Debugging means checking a program for errors, called bugs, and correcting them so the program works properly.

#### Question 6

Which of these is an input device?

- A. Monitor

- B. Keyboard
- C. Speaker
- D. Printer

**Correct Answer: B. Keyboard**

**Explanation:** A keyboard lets users type letters, numbers, and commands into the computer, so it gives input.

### Question 7

Which device shows you the results of your code?

- A. Monitor
- B. Mouse
- C. Keyboard
- D. Scanner

**Correct Answer: A. Monitor**

**Explanation:** A monitor displays text, images, and output produced by the computer.

### Question 8

Computers use only two states: on (1) and off (0). What does 0 represent?

- A. On
- B. Off
- C. Yes
- D. Ten

**Correct Answer: B. Off**

**Explanation:** In binary thinking, 0 represents the off state and 1 represents the on state.

### Question 9

A step-by-step procedure to solve a problem is called an algorithm. Which of these is an algorithm?

- A. Steps to tie your shoelaces
- B. A fairy tale about a dragon

- C. Lyrics to your favorite song
- D. A colorful painting

**Correct Answer: A. Steps to tie your shoelaces**

**Explanation:** Tying shoelaces follows a clear ordered set of steps, just like an algorithm.

### Question 10

In coding, we sometimes use “if” to check conditions. Which sentence shows an “if” statement?

- A. If it rains, I take an umbrella.
- B. I like apple juice.
- C. The cat is sleeping.
- D. We are going home.

**Correct Answer: A. If it rains, I take an umbrella.**

**Explanation:** The sentence checks a condition, “if it rains,” and then gives an action, “I take an umbrella.”

## Section 2: Visual Logic and Image-Based Coding Thinking

### Question 11

Look at the sequence of shapes. Which shape comes next?



Pattern: red circle, blue diamond, red circle, blue diamond, ?

- A. Red circle
- B. Blue diamond
- C. Triangle
- D. Black circle

**Correct Answer: A. Red circle**

**Explanation:** The shapes alternate red circle and blue diamond. After red circle, blue diamond, red circle, blue diamond, the next is red circle.

### Question 12

Which instruction sequence gets the robot to the star?



- A. Forward -> Forward -> Turn Left
- B. Forward -> Turn Left -> Forward
- C. Turn Left -> Forward -> Forward
- D. Forward -> Turn Right -> Forward

**Correct Answer: B. Forward -> Turn Left -> Forward**

**Explanation:** From the starting position, the robot first moves forward, then turns left to face the star, and then moves forward to reach it.

### Question 13

Four devices are shown/labeled: A: Monitor, B: Keyboard, C: Speaker, D: Printer. Which one is an input device?



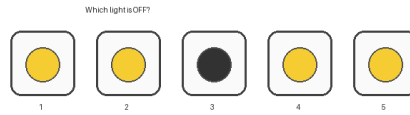
- A. A
- B. B
- C. C
- D. D

**Correct Answer: B. B - Keyboard**

**Explanation:** A keyboard is an input device because it is used to enter information into the computer.

### Question 14

Look at the row of lights. Which light is OFF?



- A. 1
- B. 2
- C. 3
- D. 4

**Correct Answer: C. 3**

**Explanation:** The third light is dark, while the other lights are on.

### Question 15

The image shows steps for brushing teeth: apply toothpaste, brush up and down, and rinse mouth. What is this sequence an example of in coding?



- A. Loop
- B. Algorithm
- C. Variable
- D. Debugging

**Correct Answer: B. Algorithm**

**Explanation:** An algorithm is a step-by-step procedure. These brushing steps are arranged in a clear order to complete a task.

### Section 3: Coding Conversations and Daily-Life Algorithms

#### Question 16

Three smiley faces are displayed in a row and repeated three times. Which coding idea shows “repeat 3 times”?

- A. Sequence
- B. Condition
- C. Loop
- D. Variable

**Correct Answer: C. Loop**

**Explanation:** A loop repeats an action multiple times. Showing the same set of smiley faces again and again represents repetition.

#### Question 17

Which instruction matches this picture?



- A. If it is sunny, wear sunglasses.
- B. If it rains, use an umbrella.
- C. If it is cloudy, go indoors.
- D. If it is night, turn on a lamp.

**Correct Answer: B. If it rains, use an umbrella.**

**Explanation:** The image shows rain. This is an if-then condition: if it rains, use an umbrella.

### Question 18

Which instruction stacks the blocks correctly?



- A. Place red on blue.
- B. Place blue on red.
- C. Swap blocks.
- D. Remove blue block.

**Correct Answer: A. Place red on blue.**

**Explanation:** The picture shows the red block positioned above the blue block.

### Question 19

Teacher: "Ankit, how do I tell the robot to walk straight to the red carpet?"

Ankit: "I say 'Move Forward' every time."

Which coding concept is Ankit using?

- A. Loop
- B. Sequence
- C. Condition
- D. Debugging

**Correct Answer: B. Sequence**

**Explanation:** Ankit is giving instructions in order. A sequence is a set of commands followed step by step.

**Question 20**

Robo: "I keep going in circles and never stop!"

Maya: "You need to add a Stop command after your turns."

What did Maya help Robo do?

- A. Write an algorithm
- B. Create a loop
- C. Debug the code
- D. Use a condition

**Correct Answer: C. Debug the code**

**Explanation:** Maya found and fixed a problem in the robot's instructions. Finding and fixing errors is debugging.

**Question 21**

Sara: "If it is raining, the robot should open its umbrella."

What coding building block is Sara describing?

- A. Loop
- B. Variable
- C. Condition (If...then...)
- D. Sequence

**Correct Answer: C. Condition (If...then...)**

**Explanation:** A condition checks whether something is true before taking action. Here the robot opens the umbrella only if it is raining.

**Question 22**

Teacher: "Adil, repeat the song block three times."

Adil: "Okay, Play -> Play -> Play!"

What construct did Adil manually perform that a loop would handle automatically?

- A. Variable
- B. Loop
- C. Function
- D. Condition

**Correct Answer: B. Loop**

**Explanation:** A loop repeats the same action. Instead of writing Play three times, a loop can repeat it automatically.

### Question 23

Mom: "Show me the steps to brush your teeth."

You: "1. Put on toothpaste. 2. Brush up-down. 3. Rinse."

What is this list of steps called in coding?

- A. Algorithm
- B. Sequence
- C. Loop
- D. Debug

**Correct Answer: A. Algorithm**

**Explanation:** An algorithm is a step-by-step procedure for completing a task.

### Question 24

Robo: "I have a number stored, but I want to remember how many candies I collected."

Teacher: "You need a...?"

- A. Sequence
- B. Variable
- C. Loop
- D. Condition

**Correct Answer: B. Variable**

**Explanation:** A variable stores information, such as a changing candy count.

### Question 25

Friend: "Every time you press the green button, the robot says Hello."

Which coding idea is at work?

- A. Event
- B. Loop
- C. Variable
- D. Debug

**Correct Answer: A. Event**

**Explanation:** An event is something that triggers an action. Pressing the button triggers the robot to say Hello.

### Question 26

Teacher: "Let's fix this. The robot was supposed to turn left but went right."

Which activity are we doing?

- A. Looping
- B. Sequencing
- C. Debugging
- D. Defining a variable

**Correct Answer: C. Debugging**

**Explanation:** The wrong turn instruction is an error. Fixing it is debugging.

### Question 27

Sara: "I want the robot to dance until I clap my hands."

Which code structure matches Sara's wish?

- A. While loop
- B. If statement
- C. Sequence
- D. Variable

**Correct Answer: A. While loop**

**Explanation:** A while loop repeats an action while a condition is true or until a stopping condition is reached.

### Question 28

Robo: "I always say  $1 + 1 = 2$ , but I want to say a different answer."

Teacher: "You must change the...?"

- A. Loop
- B. Variable
- C. Condition
- D. Sequence

**Correct Answer: B. Variable**

**Explanation:** If the answer is stored, changing the variable changes the value the robot says.

### Question 29

Teacher: "I want the robot to ask your name and then greet you."

Student: "So first it needs to get my name from me, then show Hello, [Name]!"

Which command makes the robot receive the name you type?

- A. Output
- B. Input
- C. Loop
- D. Debug

**Correct Answer: B. Input**

**Explanation:** Input is information entered by the user, such as a name typed into a program.

### Question 30

Teacher: "We will put all the steps to draw a square together and name them drawSquare so the robot can use it anytime."

What do we call this named set of instructions?

- A. Variable
- B. Function
- C. Loop
- D. Condition

**Correct Answer: B. Function**

**Explanation:** A function groups a set of instructions under one name so it can be reused easily.

## Section 4: Achievers Section

### Question 31

Teacher: "I asked the robot to move in a perfect square: Forward, Turn Right, Forward, Turn Right, Forward, Turn Right, Forward, Turn Right. But your code has a Turn Left in the middle."

Which command should you correct?

- A. The first Turn Right
- B. The second Forward
- C. The third Turn Left
- D. The last Turn Right

**Correct Answer: C. The third Turn Left**

**Explanation:** A square path requires the robot to turn the same way each time. The Turn Left should be corrected to Turn Right.

### Question 32

Student: "My robot keeps asking, Are you ready? five times before it starts."

Teacher: "That is because you wrapped your If Ready? check inside a Repeat 5 times block."

What should you remove so it asks only once?

- A. The If Ready? block
- B. The Repeat 5 times loop
- C. The final Start command
- D. The last Stop command

**Correct Answer: B. The Repeat 5 times loop**

**Explanation:** The loop is causing the question to repeat five times. Removing it makes the check happen once.

### Question 33

Teacher: "We want the robot to collect apples and remember how many it picked up."

Which coding concept lets the robot store that number?

- A. Sequence
- B. Loop
- C. Variable

D. Function

**Correct Answer: C. Variable**

**Explanation:** A variable holds changing data, such as the number of apples collected.

### Question 34

Student: "My code says Great job! even when the answer is wrong."

Teacher: "You have two say Great job! commands: one inside the If correct block and one afterward."

What must you remove?

- A. The If statement
- B. The say Great job! inside the If
- C. The say Great job! outside the If
- D. The quotation marks

**Correct Answer: C. The say Great job! outside the If**

**Explanation:** The command outside the If block runs every time. Removing it makes the message appear only when the answer is correct.

### Question 35

Teacher: "I need the robot to draw a star shape in each corner of the screen."

Student: "I will write the star steps once, name them drawStar(), and then call drawStar() four times."

What concept is the student using?

- A. Loop
- B. Variable
- C. Function
- D. Condition

**Correct Answer: C. Function**

**Explanation:** A function packages instructions under one name so they can be reused by calling that name.

## Answer Key

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

### Section-wise Learning Summary

- Fundamentals of Coding: code, algorithms, input/output, binary states, debugging, and if conditions.
- Visual Logic: pattern completion, robot movement, input devices, on/off states, and everyday algorithms.
- Coding Conversations: loops, conditions, variables, events, functions, and debugging through daily-life examples.
- Achievers Section: higher-order correction, reuse of functions, loop removal, and conditional-message logic.

**End of Solved Question Paper**