

Faculty of Electrical Engineering, Mathematics and Computer Science
Delft Institute of Applied Mathematics

UNIT CODES: TW1-13
TITLE OF PAPER: Introduction to Programming
TYPE: midterm
EXAM DURATION: 3 hours

AUTHORISED MATERIALS

This is a open book exam. with the following permitted items.

- Blank pages for use as working sheets (provided).
- Python documentation, accessible through the link on the desktop.
- Lecture notes, either printed yourself, or the digital copies in the S: drive.

The exam contains FIVE questions. ALL questions must be answered. The exam is worth 100 marks in total.

SECTION A

Show that the following expression is the MLE for the variance assuming a Gaussian distribution.

$$\hat{\sigma}^2 = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2$$

20 marks

Total: 20 marks

SECTION B

M2_A title

40 marks

Second question.

(a) Part a.

4 marks

(b) More stuff.

10 marks

(c) Final part.

6 marks

Total: 60 marks