CODING & ROBOTICS OLYMPIAD GRADE 3

DATE: 25 AUGUST 2026

TIME: 60 MINUTES

INSTRUCTIONS:

This booklet consists of multiple-choice questions, true or false and computational questions

The total of this booklet is out of fifty marks.

You have 60 minutes for the paper.

Read the questions carefully before answering.

Visit the website: www.saolympiads.co.za.

NAME OF LEARNER:	
SCHOOL:	**GRADE:**

SECTION A: MULTIPLE CHOICE QUESTIONS

1. What is the purpose of an algorithm? (1)
   A. To decorate a computer
   B. To give step-by-step instructions
   C. To play games
   D. To fix hardware

2. What does coding allow a computer to do? (1)
   A. Make decisions on its own
   B. Follow instructions given by a user
   C. Turn itself on
   D. Charge its battery

3. Which device is used to enter information into a computer? (1)
   A. Monitor
   B. Keyboard
   C. Printer
   D. Projector

4. Why are loops useful in programmes? (1)
   A. They make programmes shorter
   B. They repeat instructions automatically
   C. They stop errors
   D. They delete code

5. What is the main goal of debugging? (1)
   A. To add new features
   B. To find and fix errors
   C. To slow down the programme
   D. To design graphics

6. Which item can be programmed using code? (1)
   A. A notebook
   B. A robot
   C. A pencil
   D. A desk

7. What does it mean to run a programme? (1)
   A. To erase the programme
   B. To execute the instructions
   C. To print the code
   D. To rename the file

8. How does the internet help learners with coding? (1)
   A. It turns computers off
   B. It provides information and learning resources
   C. It replaces teachers
   D. It works without electricity

9. Which of the following is an output device? (1)
   A. Mouse
   B. Keyboard
   C. Monitor
   D. Webcam

10. Which action can be controlled in Scratch? (1)
    A. Reading a book
    B. Moving a sprite
    C. Writing a letter
    D. Printing homework

11. In Scratch, what is a sprite? (1)
    A. A block of code
    B. A character you control
    C. A sound effect
    D. A background

12. Why do programmers use variables? (1)
    A. To store information that can change
    B. To decorate the stage
    C. To stop scripts
    D. To play sounds

13. What happens when you click the green flag in Scratch? (1)
    A. The project closes
    B. The programme starts running
    C. The sprite disappears
    D. The code is deleted

14. Which block is best for repeating actions in Scratch? (1)
    A. Move block
    B. Loop block
    C. Stop block
    D. Hide block

15. How can a sprite display text on the screen? (1)
    A. Using a “say” block
    B. Pressing the keyboard
    C. Drawing text
    D. Changing colour

16. Why do learners use the internet at school? (1)
    A. To play games
    B. To do research and learn
    C. To avoid homework
    D. To watch movies

17. Which action shows responsible use of technology? (1)
    A. Sharing passwords
    B. Using devices for schoolwork
    C. Downloading unknown files
    D. Leaving devices on overnight

18. What does programming a robot mean? (1)
    A. Decorating it
    B. Giving it instructions to follow
    C. Turning it off
    D. Replacing its battery

19. Which behaviour keeps you safe online? (1)
    A. Sharing personal details
    B. Clicking unknown links
    C. Using strong passwords
    D. Downloading pop-ups

20. Why is teamwork useful in robotic projects? (1)
    A. It slows work down
    B. It helps share ideas and solve problems
    C. It lets one person do everything
    D. It removes responsibility

(20)

SECTION B: TRUE OR FALSE STATEMENTS

1. A loop allows instructions in a programme to repeat. (1)
   A. True
   B. False
2. In Scratch, sprites cannot be moved using code. (1)
   A. True
   B. False
3. The green flag in Scratch is used to start a programme. (1)
   A. True
   B. False
4. Debugging means adding mistakes to a programme. (1)
   A. True
   B. False
5. Keeping passwords private is safe online practice. (1)
   A. True
   B. False

(5)

SECTION C: COMPUTATIONAL THINKING

(5)

1. Create a Scratch project where a sprite introduces itself and then moves in a square.

'move 10 steps' block	'say 'Hello, I am your sprite' for 2 seconds' block
'repeat 4 times' block	'turn 90 degrees' block
	'when green flag clicked' block

2. Programme a Scratch project that teaches the correct order of washing hands and drying hands. (5)

'when green flag clicked' block	'if <answer = "wash hands">' block
'say "Correct! Now dry your hands."' block	'ask "What do we do first?" and wait' block
'else' block	

3. Create a clickable sprite that reacts with sound and movement. (5)

'play sound' block	'move 15 steps' block
'change colour effect' block	'when this sprite clicked' block
'wait 1 second' block	

4. Programme a Scratch project where a sprite counts from 1 to 5 aloud. (5)

'repeat 5 times' block	'when green flag clicked' block
'say (counter) for 1 second' block	'wait 0.5 seconds' block
'change counter by 1' block	

5. Create an animation where two sprites move and spin when a key is pressed. (5)

'each sprite: move 20 steps' block	'forever' block
'repeat' block	'each sprite: turn 15 degrees' block
	'when key pressed' block

TOTAL = 50 MARKS