



Institutionen för Data-
och Systemvetenskap

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

Exam 2002-05-22



STOCKHOLMS
UNIVERSITET



KUNGLIGA
TEKNISKA
HÖGSKOLAN

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 17:00 to the exam room to answer questions regarding the exam.



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No.	Question in English		Max points
1.	Write an ASN.1 specification to transfer information about a series of books. For each book, there should be a list of translations to multiple languages. For each translation, title, publication year and the names of one or more translator(s) should be indicated. For the whole book, one or more author(s) and original title and publication year should be indicated.	Skriv en ASN.1-specifikation för att överföra information om ett antal böcker. För varje bok, skall överföras en lista över översättningar till ett eller flera språk. För varje översättning skall anges titel, publiceringsår och namnet på en eller flera översättare. För originalboken skall anges en eller flera ursprungliga författare, ursprunglig titel och ursprungligt publiceringsår.	6
	<i>Answer 1:</i> BookSeries ::= SEQUENCE OF Book Book ::= SEQUENCE OF Versions Version ::= SEQUENCE { title UniversalString, publication-year INTEGER, authors AuthorList OPTIONAL, translators AuthorList OPTIONAL, language UniversalString, original ENUMERATED (no(0), yes(1)) } AuthorList SEQUENCE OF UniversalString	<i>Answer 2:</i> BookSeries ::= SEQUENCE OF Book Book ::= SEQUENCE { original Publication, translations SEQUENCE OF Publication} Publication ::= SEQUENCE { title UniversalString, publication-year INTEGER, language UniversalString, writer SEQUENCE OF UniversalString }	
2	Transfer of e-mail is often described as the transfer of envelope and content information. What kind of information is usually said to belong to the envelope, and what kind of information is usually said to belong to the content?	När man överför e-post, beskriver man det ofta som överföring av ett kuvert och ett innehåll inuti kuvertet. Vilken information brukar anses höra till kuvertet, och vilken information brukar anses höra till innehållet?	6
	<i>Answer:</i> Envelope is information needed during transport, such as: <ul style="list-style-type: none">• Actual recipients in this transmission (1). Different transmissions of the same message in different directions can have different recipients on the envelope (1).• Sender for this transmission of the message (1). This need not be the same as the author in the content, for example a message forwarded from a mailing list usually has the list maintainer as sender on the envelope (1).• Requests for delivery notifications, etc. (1) Information only needed by the recipient is stored in the content. (1)		



No. Question in English

Max points

3	Is there a tool, in XML, to handle references between different objects described in different places of an XML structure? If so, how?	Finns det, i XML, någon metod att hantera referenser mellan olika objekt, som beskriver på olika ställen i en XML-struktur? Om ja, hur?	6
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Answer:

Yes, the object referred to is given an attribute with the type ID (2), and the object referring is given attribute of type IDREF (2) or IDREFS (2) (depending on if it can contain more than one references).

4	Describe the difference between, and the advantages of handling layout of HTML documents using either: 1. Tables 2. CSS (Cascading Style Sheets) 3. Frames	Beskriv skillnaden mellan, och fördelarna med att hantera layout i HTML med vardera av följande tre metoder: 1. Tabeller 2. CSS (formatmallar) 3. Ramar (Frames)	6
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Answer:

<i>Property</i>	<i>Tables</i>	<i>CSS</i>	<i>Frames</i>
Browser support.	Widely	Not always fully	Widely
Adapting to different screen sizes.	Not so easy	Better	Not so easy
Exact layout control.	Good	Good when it works	Not so good
Advanced format and font control.	Restricted	Very good	Restricted
Download time	Some browsers will not display a table until it has been downloaded completely	May need access to a separat CSS file	Separate files for each frame
Separate scrollable regions and sources for each region.	No	No	Yes
Support for common layout for many pages, which can be changed in one operation for all the pages, separation of formaatting and content.	No	Yes, also a format class can be defined and then used in multiple places.	Restricted