Exam Cover

THE HAGUE UNIVERSITY OF APPLIED SCIENCES
FACULTY TECHNOLOGY, INNOVATION & SOCIETY
Location: Delft

Student name: _____

ID-number: _____

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

With this exam you will receive:

☒ Lined answer paper
☐ Squared paper
☒ Scratch paper
☐ Lined cover sheet
☐ Attachments: _____
☐ Questions written on exam
☐ Answer form ABCDE
☐ Answer form Yes/No
☐ Answer form Yes/No/Questionmark
☐ Other: _____

Allowed tools:

☒ Simple calculator
☒ Graphic/programmable calculator
☐ Computer
☐ Formula sheet(s): _____
☒ Drawing tools (ruler, pencil)
☒ Hand written notes: _____
☒ Books/readers: Reader MATH

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 de primitives of the following functions:

a) $\int x \ln x \, \mathrm{d}x$ (10 pt)

b) $\int \sin^2 x \, \mathrm{d}x$ (10 pt)

c) $\int x^2 \, \mathrm{d}x$ (10 pt)

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