EKSAMEN / EXAM

TTM4100

22 05 2017



LES REGLENE FØR DU STARTER/STARTAR! READ THE RULES BEFORE YOU START!

Skriv kandidatenummere Write your candidate nu				
1.1				
Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False
1.1.1	1.1.2	1.1.3 🔀 🗌 1.1.8 🔀	1.1.4 \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\) \(1.1.5
1.2				
Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False
1.2.1 \(\sum \) \(\sum \) 1.2.6 \(\sum \) \(\sum \)	1.2.2	1.2.3 \(\sum \)\(\sum \)	1.2.4 \(\sum \) \(\sup \) 1.2.9 \(\sup \) \(\sup \)	1.2.5
1.3				
Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False
1.3.1 \(\sum \) \(\sum \)	1.3.2	1.3.3	1.3.4	1.3.5
1.4				
Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False
1.4.1 \(\sum \) \(\sum \) 1.4.6 \(\sum \) \(\sum \)	1.4.2	1.4.3 \(\sum \)\(\sum \) 1.4.8 \(\sum \)\(\sum \)	1.4.4	1.4.5 1.4.10
1.5				
Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False	Riktig Galt True False
1.5.1	1.5.2	1.5.3 \(\sum \)\(\sum \)	1.5.4 \(\) \(\) 1.5.9 \(\) \(\)	1.5.5 \(\sum \)\(\sum \) 1.5.10 \(\sum \)\(\sum \)

As shown above we accept "True", "False", or "No answer" as correct on statements 1.1.4 and 1.3.10. Reasons:

- 1.1.4: We forgot to include some information about parameters in the statement, so it may be false in some special cases. Was supposed to be true, as shown in a figure in the textbook.
- 1.3.10: Even though I would argue that it is better to not use WEP, since using it could give you a false sense of security, I guess it can be argued that it can at least protect you against your neighbour using your internet access for free. But e.g. WPA is available everywhere now! Please use it instead!

Kontroller:	Eksamensvaktens signature / Invigilator's signature				
Kandidatenr. på alle sider Common kondidatenr over alt					
Samme kandidatenr. over alt					

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Skriv kandidatenummeret ditt her ⇒⇒

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Write your	candidate number here ⇒				
2 NOTE:	• The sum of number of answers	on thi	s nar	ıe (Ta	sk 2) should not be > 8 (to avoid minus points)
2.11012.	Summen av antall svar på denn	e side	en (Ta	ask 2)	bør ikke være > 8 (for å unngå minuspoeng)
0.4					
2.1					
c), d),	, f)				
	·•				
2.2					
d), g)					
2.3					
c)					
2.4					
b) c)	, and/or e) – see below	,			
Alternativ	ves e) and f) are outside of the	curri	culu	m and	d should not have been included as
alternativ	ves. e) also happens to be wer amongst the 8 choices yo	TRU	E! F	or this	s reason we have accepted e) also as a
	5				
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Write your candidate number here ⇒			

3. (One answer for each subtask / ett svar for hver deloppgave) 3.1
c)
3.2
e)
3.3
a)
3.4
d)
3.5
e)
-
3.6
g) (or an expression showing how this can be found)

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4 (Max. 3 short sentences on e	ach subtas	sk/ Mak	s. 3 ko	rte setninç	ger på hve	r deloppg	ave)	
8.1 Buffer to absorb varia	tions in	end-to	-end	delay a	nd give	smooth	ı playback.	
				y				
4.2								
Real-time interactive of time for retransmission								
4.3								
4.3								
To give smooth / time	-correct	ed pla	ybacl	ζ.				
4.4								
Extra information is act to recreate lost inform			•	•	•			sec
4.5								
Extra delay introduced	d on both	h the s	ende	r and re	ceiver	sides.		