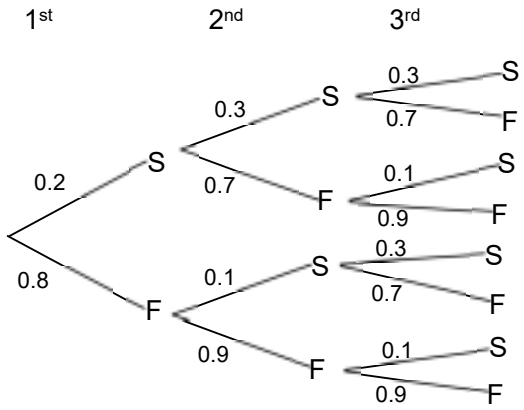
Question	Answer	Marks	Guidance
(a)		**B1**	First and second jumps correct with probabilities and outcomes identified.
		B1	Third jump correct with probabilities and outcomes identified.
		2	
(b)	SFF $0.2\times0.7\times0.9 = 0.126$ FSF $0.8\times0.1\times0.7 = 0.056$ FFS $0.8\times0.9\times0.1 = 0.072$	**M1**	Two or three correct 3 factor probabilities added, correct or FT from part **6(a)**. Accept unsimplified.
	[Total = probability of 1 success =] 0.254 $\left(\frac{127}{500}\right)$	**A1**	Accept unsimplified.
	[Probability of at least 1 success = $1-0.8\times0.9\times0.9=$]0.352 $\left(\frac{44}{125}\right)$	**B1 FT**	Accept unsimplified.
	P(exactly 1 success | at least 1 success)= $\frac{their\ 0.254}{their\ 0.352}$	**M1**	Accept unsimplified.
	0.722, $\frac{127}{176}$	**A1**	$0.7215 < p \leqslant 0.722$
		5	

Question	Answer	Marks	Guidance
(c)	$0.8\times0.9\times0.9\times0.1\times0.3\times0.3=0.005832$ [FFFSSS] $0.2\times0.3\times0.3\times0.7\times0.9\times0.9=0.010206$ [SSSFFF]	**M1**	$a \times b \times c \times d \times e \times f$ FT from *their* tree diagram. Either *a, b* and *c* all = 0.8 or 0.9 (at least one of each) and *d, e* and *f* all = 0.1 or 0.3 (at least one of each). Or *a, b, c* = 0.2 or 0.3 (at least one of each) and *d, e, f* = 0.7 or 0.9 (at least one of each).
		A1	Either correct. Accept unsimplified.
	[Total =] 0.0160[38]	**A1**	
		3	