Everything You Need to Know About the ST Science Ministry Exam

The ministerial examination, commonly known as the ministry exam, is a compulsory written exam that students take at the end of Secondary IV. It counts for 50% of the theory component mark. The exam is divided into 3 parts, and students have 3 hours and 15 minutes to complete it.

An Exam Divided in 3 Parts

Part	Question Type	Number of Questions	Number of Questions in Each Major Area		
			Earth and Space	Material World	Technological World
A	Multiple-choice	15	4	10	1
B	Constructed-response	5	1	3	1
C	Technological analysis	5	0	0	5

Documents Provided

- Student Booklet (part A, B, and C)
- Scannable answer sheet (part A)
- Reference document
  - List of formulas and quantities
  - Periodic table of elements
  - Diagrams of the technical object

Authorized Materials

- Pencils
- Ruler
- Calculator

Forbidden

Any data or programs stored on a calculator must be deleted before the exam.

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ST Concepts Subject to Assessment

Material World

Solutions

- Concentration (g/L)
- Concentration (%)
- Concentration (ppm)
- pH scale
- Ions
- Electrical conductivity

Organization of Matter

- Rutherford-Bohr atomic model
- Groups in the periodic table
- Periods in the periodic table

Chemical Changes

- Combustion
- Photosynthesis and respiration
- Acid-base neutralization
- Balancing chemical equations
- Law of conservation of matter

Electricity and Magnetism

- Electrical charge
- Static electricity
- Ohm's law
- Electrical circuits
- Relationship between power and electrical energy
- Forces of attraction and repulsion
- Magnetic field of a live wire

Energy Transformations

- Law of conservation of energy
- Energy efficiency

Technological World

Mechanical Engineering

- Links
- Guiding control
- Motion transmission systems
- Speed changes
- Motion transformation systems

Electrical Engineering

- Power supply
- Conduction
- Protection
- Insulation
- Control
- Transformation of energy

Materials

- Constraints
- Properties of materials
- Plastics
- Degradation and protection
- Ceramics

Earth and Space

- Carbon cycle
- Permafrost
- Catchment areas
- Oceanic circulation
- Glaciers and pack ice
- Energy resources
- Greenhouse effect
- Salinity

Study tools

Summary by Major Area

Earth and Space
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Material World
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Technological World
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Practice Tools

Simulations

Part A
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Part B
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Technological Analysis

Food dispenser
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Carousel
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Conveyor toaster
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