



Institutionen för Data-
och Systemvetenskap



STOCKHOLMS
UNIVERSITET



KUNGLIGA
TEKNISKA
HÖGSKOLAN

***:96 (SU) and 211263 (KTH)
Internet Application Protocols
and Standards**

Exam-2007-12-20-solved.doc

The following documents are allowed during the exam:

1. Documents in Compendium 1, printed on colored paper.
2. Documents in Compendium 2, printed on colored paper.
3. Documents in Compendium 3, printed on colored paper.
4. Documents in Compendium 7, printed on colored paper.
5. Documents in Compendium 9, printed on colored paper.
6. Ordinary language dictionaries between English and Swedish.

Note 1: Compendium 0, 4, 5, 6 and 8 are not allowed during the exam.

Note 2: The exam supervisor will check that you do not have copies of the disallowed compendiums. Bringing such compendiums on colored paper is cheating and can result in suspension of your rights to study.

Note 3: Underscoring and short handwritten notes in the yellow documents are allowed.

Note 4: A few copies of the allowed compendiums will be available for loan during the exam for students who have not brought 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 be available for clarification of exam questions by coming to the exam room at about 15:30.

7.5 hp or 6 hp?

Most students will study this course segment in its present, 7.5 hp shape. However, some students may have chosen to take the course segment in its old, 6 hp shape. This exam, however, is only for the 7,5 hp shape. The 6 hp exam was on the 15th December.

The difference is that the 7,5 shape of the course segment includes the following topics not covered by the old 6 hp course segment: Webdav, Bittorrent, RSS, Podcasting.



No.	Question in English	Question in Swedish	Max points
1	<p>You have files on your web server in the following file structure:</p> <ul style="list-style-type: none">- web-site-folder<ul style="list-style-type: none">- images-folder<ul style="list-style-type: none">- picture-2.jpeg- html-docs-folder<ul style="list-style-type: none">- index.html- images-folder<ul style="list-style-type: none">- picture-1.jpeg <p>The HTML document index.html contains -references to the two pictures. Which relative URL can be used to load these pictures when displaying this HTML document?</p>	<p>Filerna på en web-server är lagrade i följande filstruktur:</p> <ul style="list-style-type: none">- web-sajt-mapp<ul style="list-style-type: none">- bild-mapp<ul style="list-style-type: none">- bild-2.jpeg- html-dok-mapp<ul style="list-style-type: none">- index.html- images-mapp<ul style="list-style-type: none">- bild-1.jpeg <p>HTML dokumentet index.html innehåller -referenser till de två bilderna. Vilka relativa URL-er kan användas för att ladda dessa bilder vid visning av detta HTML-dokument?</p>	6
2	<p>What kind of “locking” of files are specified in WEBDAV. Compare pros and cons with other “locking” modes.</p>	<p>Vilken typ av “låsning” av filer specificeras i WEBDAV. Jämför för- och nackdelar med andra låsningsprinciper.</p>	6

Solution:

<P>

Here is picture 1:

<P>

Here is picture 2:

</P>

Solution:

Shared (soft) locks: People who retrieve a resource for editing are warned if the resource has been locked by someone else. Pros: No one is stopped from modifying a resource. Cons: No full security against loss of information if two people independently update the full resource.

Exclusive (hard) locks: People who try to modify a resource are prevented from doing this if the resource has been locked by someone else. Pros: Full security against lost updates. Cons: Someone who needs to update a resource cannot do this if someone else has locked it.

A WEBDAV server does not have to supply any locking capability. If it does provide locking, it can choose to provide only Shared locks, or only Exclusive locks, or both.



No.	Question in English	Question in Swedish	Max points
3	Write an ASN.1 specification for describing a journey, passing a variable number of places, each place specified with its name as a text string.	Skriv en ASN.1-specifikation för att beskriva en resa genom ett variabelt antal orter, där varje ort beskrivs med sitt namn som en textsträng.	6
	Solution: Journey ::= SEQUENCE OF Place Place ::= UniversalString		
4	The authorfield in e-mail headers contains the author name in the format shown by this example: From: John Doe <john-doe@foo.bar> Describe the different elements of this structure and how the information in them is to be used.	Avsändarfältet i ett e-post-huvud innehåller författarens namn i ett format som visas i detta exempel: Beskriv de olika elementen i denna struktur och hur den information de ger är avsedd att användas.	6
	Solution: "John Doe" is a user-friendly, not necessarily unique, mailbox description. "<john-doe@foo.bar>" is a unique address for one single mailbox. "john-doe" is a unique mailbox name for one mail server. "foo.bar" is a unique domain name of one mail server.		