



Institutionen för Data-
och Systemvetenskap



STOCKHOLMS
UNIVERSITET



KUNGLIGA
TEKNISKA
HÖGSKOLAN

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

Exam 2001-08-31

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.

Note 2: Some students may have the compendiums from the previous time this course was given. Some of these compendiums have yellow paper only on the front page of the allowed documents, and there was a separate document Appendix A: ASN.1 syntax (basic items) which is allowed during the exam.

Note 3: Compendium 4 was wrongly printed on yellow paper in August 1998, but is not allowed during the exam.

Note 4: 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.

Questions during the exam

OBS!!! Jacob Palme will not come to the exam rooms during the exam, but you can reach me around 10.30 to 11 at phone number 08-664 77 48.

Notification of result by e-mail

Print your e-mail address on the front cover page of the exam, so that I can notify you by e-mail if you did not pass the exam. Print legibly!



Continued from the previous page.

No.	Question in English	Question in Swedish	Max points
1.	Varför har man valt att uforma standarden så att begäran om "Delivery Status Notification" sänds via SMTP, och inte via ett fält i brevhuvudet?	Why have the standards makers chosen to specify that requests for Delivery Status Notifications are to be sent via SMTP, and not via a header in the mail heading?	6
Answer:			
	<ol style="list-style-type: none">1. This makes it easier to separate requests for different recipients.2. Easier to ensure that the notification can be correlated with the original recipient.3. Delivery Notification is handled in the MTA layer, not the UA layer, and requests should then also be handled in the MTA layer.4. Earlier bad experience with non-standard functions in the RFC822-header.		
2	Hur är det möjligt att i XML upprätta en lista över förkortningar, och sedan använda dessa förkortningar istället för den längre text de är ersättning för?	How can you, using XML, specify a list of abbreviations, and then use these abbreviations instead of the longer text, which they are replacement for?	6
	Use entities. Define, for example:		
	<code><!ENTITY KTH "Kungliga Tekniska Högskolan"></code>		
	And then use the following		
	<code><DESCRIPTION>&KTH; is a technical university.</DESCRIPTION></code>		
	which is identical to		
	<code><DESCRIPTION>Kungliga Tekniska Högskolan is a technical university.</DESCRIPTION></code>		



No.	Question in English	Question in Swedish	Max points
3	Write a specification, suitable for becoming an IETF standard, of a facility to have a message to a Usenet Newsgroup delivered only to those members of the Newsgroup, who have a certain profession, like medical doctors or salespersons.	Skriv en specifikation, som skulle kunna bli en IETF-standard, av en funktion för att ordna så att ett meddelande i Usenet News bara kommer fram till de medlemmar i nyhetsgruppen, som har ett visst yrke, t.ex. bara till läkare eller bara till försäljare.	6
4	En HTML-frame innehåller en hyperlänk. Hur kan du ange (a) att om användaren klickar på länken, så byts innehållet i denna frame ut, medan övriga frames innehåll bibehålls, (b) att om användaren klickar på länken byts hela innehållet i webbläsarens fönster ut.	A link is contained in an HTML frame. How can you indicate (a) that clicking the link will replace the content of this frame, leaving the other frames unchanged, (b) that clicking the link will replace the whole browser window content.	6

Answer

```
profession      = "Profession:" [LWSP]
                  professionname 1*(", " [LWSP] professionname)

professionname = 1*(ALPHA)
```

The "Profession" header specifies a list of professions. A message with this header should only be distributed to people with this profession.

Answer:

(a) The attribute `target="_self"` can be specified to the `<A>` tag specifying the link, but this is not required, since this is the default behaviour.

(b) Add the attribute `target="_top"` to the `<A>` tag specifying the link.