## **Online science test**

#### **Instructions**

- 1. You have 1 hour and 30 minutes to complete each part of the test.
- 2. Each question or statement is followed by **five possible answers**. Only **one** is correct. Select the **best answer** for each question.
  - 3. Scoring: +1 point for a correct answer, -0.25 points for an incorrect answer, and 0 points for no answer.
    - 4. Mobile phones must be turned off during the test.
    - 5. Calculators and electronic dictionaries are not allowed.
  - 6. No documents are allowed, except paper bilingual dictionaries, provided they do not contain any formulas.

## The online science test consists of two parts.

#### **Part 1: Mathematics and Applied Mathematics**

- 7. Each question is labeled with a difficulty level: (+), (++), or (+++).
  - 8. All candidates are expected to answer questions marked (+).
- 9. Candidates from mathematics departments are expected to answer questions marked (+++).

#### Part 2: Physics / Chemistry / Life Sciences and Environment

- 10. Each question is labeled with a difficulty level: (+), (++), or (+++).
- 11. All candidates are expected to answer questions marked (+) in Physics.
- 12. Depending on their current field of study, candidates are expected to answer questions marked (+++) in the corresponding subject.
  - 13. Begin by answering the questions related to your own field of study.

### ParisTech schools' expectations

For the science test, you will need to answer questions across various topics. Each question includes an indication of its difficulty level: + for normal, ++ for difficult, and +++ for very difficult.

Expectations vary by school and topic: some schools expect you to answer the most difficult questions, while others do not.

For example, if you are particularly interested in AgroParisTech (see table below):

- · You are not required to answer questions in Optics, Electromagnetism, or Electrical Engineering.
  - You must answer all "+" level questions in Mechanics.
- You are expected to answer "+" and "++" level questions in Mathematics, Thermodynamics, and Chemistry.
  - · You must answer all questions in Life Sciences / Environment.

However, even if you are not targeting a specific school, it is important to answer a broad range of questions — at least all "+" level ones — so that your application can be considered by all schools.

If you choose to answer "+++" level questions, even when they are not specifically expected by a school, it will still be viewed positively.

	Maximum level of question difficulty expected by subject area, depending on the school											
	Test – Part I				Test - Part II							
ParisTech schools	Mathematics				Physics						Chemistry / Life Sciences and Environment	
	General maths	Algebra	Analysis	Probability	Mechanics	Thermodynamics	Optics	Electromagnetism	Electrical engineering	Quantum physics	Chemistry	Life sciences /Environment
AgroParisTech	++	++	++	++	+	++					++	+++
Arts et Métiers	+++	++	+	+	+++	++	+	++	++			
Chimie ParisTech - PSL	++	+	+	+	+	+	+	+	+	+	+++	++
ESPCI Paris - PSL	+++	++	+	+	+	+++	++	+++	+	+++	+++	+
Institut d'Optique	+	+	+	+	+	+	+++	+++	++	+++		
Mines Paris - PSL	+++	++	++	++	+++	+++		++	++	+	+	