Informatics 1, 2nd midterm (2019-11-11)

The answers should fit next to the questions, if you used a separate paper let us know clearly!

1. How to specify a CSS style-file for a HTML webpage? $(1\ point)$

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- 2. Write the HTML code for the following embedded list: (3 point)
 - 1. introduction
 - a
 - b
 - 2. conclusion
 - X
 - y

3. Write the HTML and CSS code of the following table. Every other cell should have red text or red background, alternating. Use the same class for every even cell and for every odd cell!

(3 point)

A	В	С
1	2	3

4. Write a local link within a webpage which jumps to the *first* row. Use id for this. The link should be white once visited. Write the HTML and CSS code as well! (3 point)

This is the first row.

This is a <u>link to the first row</u>.

5. Write the LATEX code of these math formulas! (4 point)

a)
$$\int \cos(2x) \, \mathrm{d}x = \frac{1}{2}\sin(2x) + c$$

b)
$$(a + b\sqrt{-1}) \cdot (a - b\sqrt{-1}) = a^2 + b^2$$

$$c) \prod_{i=1}^{n} p_i^{\beta_i + 1}$$

d)
$$\frac{\left(\frac{1+\sqrt{5}}{2}\right)^n - \left(\frac{1-\sqrt{5}}{2}\right)^n}{\sqrt{5}}$$

6. Write the following system of equations with the use of align* (2 point)

$$3x - 7y + z = 0$$
$$x + y - z = -1$$

7. Write the following theorem (and its proof) in LATEX and use reference in it (frame not included): (2 point)

Lemma 1. Every integer can be decomposed into product of primes and the decomposition is unique.

Lemma 1. is called the fundamental theorem of arithmetics.

- 8. Answer the LATEX questions! (2 point)
- a) How to write the author in an article?
- b) What is the origin of the name LATEX?