

# SCO INTERNATIONAL CODING OLYMPIAD

## CLASS 1 QUESTION PAPER

Set A | Total Questions: 35 | Time: 1 hour

**Designed for early coding readiness: sequencing, algorithms, loops, condition rules, AI examples, visual patterns, and logical reasoning.**

- age-fit question paper for Class 1 / primary-level learners globally
- student-friendly visual reasoning blocks with clean answer keys and explanations
- professionally formatted for SCO International Olympiad website and printable use

Class 1	Question Paper	Set A	Coding	1 Hour
Algorithms	AI Examples	Patterns	Logic	Explanations

## SCO International Coding Olympiad

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### Candidate Guidelines

- Fill in your name, registration ID, class, and contact details before starting the paper.
- Answer all questions. There is only one correct answer for each question.
- Use a pencil or blue/black pen for marking answers. Calculator use is not allowed.
- Read each visual pattern carefully before selecting your option.
- For website practice mode, the answer and explanation are provided with each question block.

Name		Registration ID	
Class	1	Contact No.	

## Question Paper Structure

Section	Question Nos.	Focus Area	Questions
Section 1	1-10	Basic coding concepts	10
Section 2	11-15	Simple AI applications	5
Section 3	16-20	Pattern recognition games	5
Section 4	21-35	Achievers logical puzzles	15

### Section 1: Basic Concepts (Questions 1-10)

**Q.1**  
1 mark

**What is coding?**

<b>A.</b> Writing stories only	<b>B.</b> Giving clear instructions to a computer
<b>C.</b> Drawing pictures only	<b>D.</b> Playing games only

**Answer: B.** Coding means giving clear step-by-step instructions that a computer can follow.

**Q.2**  
1 mark

**Which order shows a correct sequence of steps for brushing teeth?**

<b>A.</b> Brush teeth -> Put toothpaste on brush -> Open toothpaste cap	<b>B.</b> Open toothpaste cap -> Put toothpaste on brush -> Brush teeth
<b>C.</b> Eat lunch -> Cook food -> Take a plate	<b>D.</b> Wear shoes -> Wear socks -> Tie laces

**Answer: B.** A sequence is a correct order of steps. We open the cap first, put toothpaste on the brush, and then brush teeth.

**Q.3**  
1 mark

**In a simple flowchart, which shape is commonly used to show a decision such as Yes/No?**

<b>A.</b> Circle	<b>B.</b> Triangle
<b>C.</b> Diamond	<b>D.</b> Rectangle

**Answer: C.** A diamond is commonly used for a decision point in a flowchart.

**Q.4**  
1 mark

**What may happen if we give a computer wrong instructions?**

<b>A.</b> It will always guess the right answer	<b>B.</b> It will always work correctly
<b>C.</b> It may not work properly	<b>D.</b> It will stop being a computer

**Answer: C.** Computers follow instructions exactly. Wrong or unclear instructions can make the result wrong.

**Q.5**  
1 mark

**What is an algorithm?**

<b>A.</b> A type of dance	<b>B.</b> A set of steps to solve a problem
<b>C.</b> A computer screen	<b>D.</b> A magic trick

**Answer: B.** An algorithm is a planned set of steps used to complete a task or solve a problem.

**Q.6**

1 mark

**What can we use to move a character in many beginner coding games?**

- A.** Arrow commands  
**C.** Paintbrush only

- B.** Eraser  
**D.** Scissors

**Answer: A.** Arrow commands such as up, down, left, and right are often used to move characters.

**Q.7**

1 mark

**Which action is the best example of a loop?**

- A.** Jump once  
**C.** Clap hands 5 times

- B.** Eat breakfast one time  
**D.** Open the door once

**Answer: C.** A loop repeats an action. Clapping hands 5 times repeats the same action.

**Q.8**

1 mark

**A rule says, "If it is raining, take an umbrella." What should happen?**

- A.** Always take an umbrella  
**C.** Take an umbrella only if it is raining

- B.** Never take an umbrella  
**D.** Take an umbrella and sunglasses every time

**Answer: C.** This is a condition. The umbrella action happens only when the condition is true.

**Q.9**

1 mark

**What does debugging mean in coding?**

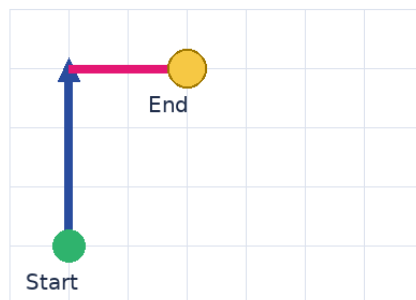
- A.** Watching cartoons  
**C.** Making a computer dirty

- B.** Finding and fixing mistakes in code  
**D.** Adding more pictures only

**Answer: B.** Debugging means finding mistakes, also called bugs, and fixing them so the program works.

**Q.10**

1 mark

**A robot moves forward 3 steps, turns right, and moves forward 2 steps. What is true about its final position?**


Move forward 3 steps, turn right, then move forward 2 steps.

- A.** It is back at the start  
**C.** It has not moved at all

- B.** It is in a new place  
**D.** It moved only in circles

**Answer: B.** The robot follows two movement instructions, so it ends in a new place away from the start.

## Section 2: Examples of AI - Simple Applications (Questions 11-15)

**Q.11**

1 mark

**Which of these is an example of Artificial Intelligence (AI)?**

- |   |  |
|---|--|
| <b>A.</b> A toy car that moves only when pushed               | <b>B.</b> A calculator that adds numbers |
| <b>C.</b> A robot that can listen, talk, and answer questions | <b>D.</b> A picture book                 |

**Answer: C.** AI can help machines do smart tasks such as listening, understanding, and answering.

**Q.12**

1 mark

**Which AI application helps people talk to their phones?**

- |                      |   |
|----------------------|---|
| <b>A.</b> Flashlight | <b>B.</b> A voice assistant such as Alexa or Siri |
| <b>C.</b> Bicycle    | <b>D.</b> Toy train                               |

**Answer: B.** Voice assistants use AI to understand spoken words and respond.

**Q.13**

1 mark

**How can AI help in online shopping?**

- |  |  |
|--|--|
| <b>A.</b> It suggests products a person may like | <b>B.</b> It forces people to buy things |
| <b>C.</b> It stops every purchase                | <b>D.</b> It turns the phone into a shop |

**Answer: A.** AI can study choices and suggest useful or related products.

**Q.14**

1 mark

**Which AI application can help doctors?**

- |                           |   |
|---------------------------|---|
| <b>A.</b> A singing doll  | <b>B.</b> A robot or smart system that helps in medical tasks |
| <b>C.</b> A coloring book | <b>D.</b> A football  |

**Answer: B.** AI-based systems can help doctors study information and assist in some medical tasks.

**Q.15**

1 mark

**What can AI do in smart homes?**

- |                                     |  |
|-------------------------------------|--|
| <b>A.</b> Paint the walls by itself | <b>B.</b> Control lights, fans, or temperature automatically |
| <b>C.</b> Play only with children   | <b>D.</b> Turn books into toys                               |

**Answer: B.** Smart home systems can use sensors and rules to control devices automatically.

**Section 3: Pattern Recognition Games (Questions 16-20)**
**Q.16**

1 mark

**What comes next in the pattern shown?**
**The number of stars increases by 1 each time**

**A.** 5 stars

**B.** 2 stars

**C.** 4 stars

**D.** 1 star

**Answer: C.** The pattern increases by one star each time: 1, 2, 3, so the next group has 4 stars.

**Q.17**

1 mark

**Which number comes next in this pattern? 2 -> 4 -> 6 -> 8 -> ?**
**A.** 9

**B.** 10

**C.** 11

**D.** 12

**Answer: B.** The numbers increase by 2 each time, so  $8 + 2 = 10$ .

**Q.18**

1 mark

**Look at the shapes. Which one comes next?**
**Shape pattern**

**A.** Triangle

**B.** Circle

**C.** Red circle

**D.** Green square

**Answer: A.** The pattern repeats triangle, triangle, circle. After the second circle, the next shape is a triangle.

**Q.19**

1 mark

**Which word completes the pattern? Cat, Dog, Cat, Dog, Cat, ?**
**A.** Elephant

**B.** Fish

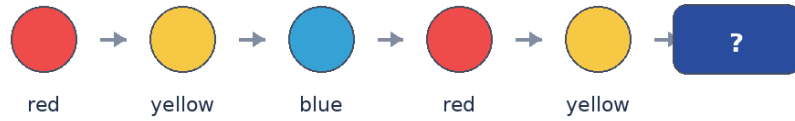
**C.** Dog

**D.** Lion

**Answer: C.** The words alternate Cat, Dog. After Cat comes Dog.

**Q.20**

1 mark

**What is missing in this color pattern?**
**Color pattern**

**A.** Red

**B.** Yellow

**C.** Blue

**D.** Green

**Answer: C.** The pattern repeats Red, Yellow, Blue. After Red and Yellow, the missing color is Blue.

## Section 4: Achievers Section - Logical Puzzles and Matching Patterns (Questions 21-35)

**Q.21**

1 mark

**Which shape completes the pattern?**
**Repeating block: two green circles, two triangles**

**A.** Green circle

**B.** Triangle

**C.** Blue circle

**D.** Yellow square

**Answer: A.** The repeating block is two green circles followed by two triangles. After two triangles, the next shape is a green circle.

**Q.22**

1 mark

**What comes next in this number pattern? 1 -> 3 -> 5 -> 7 -> ?**
**A.** 6

**B.** 8

**C.** 9

**D.** 10

**Answer: C.** The pattern shows odd numbers increasing by 2. After 7 comes 9.

**Q.23**

1 mark

**If Dog means a dog and Cat means a cat, then Elephant means what?**
**A.** Lion

**B.** Elephant

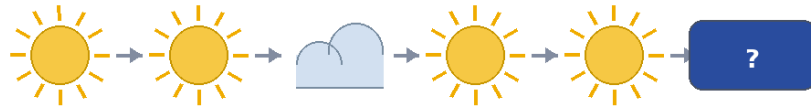
**C.** Monkey

**D.** Tiger

**Answer: B.** The word Elephant names the animal elephant.

**Q.24**

1 mark

**What is missing in this pattern?**
**Weather pattern**

**A.** Sun

**B.** Cloud

**C.** Moon

**D.** Star

**Answer: B.** The pattern repeats Sun, Sun, Cloud. After two suns, the missing picture is Cloud.

**Q.25**

1 mark

**Find the odd one out.**

**A.** Car

**B.** Taxi

**C.** Tractor

**D.** House

**Answer: D.** Car, taxi, and tractor are vehicles. A house is not a vehicle.

**Q.26**

1 mark

**If Apple means apple and Banana means banana, what does Grapes mean?**
**A.** Orange

**B.** Grapes

**C.** Mango

**D.** Watermelon

**Answer: B.** The word Grapes names the fruit grapes.

**Q.27**

1 mark

**What is the missing number? 10 -> 8 -> 6 -> 4 -> ?**
**A.** 5

**B.** 2

**C.** 3

**D.** 7

**Answer: B.** The numbers decrease by 2 each time, so  $4 - 2 = 2$ .

**Q.28**

1 mark

**Which one is different because it is not usually round?**
**A.** Apple

**B.** Orange

**C.** Lemon

**D.** Banana

**Answer: D.** A banana is usually long and curved, while the others are more round.

**Q.29**

1 mark

**If Bird means bird and Fish means fish, then Lion means what?**
**A.** Tiger

**B.** Dog

**C.** Lion

**D.** Elephant

**Answer: C.** The word Lion names the animal lion.

**Q.30**

1 mark

**What comes next in this pattern?**
**Alternating pattern**

**A.** Blue circle

**B.** Triangle

**C.** Red circle

**D.** Yellow square

**Answer: B.** The pattern alternates blue circle, triangle. After a blue circle comes a triangle.

**Q.31**

1 mark

**Which number should replace the question mark? 4, 9, 16, 25, ?, 49**
**A.** 30

**B.** 36

**C.** 40

**D.** 44

**Answer: B.** These are square numbers:  $2 \times 2 = 4$ ,  $3 \times 3 = 9$ ,  $4 \times 4 = 16$ ,  $5 \times 5 = 25$ ,  $6 \times 6 = 36$ ,  $7 \times 7 = 49$ .

**Q.32**

1 mark

**Find the odd one out: Dog -> House, Cat -> House, Bird -> House, Fish -> House.**
**A.** Dog -> House

**B.** Cat -> House

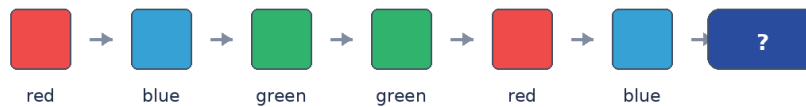
**C.** Bird -> House

**D.** Fish -> House

**Answer: D.** Dogs, cats, and some birds can live in or near a house. A fish usually lives in water, not a house.

**Q.33**

1 mark

**What comes next in this color-block pattern?**
**Block pattern**

**A.** Red square

**B.** Blue square

**C.** Green square

**D.** Yellow square

**Answer: C.** The repeating block is red, blue, green, green. After red and blue, the next color is green.

**Q.34**

1 mark

**Complete the missing number:  $1 + 3 = 4$ ,  $2 + 5 = 7$ ,  $3 + 7 = 10$ ,  $4 + 9 = ?$** 
**A.** 11

**B.** 12

**C.** 13

**D.** 14

**Answer: C.** Each line uses normal addition.  $4 + 9 = 13$ .

**Q.35**  
1 mark

Which is the correct next step to complete the order?

**Complete the order**



- A. Chick
- C. Egg

- B. Hen
- D. Nest

**Answer: A.** The simple life-cycle order is hen, egg, chick. So the missing next step is chick.

# Answer Key

SCO International Coding Olympiad | Class 1 | Set A

Q.No	Ans	Q.No	Ans	Q.No	Ans	Section
1	B	13	A	25	D	Section 1: Q1-Q10
2	B	14	B	26	B	Section 2: Q11-Q15
3	C	15	B	27	B	Section 3: Q16-Q20
4	C	16	C	28	D	Section 4: Q21-Q35
5	B	17	B	29	C	
6	A	18	A	30	B	
7	C	19	C	31	B	
8	C	20	C	32	D	
9	B	21	A	33	C	
10	B	22	C	34	C	
11	C	23	B	35	A	
12	B	24	B			

