

# Exam Cover

Student name: \_\_\_\_\_

ID-number: \_\_\_\_\_

## THE HAGUE UNIVERSITY OF APPLIED SCIENCES

FACULTY TECHNOLOGY,  
INNOVATION & SOCIETY

Location: **Delft**

<b>Program:</b> <b>Electrical Engineering</b>	<b>Course / Test:</b> <b>MATH</b>
Lecturer: J. op den Brouw Second Lecturer: B. Kuiper	Date: Thursday 6 july 2017 Time: 13:00 h – 14:30 h
Group: EP21, EP22, EQ2D Coursecode: E-MATH-th1	Number of pages: 2 (including this page) Number of questions: 3

### With this exam you will receive:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Lined answer paper | <input type="checkbox"/> Questions written on exam       |
| <input type="checkbox"/> Squared paper                 | <input type="checkbox"/> Answer form ABCDE               |
| <input checked="" type="checkbox"/> Scratch paper      | <input type="checkbox"/> Answer form Yes/No              |
| <input type="checkbox"/> Lined cover sheet             | <input type="checkbox"/> Answer form Yes/No/Questionmark |
| <input type="checkbox"/> Attachments: _____            | <input type="checkbox"/> Other: _____                    |

### Allowed tools:

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Simple calculator               | <input checked="" type="checkbox"/> Drawing tools (ruler, pencil) |
| <input checked="" type="checkbox"/> Graphic/programmable calculator | <input checked="" type="checkbox"/> Hand written notes: _____     |
| <input type="checkbox"/> Computer                                   | <input checked="" type="checkbox"/> Books/readers: Reader MATH    |
| <input type="checkbox"/> Formula sheet(s): _____                    |   |

### Attention:

Please hand in your copy of the exam.

### Grading of examination:

Total grading points is 60.

### To be handed in:

- ☒ All documents marked with name and ID-code, sorted per document
- ☐ All documents marked with name and ID-code, sorted per student (in lined cover sheet)

### Important:

*For this exam, the rules of the Programme and Examination regulations apply. This document is present in the exam room.*

*This exam is printed **double sided**;*

*Write your name and studentnumber on all documents.*

**Question 1** (10 pt)Calculate  $1 + 1$ **Question 2** (30 pt)

Please find the antiderivative of the following functions:

a)  $\int x \ln x \, dx$  (10 pt)

b)  $\int \sin^2 x \, dx$  (10 pt)

c)  $\int x^2 \, dx$  (10 pt)

**Question 3** (20 pt)Given the function:  $f(x) = x^3 + 3x^2 + 5x + 1$ . Find the extremae.

Grading table

Question:	1	2	3	Total
Points:	10	30	20	60
Score:				