

The use of supplementary material is prohibited. Please answer to all questions.

1. Your task is to implement a **static website** for a person teaching **mathematics** in comprehensive school at Tampere. The content of the site consists of basic information about the comprehensive school level mathematics, links to additional resources and home assignments.

Please answer the following questions based on the task:

- The objective is to create a **simple, high quality website**. In your opinion, what are the **three most important factors** that affect the quality of the end result? Justify your answers briefly and accurately in a way also the headmaster of the specified school in charge of paying your fee would understand. (3 points)
- Define the concepts **structural link**, **associative link** and **referential link** and give a detailed example of how each of the links could be used in the website designed in part a) of this question. (3 points)

2. Define the concepts and explain how they are related to hypermedia (1 point/concept):

- Human-Computer Interaction
- Memex (Memory Extender)
- resource representation (according to W3C)
- CSS Box Model
- adaptive hypermedia
- Document type definition

3. Answer the questions:

- Justify the next statement: making of hypermedia can be compared to **design**. (2 points)
- Define two main **usability problems** in hypermedia and describe how **support for navigation** can help to solve these problems. (2 points) *cog. overload,*
- Describe briefly the basic concept of **client/server –model** and give an **example** of a hypermedia system based on the model (2 points)

4. Follow the instructions and answer the questions:

- Which **three conditions** must a **valid HTML-document** fulfil? (2 points)
- The following "XHTML Basic Document" has some grammatical errors. **Correct the errors** and justify your answers, also bearing in mind the correct usage of elements. (3 points)

LISTING 1. XHTML BASIC -DOCUMENT

```

octype <?xml version="1.0" encoding="iso-8859-1"?>
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="FI">
  <head> <link>
    <link rel="stylesheet" type="text/css" ref="screen.css">
  </head>
  <body>
    <h1>XHTML Basic</h1>
    <p>XHTML Basic is the least common denominator of
      the HTML-language.</p>
    text bold -->
  </body>
</html>

```

Handwritten corrections in the image:
 - A handwritten arrow points to the opening tag of the first `<link>` element, with the word "octype" written next to it.
 - The closing tag for the first `<link>` element is corrected from `</link>` to `</link>`.
 - The `<h1>` tag is corrected from `<h1>` to ``.
 - The `<p>` tag is corrected from `<p>` to ``.
 - The closing tag for the `<p>` element is corrected from `</p>` to ``.
 - The `<!--` comment is corrected from `<!--` to `<!--`.
 - The `<!--` comment is corrected from `<!--` to `<!--`.

- Finally, describe how you would **check** an HTML-document if you had a computer at hand (1 point)