

SOLUTION TO EXAMINATION QUESTION

EE 4L MSc	Year 2007/2008	Sessional <input type="checkbox"/> Resit <input checked="" type="checkbox"/> Special <input type="checkbox"/> (Tick as appropriate)	Examiner ...IS.....
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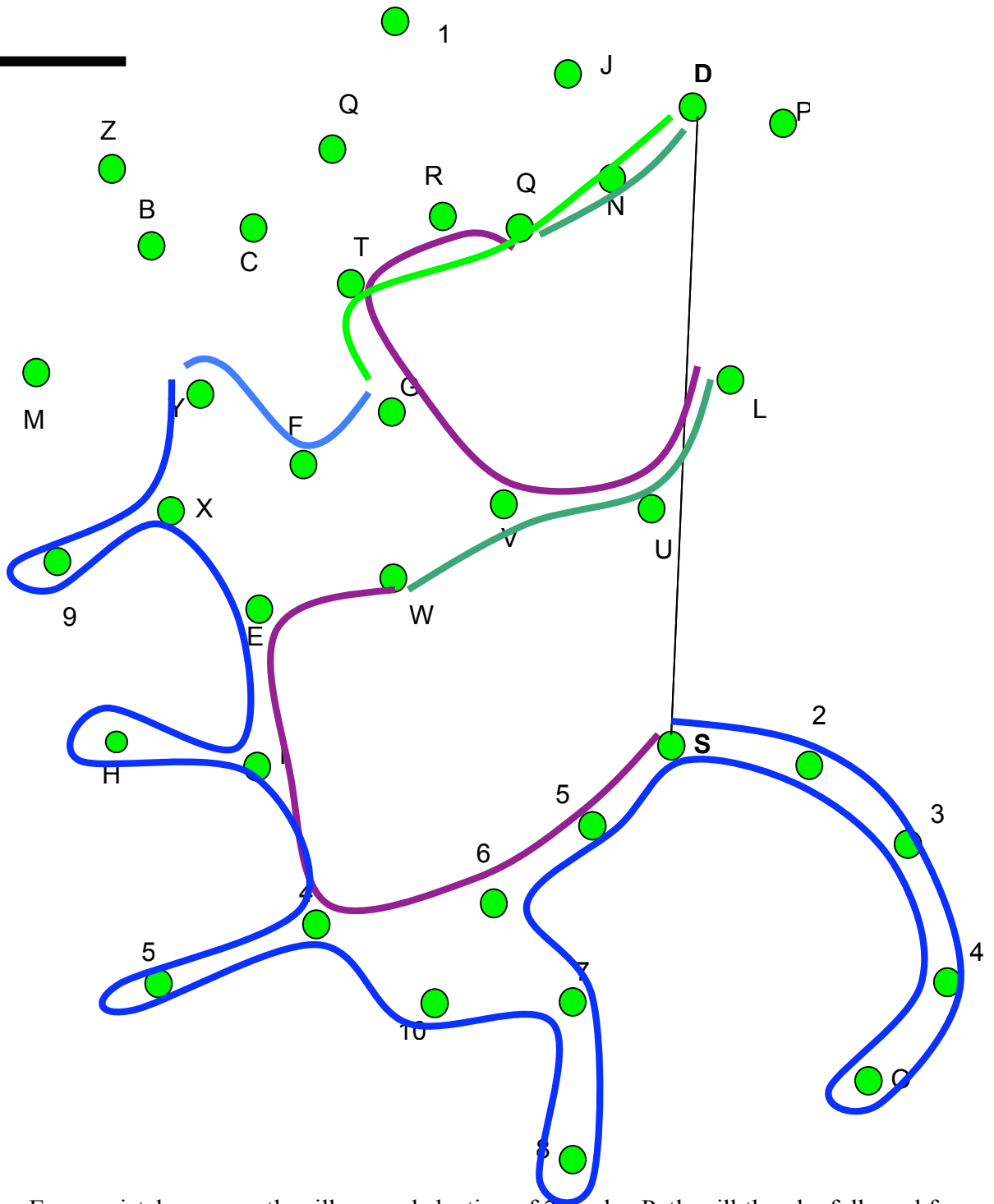
Marks Allocated	QUESTION NO: <u> 3a (i) </u>
8	<p>1+ S transmits; 2: $1/2$, 9: $1/3$, 10: $1/1$, 4: $1/4$</p> <p>1+ 4 transmits; 10: $1/1-1/4=3/4$, 9: $1/3-1/4=1/12$; 2: $1/2-1/4=1/4$; 12: $1/1$, 13: $1/2$, 14 and 16 out</p> <p>2+ 9 transmits: 13, 5 out, 7: $1/3$, 2: $1/4-1/12=1/6$, 12: $1/1-1/12=11/12$, 10: $3/4-1/12=2/3$</p> <p>1+ 2 transmits: 7: $1/1-1/6=5/6$, 11: $1/1$, 12: $11/12-1/6=3/4$, 10: $2/3-1/6=1/2$</p> <p>1+ 10 transmits: 6: $1/1$, 7: $5/6-1/2=1/3$, 11: $1/1-1/2=1/2$, 12: $3/4-1/2=1/4$</p> <p>1+ 12 transmits: 6 out, 7: $1/3-1/4=1/12$, 11: $1/2-1/4=1/4$</p> <p>1 7 transmits: 11 and 3 out.</p> <p>For every correct row marks will be given as allocated.</p> <p>QUESTION NO: <u> 3a (ii) </u></p> <p>2 The variant (timeout, degree, ID) is expected to result in fewer retransmissions because selected nodes tend to have more neighbours and thus fewer nodes remain to be covered by future retransmissions.</p> <p>1 mark for correct answer and 1 mark for justification.</p>

SOLUTION TO EXAMINATION QUESTION - Continuation Sheet

Marks Allocated	Continuation Sheet No: _____ Ques No: _____ EE/MSc EE4L Year: 2007/08
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8

QUESTION NO: 3b(i)



Every mistake on a path will mean deduction of 2 marks. Path will then be followed from indicated mistaken node without further deduction unless another similar mistake is made.

QUESTION NO: __3b_(ii)_

The variant using GG is expected to have smaller average hop count in GFG routing because GG is denser than RNG (RNG is a subset of GG), and therefore has more edges. More edges leads to fewer edges on faces and therefore to fewer hops.