

MCQ

Information on the first exam

The first exam is a multiple-choice question with quantification of uncertainty.

The use of degrees of certainty enables the student to assess the level of knowledge of the answer given. The scoring system, based on decision theory (Leclercq et al. 1993), may seem odd but it has been designed in such a way that:

- telling the truth is the strategy that earns the most points;
- those who self-assess well earn more points than if we applied a corrective scale taking into account the probabilities of having the correct answer randomly.

```
d 50% & 1 & +16 & +3 \
50% and 70% & 2 & +17 & +2 \
70% and 85% & 3 & +18 & 0 \
85% and 95% & 4 & +19 & -6 \
95% and 100% & 5 & +20 & -10 \end{tabular} \end{table}
```

In general, students self-assess realistically, and benefit from degrees of certainty. Their score is better than if it had been calculated solely on the basis of the number of correct answers.

Table 1: Points repartition

| If you consider that your answer has a probability of being correct between... | Choose the degree of certainty... | You'll get the following points for ... answer | |
|--|-----------------------------------|--|-----------|
| | | correct | incorrect |
| 0% and 25% | 0 | +13 | +4 |
| 25% and 50% | 1 | +16 | +3 |
| 50% and 70% | 2 | +17 | +2 |
| 70% and 85% | 3 | +18 | 0 |
| 85% and 95% | 4 | +19 | -6 |
| 95% and 100% | 5 | +20 | -10 |

Leclercq, D., E. Boxus, P. de Brogniez, H. Wuidar, and F. Lambert. 1993. “The TASTE Approach: General Implicit Solutions in Multiple Choice Questions (MCQs), Open Books Exams and Interactive Testing.” In *Item Banking: Interactive Testing and Self-Assessment*, edited by Dieudonné A. Leclercq and James E. Bruno, 210–32. Berlin, Heidelberg: Springer. https://doi.org/10.1007/978-3-642-58033-8_17.