



Institutionen för Data-  
och Systemvetenskap



STOCKHOLMS  
UNIVERSITET



KUNGLIGA  
TEKNISKA  
HÖGSKOLAN

**\*:96 (SU) and 2I1263 (KTH)  
Internet Application Protocols  
and Standards**

Exam 2002-12-02

**The following documents are allowed during the exam:**

1. Documents in Compendium 1, printed on coloured paper.
2. Documents in Compendium 2, printed on coloured paper.
3. Documents in Compendium 3, printed on coloured paper.
4. Documents in Compendium 7, printed on coloured paper.
5. Ordinary language dictionaries between English and Swedish.

*Note 1: Compendium 4, 5, 6, 8 and 9 are not allowed during the exam. The exam supervisor will check that you do not have copies of compendiums 4, 5, 6, 8 and 9 printed on colour paper. Bringing such compendiums on coloured paper is cheating and can result in suspension of your rights to study.*

*Note 2: Underscoring and short handwritten notes in the yellow documents are allowed.*

*Note 3: A few copies of these compendiums (part 1-3 and 7) will be available for loan during the exam for students who have not bought the compendiums.*

**Important warning**

It is not acceptable to answer an exam question by just a verbatim quote from the allowed documents above. You must show that you understand the question and your answer by using your own words.

Jacob Palme will come around 17:30-18:00 to the exam room to answer questions regarding the exam.



# \*:96 (SU) and 2I1263 (KTH) Internet Application Protocols and Standards

Exam 2002-12-02

Continued from the previous page.

No.	Question in English	Question in Swedish	Max points
1.	Disabled people often want all objects (such as pictures, table cells, etc.) in HTML labelled with text attributes which describe the objects. Which HTML constructs are meant to be used/suitable for this?	Handikappade personer behöver ofta förklarande text-etiketter på HTML-objekt (bilder, tabellceller, etc.). Vilka HTML-konstruktioner är avsedda/lämpliga för detta ändamål?	6

*Answer*

- The ALT tag on images to make images understandable for those who cannot see them (2).
- The TITLE attribute on grouping elements (DIV, TABLE, TR, TD, etc.), to make it easier to search in a page with many subgroups. Title is allowed on most HTML elements (2).
- The SUMMARY attribute on tables (1).
- The LANG attribute, allowed on most elements (1).
- The ABBR and ACRONYM elements (1).
- The CAPTION element in tables (1).
- The LONGDESC attribute on an image or a frame can refer to a longer description in a separate file (1).

Note: This question was not meant to ask in general how to make pages better for disabled people, but which specific constructs exist for this in HTML. And CSS was not included in the question. So saying that "font-size: small" in a style sheet is better than "font-size: 10px" is not included in what was expected.



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No.	Question in English	Question in Swedish	Max points
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2 Write HTML code for the following table:      Skriv HTML-kod för följande tabell:      6

		Extra fast	
		Yes	No
Preorder	Yes	90 kr	70 kr
	No	80 kr	60 kr

		Extra snabbt	
		Ja	Nej
Förköp	Ja	90 kr	70 kr
	Nej	80 kr	60 kr

### Answer

```
<html>
<head>
<style type="text/css">
<!--
td { font-family: Verdana }
th { font-family: Verdana }
-->
</style>
</head>
<body>
<table border="1">
  <tr>
    <th colspan="2" rowspan="2">&nbsp;  </th>
    <th colspan="2">Extra fast</th>
  </tr>
  <tr>
    <th>Yes</th>
    <th>No</th>
  </tr>
  <tr>
    <th rowspan="2">Preorder</th>
    <th>Yes</th>
    <td>90 kr</td>
    <td>70 kr</td>
  </tr>
  <tr>
    <th>No</th>
    <td>80 kr</td>
    <td>60 kr</td>
  </tr>
</table>
</body>
</html>
```

**Note:** There are of course numerous different good solutions. I chose to use `<th>` in my solution above, because it usually implies bold and centered text. And I chose to indicate font with CSS since this gives a shorter solution. A single `<font type="Verdana">` before the `<table>` tag would be even shorter, but does not work, I am not sure why.



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No.	Question in English	Question in Swedish	Max points
-----	---------------------	---------------------	------------

- |   |  |   |   |
|---|--|---|---|
| 3 | Write an ABNF specification of the syntactical elements used in the solution of task 2 above. (Note: This is not the same as the ABNF for the particular HTML code used in your solution of task 2.) | Skriv ABNF-specifikation av de syntaktiska element som användes i lösningen av uppgift 2 ovan. (OBS: Detta är inte samma sak som ABNF för den speciella HTML kod som du använt i din lösning av uppgift 2.) | 6 |
|---|--|---|---|

### *Answer*

The syntax below does just cover the code in the answer to answer 2. It does not cover other uses of HTML.

```
html = "<html> htmlcontent "</html>" FWSP
```

```
htmlcontent = FWSP head FWSP body FWSP
```

```
head = "<head>" headcontent "</head>" FWSP
```

```
headcontent = FWSP "<style type=" DOUBLEQUOTE "text/css"
                DOUBLEQUOTE ">" FWSP "<!--" FWSP *csstext FWSP "-->" FWSP
```

```
csstext = csstag FWSP "{ font-family: Verdana }" FWSP
```

```
csstag = "td" | "th"
```

```
body = "<body>" FWSP bodycontent FWSP "</body>" FWSP
```

```
bodycontent = table
```

```
table = "<table border=" QUOTECHAR *DIGIT QUOTECHAR ">" FWSP
        tablecontent FWSP "</table>" FWSP
```

```
tablecontent = *row FWSP
```

```
row = "<tr>" rowcontent "</tr>" FWSP
```

```
rowcontent = *cell FWSP
```

```
cell = "<" ( "td" | "th" ) ">" FWSP *cellattribute FWSP ">" FWSP
```

```
cellcontent FWSP "</" "td" | "th" ">" FWSP
```

```
cellattribute = ("rowspan" | "colspan" ) "=" QUOTECHAR *DIGIT
                QUOTECHAR FWSP
```

```
cellcontent = *CHAR
```

```
FWSP = *( space | tab | return | linefeed )
```



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No.	Question in English	Question in Swedish	Max points
4	<p>Which of the file types in FTP are commonly used today, and what is the difference in how information is transferred for each type?</p> <p><i>Answer</i></p> <p>Binary: Everything transmitted exactly as is.</p> <p>Text:</p> <ol style="list-style-type: none"><li>1. Line breaks transformed between different representations in different platforms.</li><li>2. Character set translations may occur.</li></ol>	<p>Vilka filtyper i FTP är det som används allmänt numera, och vad är skillnaden i hur information överförs för var och en av typerna?</p>	6